NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL
MANGALORE - 575 025 INDIA

Annual & Audit Report 2019-20



NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL

MANGALORE - 575 025 INDIA

ANNUAL REPORT 2019-20

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NITK SURATHKAL – AT A GLANCE

GOVERNANCE

NITK is governed by the Board of Governors, which consists of representatives of the Government of India, Government of Karnataka, Industry, Alumni, and other Nominees. The Chairman of the Board is nominated by the Government of India. The Director is the administrative head of the Institute. NITK an "Institute of National Importance", is governed by NIT Act 2007 and statutes laid down by Government of India. Reconstituted Board of Governors is in place since September 2011.

TEAM NITK

14 Departments

249 highly qualified and dedicated faculty

158 committed supporting staff

5775 talented and motivated students

LIST OF DEPARTMENTS

- Applied Mechanics & Hydraulics
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Electrical & Electronics Engineering
- Information Technology
- Mathematical & Computational Sciences
- Mechanical Engineering
- Metallurgical & Materials Engineering
- Mining Engineering
- Physics

SCHOOLS

- School of Management

Academic Programs

- B.Tech. – 9 disciplines
- M.Tech. – 25 Specializations
- M.Tech. (Research) – All Specializations MBA
- MCA
- M.Sc. (Chemistry) M.Sc. (Physics)
- Ph. D. – offered in all departments

All the Departments of the Institute are recognized QIP centres for admission of teachers of both Engineering colleges and Polytechnics for their post-graduate & doctoral studies.

INTERDISCIPLINARY CENTERS OF EXCELLENCE

Disaster Risk Reduction Innovation

Material Research

Sustainable Technologies

System Design (Virtual Instrumentation)

Wireless Sensor Networks

ASSOCIATED CENTRES

Centre for Continuing Education, R&D center for - clay, Roofing Tiles & Ceramic Products, Industry Institute Partnership Cell; NITK Science and Technology Entrepreneurs Park (NITK-STEP).

CAMPUS

295 acres of lush green beach-side campus located at Srinivasnagar, Surathkal Mangalore. Departments & facilities on Eastern and Western sides of NH-66 with connectivity through a 2-lane vehicular underpass.

Well connected by rail and road to the rest of country. Flights available to major Indian cities and International destinations.

FACILITIES & SUPPORTS

150 + Classrooms, 140+ laboratories

12 hostel blocks for boys, 5 hostel blocks for girls. Mega Hostel for boys with 1512 single-seater rooms. New Ladies Hostel with 347 single –seater room. Internet connectivity (1Gpbs, 155 Mbps, 6000 nodes) Central computer Center, Central Library, E-Library, On-line access to journals 1200-capacity Auditorium, 1800-capacity Open-air theatre, Co- Operatives stores, Post office, Banks, ATMs, Health Care Centre with many visiting specialist doctors, Yoga Centre, 3 Campus schools (Kannada & English Medium), Guest House, Food Court and Canteens, International standard Swimming – Pool, Sports Grounds for cricket, hockey, football floodlit Courts for Basketball, Volley ball and Tennis, NCC– 2nd Karnataka Engineering Company, Surathkal Innovation Challenge (SIC), Student Internship Progaramme (SIP).

BUDGET (2019-20)

Total Financial Outlay Rs. 174.06 Crores Internal Revenue Generated Rs. 61.68 Crores Consultancy & Testing Earnings Rs.1.8 Crores Corpus Fund of more than Rs. 231 Crores

PUBLICATIONS (2019-20)

International Journals – 938 National Journals -12

International Conference – 486 National Conference – 34

DOCTORAL OUTPUT

2016 -17 - 57 candidates

2017- 18 - 58 candidates

2018 -19 – 124 candidates

2019-20-116 candidates

candidates Doctoral students on rolls –859

EXTRA AND CO-CURRICULAR ACTIVITIES

More than 30 clubs, societies and professional body chapters are active conducting regular activities through elected leaders and representatives. “INCIDENT’ and “ENGINEEER” are popular cultural and technical annual festivals. NITK has won the overall championship of Inter NIT Sports consecutively for the last 3 years.

SCHOLARSHIPS & MEDALS

Several well known and prestigious scholarship (27) awards and medals (66) are on offer for students at all levels. This is in addition to all regular scholarships of Govt. of India and Other State Governments.

Career Development Centre (Formerly Training And Placement)

NITK is ranked among the top institutions for student placements. During 2019-20. UG placements 90% and 57% PG students got placement through the campus selection. The department also facilitates internships for students within India and overseas.

MOUs between Foreign Countries:

1. 20th August ,2019, 5 Years, Hewlett Packed Enterprise Globalsoft Pvt. LTD, Bangalore Initiating research collaboration activities with NITK Faculty on areas of Mutual Interest, Engaging NITK students in potential internship activities and in-semester projects, Conducting periodic workshop /seminars (with HPE experts and organised by NITK)on topics of mutual interest at NITK Surathkal .Faculty and students of NITK could be Participants, Organising webinars, conference , coding Competitions etc, Explore potential setup of lab facility at NITK, to explore research avenues in high performance computing and other research activities.
2. 31st August, 2019, (Renewed MOU),3 Years, Robert Bosch Engineering and Business Solutions Limited (RBEI),Bangalore Mechanical/ Electronics/Collaborative research and student Internship.
3. 15th December , 2019, 5 years, Indian Institute of Technology Jammu, To Promote defence research, National and International academic cooperation in education, research and consultancy:-

27th March ,2020, 31.03.2021(1 Year), Tecnimont Private Ltd, Mumbai Implementing Bio waste Recycling Pilot Plant Project and providing two Maire Tecnimont Research Scholarship for Sustainable Development.

Exchange of materials in education, research and consultancy, Publications, and academic information;

Exchange of faculty and research scholars;

Exchange of students

Joint research and meetings for education, research and consultancy ;

Technical assistance, training for defence personnel, faculty students and the local community.

Both the institute will share their resources for the benefit of students, faculty and research scholars of the institutes.

03rd January, 2020, 10 Years , Indian Space Research Organisation (ISRO) Bengaluru, Research Activities.

9th January,2020, 3 Years , L&T Technology Services Pvt. Ltd, Research Activities.

10th January, 2020,5 years , Tashkent Institute of Irrigation and Agricultural Mechanization Engineer (TIIAME)Uzbekistan, International Academic Cooperations.

15th January, 2020, 3 years, Kompetenzzentrum Holz GmbH (Renewed MOU)Faculty exchange/ Collaborative research

24th January, 2020, 1 year, Sanjay Gandhi Institute of Trauma and Orthopaedics, Bangalore, To Foster cooperation in education and medical research.

10th Feb, 2020 (Renewed MOU), 5 Year, Michigan State University, U. S. A, .Faculty exchange / Student exchange Program.

Faculty of Engineering and Graduate School of Science and Technology, Kumamoto University, Japan

27th April , 2020, 5 years, SreeChitra Tirunal Institute for Medical Sciences and Technology, Collaborate in Academic, Scientific and Technical research in specific areas of Common Interest in the broad area of Artificial Intelligence in medical image analysis , under a project Titled “Volumetric estimation of paraspinal muscle atrophy following minimally invasive tubular retractor assisted excision of extramedullary tumors of the Spinal Canal”.

9th March ,2020(Renewed MOU), 5 years, Kagoshima University, Japan Academic exchange program for students.

TEQIP – III

Project awarded to the institute has been successful in implementing diversified activities as laid under the three heads namely procurement, academic and operating cost. During the F.Y. 2019-20 funds utilized under various heads are Rs. 34.02 lacs for procurement, Rs. 121.11 lacs for academic activities, and 12.18 lacs for operating cost.

ANNUAL REPORT 2019-2020

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1. THE INSTITUTE

1.1 HISTORICAL BACKGROUND

National Institute of Technology Karnataka (NITK) Surathkal, formerly known as Karnataka Regional Engineering College (KREC) Surathkal, was established in the year 1960 at Srinivasnagar, Mangalore, Karnataka State. Sri U. Srinivasa Mallya, a visionary and a philanthropist was instrumental in the establishment of this Institute and hence the campus is named after him as "Srinivasnagar". KREC made a small yet significant beginning with 3 Departments offering BE programs in Civil, Mechanical and Electrical Engineering. Since then KREC grew from strength to strength and set unprecedented records in the field of technical education in the country. Initially the College was affiliated to the University of Mysore but in 1980 the affiliation was transferred to the Mangalore University.With every passing batch of students who went on to conquer unexplored domains in the service of humanity, the stature of KREC grew and the world recognized and applauded. So much so, 'Surathkal' is synonymous with high quality engineering education.In 2002, the Government of India decided to grant full autonomy and accordingly the College was elevated to the status of Deemed University and renamed as the National Institute of Technology Karnataka. Subsequently, the National Institute of Technology Act, 2007 was enacted by the Parliament of India to declare India's National Institutes of Technology as Institutes of National Importance. The Act received the assent of the President of India on 5thJune, 2007 and became effective from August 15, 2007. The Institute is governed by the rules and statutes of the NIT Act.

The Institute has establishe itself as a premier center engaged in imparting quality technological education and providing support to research and development activities. The Institute has a long tradition of research for several decades in both traditional and modern areas of engineering and sciences in all departments. The Institute has been actively involved in applied research while Identifying and resolving problems faced by the society in several areas. NITK attracts students from all over the country and abroad. NITK graduates are sought after by top industries/companies and the Institute has been rated as one of the best Institutions in the country with regard to student placements. Many of its alumni occupy coveted positions both in India and abroad and are a source of pride and inspiration to the Institute. NITK is consistently rated among the top engineering and technological institutes in India. Today, the Institute offers nine B. Tech programmes, 31 Post Graduate programmes and Doctoral programmes in all its fourteen Departments and is making significant advances in R&D and outreach activities too.

1.2 LOCATION

The Institute is located at Srinivasnagar, Surathkal in the Dakshina Kannada District of Karnataka State, 21 km. North of Mangalore city on either side of NH.66 which cuts across the campus. The campus is well connected by rail, road, air and sea with the rest of the country. The airport is situated at Bajpe, 20 km from Surathkal. The nearest Railway station is Surathkal (3 km.) which is on the Mangalore-Mumbai Konkan Railway route and the nearest sea port is New Mangalore which is 8 km, south of Institute premise.

1.3 CAMPUS

The campus covers an area of 295 acres in picturesque surroundings with Western Ghats in the East and the West Arabian Sea in the West. The campus is well laid out with roads, electrical installation, water supply, underground drainage etc. The campus being on the seashore, is blessed with clean air lush green and a healthy climate. The National Highway NH 66 separates the campus into Western Side and Eastern Side campus. The Western Side of the campus houses the Departments of Electrical and Electronics Engg., Electronics & Communication Engg., Computer Science and Engg. and Information Technology, Guest House, STEP, Yoga centre and pristine beach.

2 GOVERNANCE & ADMINISTRATION

2.1 ADMINISTRATION

NITK is governed by the Board of Governors which consists of representatives of the Government of India, Government of Karnataka, Alumni, Industry and other nominees. The Chairman of the Board is nominated by the Government of India. The Director is the administrative head of the Institute. The functioning of NITK is governed by NITSER Act 2007 and rules laid down by Government of India.

COUNCIL, BOG AND OTHER COMMITTEES

COUNCIL OF NITs

1 Hon'ble Minister, Ministry of Education (erstwhile MHRD), Government of India
2 Education Secretary, Ministry of Education (erstwhile MHRD), Government of India
3 The Chairperson of National Institute of Technology Karnataka, Surathkal
4 Director of National Institute of Technology Karnataka, Surathkal
5 Chairman, UGC
6 Chairman, All India Council for Technical Education
7 Director, General, Council for Scientific and Industrial Research
8 Secretary, Department of Bio-Technology, Government of India
9 Secretary, Department of Atomic Energy, Government of India
10 Secretary, Department of Information Technology, GOI
11 Secretary, Department of Space, Government of India
12 Not less than three but not more than five persons to be nominated Member by the Visitor, at lease one of whom shall be a women, having special knowledge or practical experience in respect of education, industry, science or technology
13 Three members of Parliament, of whom two shall be chosen by the Member House of the people and one by the Council of States
14 Two Secretaries to the State Government, from amongst the ministries Member or departments of that Government dealing with technical education Two Secretaries to the State Government, from amongst the ministries Member or departments of that Government dealing with technical education
15 Financial Adviser, Ministry Government of India
16 Joint Secretary (Technical)/Additional Secretary (Technical), Department of Higher Education, Ministry of HRD, GOI

BOARD OF GOVERNORS

Chairperson

Dr. K. Balaveera Reddy
Former Vice Chancellor - VTU-Belgaum
Veerabhadra Nilayam, H.No.10
4thA Cross, 2nd Block, HRBR Layout
Kalyana Nagar, Bangalore – 560043.

MEMBERS

Prof. K. Umamaheshwar Rao
Director
N.I.T.K, Surathkal

Shri Madan Mohan
Additional Director General (HE)
Dept. of Higher Education
Ministry of Education (erstwhile MHRD)
Govt. of India, Room No.431, C- Wing
Shastri Bhavan, New Delhi – 110 115.

Ms. Darshana M Dabral
Joint Secretary and Financial Advisor
Integrated Finance Bureau
Ministry of Education (erstwhile MHRD)
Govt. of India, 120-C
Shastri Bhavan, New Delhi - 110 001.

Prof. A K Suresh
Professor of Chemical Engineering and
Dy. Director (Academic & Infrastructure Affairs)
Indian Institute of Technology Bombay
Powai, Mumbai – 400 076.
[Nominee of the Director, IIT- Bombay]

Mr. G M Ravindra
Managing Director
RKS INFRATECH Pvt. Ltd.
No.42/36, "Rajani Towers", 3rd Floor
27th Cross, 7th 'B' Main Road
4th Block, Jayanagar, Bengaluru – 560011.

Dr. Shanth Averahally Thimmaiah
Managing Director
METAMORPHOSIS Group of Companies
"PRAKRUTI BHAVAN", #200, 1st & 2nd Floor
1st Cross, 40th Main, Behind Silk Board,
BTM Layout, II Stage, Bengaluru – 560068.

Muralidhar Kulkarni, Ph.D.
Professor
Dept. of Electronics & Communication Engg.
N.I.T.K., SURATHKAL.

Prasanna B D, Ph.D.
Associate Professor
Department of Chemical Engg.
N.I.T.K, SURATHKAL.

Secretary

Shri K Ravindranath
Registrar
NITK, Surathkal.

FINANCE COMMITTEE

Chairperson
Dr. K. Balaveera Reddy
Former Vice Chancellor - VTU-Belgaum
VeerabhadraNilayam, H.No.10
4thA Cross, 2nd Block, HRBR Layout
Kalyana Nagar, Bangalore – 560043.

MEMBERS

K. Umamaheshwar Rao, Ph.D.
Director
N.I.T.K, SURATHKAL.

Shri Madan Mohan
Additional Director General (HE)
Dept. of Higher Education
Ministry of Education (erstwhile MHRD), Govt. of India, Room No.431, C- Wing
Shastri Bhavan, New Delhi – 110 115.

Ms. Darshana M Dabral
Joint Secretary and Financial Advisor
Integrated Finance Bureau
Ministry of Education (erstwhile MHRD), Govt. of India, 120-C,
Shastri Bhavan
New Delhi - 110 001.

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Muralidhar Kulkarni, Ph.D.
Professor
Dept. of Electronics & Communication Engg.
N.I.T.K., SURATHKAL.

Member Secretary

Shri K Ravindranath
Registrar
NITK, Surathkal.

BUILDING AND WORKS COMMITTEE

Chairman
Prof.K Umamaheshwar Rao, Ph.D.
Director
NITK, Surathkal – 575 025

Members
Director – NITs, Ministry of Education (erstwhile MHRD), Govt. of India,
Dept of Higher Education, Room No. 223, C-wing, Shastri Bhavan, New Delhi – 110 001

Shri D K Singh
Deputy Secretary – Finance
Ministry of Education (erstwhile MHRD),
Dept. of Higher Education, No. 406-C,
Shasrti Bhavan, New Delhi -110 001

Subhas c Yaragal, Ph.D.
Dean (P&D), NITK, Surathkal
Mangalore – 575 025

Lakshman Nandagiri, Ph.D.
Professor
Dept. of Water Resources and Ocean Engineering
NITK, Surathkal
Mangaluru – 575 025

Shri. Suneet K Dadheech
Superintending Engineer, Project Director, CPWD, NITKS Project Circle Office, NITK Campus, Mangalore – 575 025

Shri Manjappa
Superintending Engineer, MESCOM, O&M Circle, Attavar,
Mangalore – 575 001

Member – Secretary
Ravindranath
Registrar
NITK, Surathkal,
Post Srinivasnagar,
Mangalore-575 025

OTHER COMMITTEES

SENATE

Chairman

K. Umamaheshwar Rao,Ph.D., Chairman

Ananthanarayana V. S., Ph.D., Member

K.V. Jayakumar, External Member

N. C. Shivaprakash, Ph.D.
External Member

Ms. Anjula Gurtoo, External Member

Members:-

A. Nityananda Shetty, Ph.D.

M. S. Bhat, Ph.D.

Subhash C Yaragal, Ph.D.

U Shripathi Acharya, Ph.D.

K Panduranga Vittal, Ph.D.

Jagannath Nayak, Ph.D.

Vidya Shetty K, Ph.D.

Ashvini Chaturvedi, Ph.D.

Mrs. Amba Shetty, Ph.D.

Lakshman Nandagiri, Ph.D.

Subba Rao, Ph.D.

Dwarakish G S, Ph.D.

Kiran G. Shirlal, Ph.D.

A. Mahesha, Ph.D.

Paresh Chandra Deka, Ph.D.

B M Dodamani, Ph.D.

Prasanna B D, Ph.D.

Gopal Mugeraya, Ph.D.

M.B. Saidutta, Ph.D.

Raj Mohan B, Ph.D.

Arun Mohan Isloor, Ph.D.

A. Chitharanjan Hegde, Ph.D.

Badekai Ramachandra Bhat, Ph.D.

Denthaje Krishna Bhat, Ph.D.

K. Swaminathan, Ph.D.

K. N. Lokesh, Ph.D.

R. Shivashankar, Ph.D.

M. C. Narasimhan, Ph.D.

Katta Venkataramana, Ph.D.

A.U. Ravi Shankar, Ph.D.

Varghese George, Ph.D.

S. Shrihari, Ph.D.

Sitaram Nayak, Ph.D.

K. S. Babu Narayan, Ph.D.

Mrs. B R Jayalekshmi, Ph.D.

Alwyn Roshan Pais, Ph.D.

K. Chandrasekaran, Ph.D.

Annappa, Ph.D.

P. Santhi Thilagam, Ph.D.

T. Laxminidhi, Ph.D.

Mrs. Sumam David S., Ph.D.

Muralidhar Kulkarni, Ph.D.

John D'Souza, Ph.D.

N S Vittal Shet,Ph.D.

Shubhanga K N,Ph.D.

Udayakumar R.Y.(on deputation to MNIT, Jaipur as Director), Ph.D.

Gururaj S Punekar, Ph.D.

B Venkatesa Perumal, Ph.D.

Biju R Mohan, Ph.D.

G. Ram Mohana Reddy, Ph.D.

Shyam S. Kamath, Ph.D.
A. Kandasamy, Ph.D.
Suresh M Hegde, Ph.D.
Santhosh George, Ph.D.
B. R. Shankar, Ph.D.
Murulidhar N. N., Ph.D.
Shrikantha S. Rao, Ph.D.
Ashok Babu T P, Ph.D.
G. C. Mohan Kumar, Ph.D.
Prasad Krishna, Ph.D.
Gangadharan K. V., Ph.D.
S. M. Kulkarni, Ph.D.
Vijay H. Desai, Ph.D.
Narendranath S., Ph.D.
Ravikiran Kadoli, Ph.D.
H. Suresh Hebbar, Ph.D.
S. M. Murigendrappa, Ph.D.
K. Narayan Prabhu, Ph.D.
Anandhan Srinivasan, Ph.D.
Udaya Bhat K., Ph.D.
Karra Ram Chandar, Ph.D.
V. R. Sastry, Ph.D. (on lien to Dr. BAT University, Lonere, Maharashtra as Vice
Ch. S. N. Murthy, Ph.D.
M. Govinda Raj, Ph.D.
Harsha Vardhan, Ph.D.
Ajith K M, Ph.D.
N. K. Udayashankar, Ph.D.
Mrs. H. D. Shashikala, Ph.D.
M. N. Satyanarayan, Ph.D.
S Pavan Kumar, Ph.D.
Aloysius Henry Sequeira, Ph.D.
K. B. Kiran, Ph.D.
Shashikantha Koudur, Ph.D.
Shri P. G. Mohanan, System Manager, CCC
Dr. Mallikarjuna Angadi, Librarian
Shri K. Ravindranath, Registrar

BOARD OF STUDIES (BOS - UG/PG/RESEARCH)

Constitution:

Dean (AA)	Chairman
Dean (Faculty Welfare)	Member
Dean (Planning & Development)	Member
Dean (Students' Welfare)	Member
Dean (Research & Consultancy)	Member
Dean (Alumni Affairs & Institutional Affairs)	Member
H.O.D. of each Department/his nominee	Members
BOG member representing the faculty	Member
Three Representatives from the premier Academic Institutions such as IIT, NIT, IISc., IIM, others belonging to Southern region	Member
Assistant Registrars (Academic)	Member
Registrar	Secretary

QUARTERS ALLOTMENT COMMITTEE

K Umamaheshwar Rao, Ph.D.	President
M S Bhat, Ph.D.	Chairman
Muralidhar Kulkarni, BOG Member	Member
Sri. K Ravindranath, Registrar	Member
Sri. Rammohan Y, Joint Registrar	Member
K Narayan Prabhu, Ph.D.	Member
P Santhi Thilagam, Ph.D.	Member
Monappa Mera, Supdt. A/cs- II	Member
Sreejith A, Ph.D. Grievance Redressal officer (PwD)	Member
Prashanth M H, Ph.D., Asst. Prof. Faculty I/c (Estate & Works)	Member/ Secretary
The President, NITK Non-Teaching Employees Association (R)	Member
The President, NITK, Employees Association (R)	Member

INSTITUTE GRIEVANCE REDRESSAL COMMITTEE

Narendranath S, Ph.D.	Chairman
S M Murigendrappa, Ph.D.	Member
Ravishankar K S, Ph.D.	Member
Nagendrappa H, Ph.D.	Member
Rashmi Uchil, Ph.D.	Member
Shreekanth R Lamani, Ph.D.	Member

Pathipati Srihari, Ph.D.	Member
Kedamath Senapati, Ph.D.	Member
Shri. P N Subraahmanya, Asst. (SG-II0, Est. & General Section	Member
Soumen Karmakar, Ph.D.	Convener

SECURITY COMMITTEE

Dean (Faculty Welfare)	
Dean (P&D)	
Dean (SW)	
Registrar	
Chairman, CCC	
Prof. i/c Hostels	
Resident Engineer	
Joint Registrar	
Faculty i/c Estate & Works	
Faculty i/c Ele. Works	
Faculty i/c Security	
Security Officer	

LIBRARY ADVISORY COMMITTEE

M.N. Satyanarayan, Ph.D.	Chairperson
Subrahmanya K., Ph.D.	Member
Gangamma S., Ph.D.	Member
Sib Sankar Mal, Ph.D.	Member
Arun Kumar Thalla, Ph.D.	Member
Manu Basavaraju, Ph.D.	Member
Nagendrappa H., Ph.D.	Member
P. Srihari, Ph.D.	Member
Anand Kumar M, Ph.D.	Member
V. Murugan, Ph.D.	Member
Anish S., Ph.D.	Member
Shashi Bhushan Arya, Ph.D.	Member
B. M. Kunar, Ph.D.	Member
Ajith K. M., Ph.D.	Member
Suprabha K. R., Ph.D.	Member
Iranna Shettar	Member
Mrs. Anasuya C.	Member
Mallikarjun Angadi, Ph.D.	Convener

SPORTS ADVISIORY COMMITTEE

Director	President
Dean (S. W.)	Chairman
Dean (F.W.)	Member
Registrar	Member
Joint Registrar	Member
Resident Engineer	Member
Professor-in-charge of Hostel Affairs	Member
A Nityananda Shetty, Ph.D. Dept. of Chemistry	Member
Prasanna B D, Ph.D., Dept. of Chemical Engg.	Member
B M Dodamani, Ph.D. Dept. of Applied Mechanics & Hydraulics	Member
Mohammad Rizwanur Rahman, Ph.D., Dept. of Metallurgical & Materials Engg,	Member
P Sam Johnson, Ph.D. Dept. of MACS	Member
Kalpana G Bhat, Ph.D Dept. of E&C Engg.	Member
Ramesh M R, Ph.D., Dept. of Mechnanical Engg.	Member
Raviraj H Mulangi, Ph.D, Dept. of Civil Engg.	Member
Alwyn Roshan Pais, Ph.D. Dept. of Computer Science and Engg.	Member
Hem Prasad Nath , Ph.D. SAS Officer	Member
Manoj, Ph.D., SAS Officer	Member
Iranna M Shettar, Asst. Librarian	Member
Students Council President	Member
Vice President	Member
Sports Secretary	Member
R C Convenor	
All Captains	Member
Physical Director i/c	Member/ Secretary

INTERNAL COMPLAINTS COMMITTEE

Vidya Shetty, Ph.D.	Chairperson, ICC-SH
Harsha Vardhan, Ph.D.	Member, ICC-SH
Geetha V, Ph.D.	Member, ICC-SH
Suprabha K R, Ph.D.	Member, ICC-SH
P Shekhar, Supdt. SG-II	Member, ICC-SH
Octavia Zeena Dsouza, Stenographer (S.G-II)	Member, ICC-SH
Rameela Shekar, Psycholoogical Counselor	NGO Member, ICC, SH

HEALTH CARE COMMITTEE

Dean (Faculty Welfare)	Chairman
Warden, Girls Hostel	Member
Professor in-charge (Hostel Affairs)	Member
Liaison Officer, SC/ST Cell	Member
G Ram mohan Reddy, Ph.D.	Member
Pavan Kumar, Ph.D.	Member

Sri. Rukmayya Shetty	Member
C P Devatha, Ph.D.	Member
Ms. Gayathri Rao K	Member
Joint Registrar	Member
Supdt. Accounts III	Member
President Student's Council	Member
Girls Representatives	Member
Dr. M L Balabhaskara, Medical Officer	Member
Dr. (Mrs.) Shrimathi B, Medical Officer	Secretary

3. DEPARTMENTS AND SCHOOLS

Applied Mechanics & Hydraulics	(AM)
Chemical Engineering	(CH)
Chemistry	(CY)
Civil Engineering	(CV)
Computer Science & Engineering	(CO)
Electrical & Electronics Engineering	(E&E)
Electronics & Communication Engineering	(E&C)
Information Technology	(IT)
Mathematical & Computational Sciences	(MA)
Mechanical Engieering	(ME)
Metallurgical & Materials Engineering	(MT)
Mining Engineering	(MN)
Physics	(PH)
SCHOOLS	(SM)
School of Management	

4. ACADEMIC PROGRAMMES

4.1 PROGRAMMES OFFERED

I. B.TECH. (Undergraduate Programme) – Eight semesters

1 Chemical Engineering
2 Civil Engineering
3 Computer Science & Engineering
4 Electrical and Electronics Engineering
5 Electronics & Communication Engineering
6 Mechanical Engineering
7 Metallurgical & Materials Engineering
8 Mining Engineering
9 Information Technology

II .M.Tech. (Post Graduate Programme) – Four Semesters

1 Structural Engg.
2 Geotechnical Engg.
3 Environmental Engg.
4 Transportation Engg.
5 Construction Technology and Management
6 Marine Structures
7 Water Resources Engineering and Management
8 Remote Sensing and Geographic Information Systems
9 Manufacturing Engg
10 Mechatronics Engg
11 Thermal Engg
12 Mechanical Design
13 Power & Energy Systems
14 VLSI Design
15 Communication Engineering and Networks
16 Signal processing and Machine Design
17 Environmental Science and Technology
18 Chemical Engineering
19 Industrial Biotechnology
20 Materials Engg
21 Process Metallurgy
22 Nanotechnology
23 Computer Science & Engg
24 Computer Science & Engg-Information Security
25 Computational and Data Science
26 Information Technology

III M.Tech. by Research : In all the above M.Tech Programme and in the Department of Mining - M.Tech Research Programme in Rock Excavation Technolgy and Management

IV. M.C.A. (Master of Computer Applications) - Six semesters

V.M.B.A. (Master of Business Administration) - Four semesters

VI.M.Sc. in Chemistry – (Four semesters)

VII. M.Sc. in Physics – (Four semesters)

VIII. Ph. D. Programme:-

Ph.D. Programmes are offered in 14 Departments in various streams and interdisciplinary specializations.

4.2 ACADEMIC CALENDAR

Academic Year	Programmes	Admission Commenced on	Admission closed on
2019-20	B.Tech.	19.07.2019	23.07.2019
2019-20	M.Tech.	24.06.2019	27.06.2019
2019-20	M.Tech. by Research/ Spon.	08.07.2019	12.07.2019
2019-20	MCA	15.07.2019	31.07.2019
2019-20	M.B.A.	08.04.2019	15.04.2019
2019-20	M.Sc. (Physics & Chemistry	16.07.2019	31.07.2019
2019-20	Ph.D (July Session)	08.07.2019	12.07.2019
2019-20	Ph.D (December Session)	19.12.2019	27.12.2019

5. ADMISSION POLICIES

5.1 ADMISSION PROCEDURE

B. Tech.:-

The Government of India, Department of Ministry of Education (erstwhile MHRD) issued a uniform admission procedure for all the NITs in the country. Candidates seeking admission to NIT are required to appear for the JEE (Main) conducted by CBSE New Delhi. Seats are filled up as per the merit list prepared on the basis of JEE (Main) Examination and qualifying examination scores. According to All India rank prepared on the basis of the performance in JEE (Main), seats will be allotted in the centralized on-line campus counseling through Central Seat Allocation Board (CSAB). The seat allocation done on the basis of 50% Home State Quota (HS) and 50% Other State Quota (OS). These seats are filled on All India ranking Merit Basis (JEE Main). Seats are reserved for candidates belonging to Scheduled Caste, Scheduled Tribes, and Persons with Disabilities (PWD) Other Backward Classes and Economic weaker Section (EWS) as per the guidelines issued by the Ministry of Education (erstwhile MHRD). Female supernumerary seats are also created by CSAB to accommodate 20% seats for female candidates. In addition to this, 15% over and above the intake is available under the Direct Admission of Students Abroad (DASA) Scheme, and a few seats are reserved for the candidates nominated by the Ministry of External Affairs.

M.Tech -GATE/Scholarship seats:-

On the basis of GATE Score, admissions for scholarship category (GATE) were made in the centralized on-line common Admission Process through Centralized Counseling for M.Tech. (CCMT) coordinated by NIT, Rourkela.
After the admission through CCMT, the vacant and unfilled seats were filled through Spot admission on 9.8.2019 at NITK, Surathkal for the GATE qualified candidates and for some of the programmes the admission were made on the basis of academic performance in qualifying examination and written aptitude test or / and interview etc as decided by the DPGC of the concerned department offering that programme.

M.Tech.(Sponsored Seats/Research):-

Selection of candidates for admission were made on the basis of GATE score or in some of the programmes, selection was based on GATE score and on academic performance in qualifying examination and written aptitude test or/ and interview etc as decided by the DPGC of the concerned Department offering that programme.

M.C.A.:-

Selection of candidates for admissions was done through a common entrance test NIMCET and on academic performance in qualifying examination. Admissions were made through a centralized counseling. (NIMCET)

M.B.A:-

Selection was based on CAT/GMAT/CMAT score and performance in the qualifying examination and written aptitude test or/ and interview etc as decided by the DPGC of the School of Management.

M.Sc (Chemistry & Physics):-

Selection of candidates for admissions was made on the basis of JAM Score and performance in the qualifying exam. Admissions were made through a centralized counseling. (CCMN)

Ph.D. Programme:-

Selection of candidates for admission to Ph.D. Programme was based upon the academic performance in the qualifying examinations, written aptitude test and interviews conducted by the respective departments.

All the students are required to stay in the Institute Hostels, unless permitted

to reside outside under special circumstances. Students have to strictly adhere to the rules and regulations of the institute.

All the students are required to stay in the Institute Hostels, unless permitted to reside outside under special circumstances. Students have to strictly adhere to the rules and regulations of the institute.

6. ADMISSIONS FOR 2019-20

6.1 The number of candidates admitted are as follows:

I. B.Tech.

1	Admission through JEE (Main) Rank	861
2	G.O.I. Nominee- through Ministry of External Affairs (Education & Welfare)	05
3	DASA Scheme	91
	Total	**957**

II. M.Tech./M.Tech. (By Research)

i) M.Tech Programme

The number of candidates admitted to First Year M.Tech. Programmes are:

1	With GATE qualifications for scholarship seats	561
	Non GATE candidates	16
2	Sponsored candidates	01
3	Admission under DASA Scheme	01
4	QIP candidates	02
5	L&T Sponsored Candidates	30
6	NAVY sponsored	01
7	ICCR Sponsored	06
	Total	**618**

II. M.Tech. (By Research)

1	GATE qualified with Scholarship	24
2	Non Scholarship	03
	Total	**27**

IV MCA.:

Selection of candidates for admission to MCA, were made on the basis of rank obtained in NIT MCA Common Entrance Test (NIMCET). Admissions were made through a Centralized counseling conducted by N.I.T. Surathkal. A Total 50 candidates admitted were as follows:-

OP	23
OBC	12
EWS	02
SC	08
ST	03
PWD	02
Total	**50**

IV M.B.A.:

Selection of candidates were made on the basis of CAT/GMAT/CMAT among candidates applied to NITK, Surathkal, Group Discussion and interview. A total 28 candidates were admitted as follows:-

OP	19
OBC	5
EWS	0
SC	3
ST	1
Total	**28**

V. M.Sc (Chemistry & Physics)

Selection were made on the basis of score obtained JAM 2019. Admissions were made through CCMN conducted by NIT Rourkela. Following are the admission details:

i. M.Sc (Chemistry)

OP	13
OBC	08
EWS	02
SC	01
ST	0
PWD	0
Total	**24**

ii M.Sc (Physics)

OP	11
OBC	06
EWS	02
SC	04
ST	01
Total	**24**

VI. Ph.D. Programme:

Fellowship Holders	
OP	66
OBC	25
EWS	04
SC	12
ST	03
Total	**110**

External Registrants (Part Time)	41
Sponsored	7
Non Sponsored	8
QIP	10
ICCR	5
Ethiopian	1
Other Quota (CSIR – INSPIRE)	4
Total	**76**

A total number of 957 candidates have been admitted to the First Year B.Tech. Programmes according to the guidelines, instructions issued by the Ministry of Education (erstwhile MHRD). The PG & Ph.D. admissions have been made according to the Rules and Regulations issued by the Senate of the Institute.

6.2 B.Tech. Students Strength for the year 2019-20

B.Tech I Year	SC			ST			OBC			DASA			ICCR			EWS			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Civil Engg	14	2	16	8	2	10	22	3	25	4	2	6	0	0	0	6	2	8	37	8	45	91	19	110
Mechanical Engg.	22	3	25	12	2	14	39	8	47	21	0	21	1	0	1	7	1	8	63	14	77	165	28	193
Electrical & Electronics Engg.	15	2	17	7	2	9	24	4	28	8	4	12	2	0	2	4	1	5	38	8	46	98	21	119
Electronics &Communication Engg.	14	2	16	6	1	7	23	5	28	12	5	17	0	0	0	4	3	7	37	7	44	96	23	119
Chemical Engg.	5	2	7	3	1	4	12	3	15	4	2	6	1	1	2	1	2	3	17	5	22	43	16	59
Metallurgical & Materials Engg.	7	2	9	4	0	4	12	2	14	0	0	0	0	0	0	3	0	3	20	4	24	46	8	54
Mining Engg.	6	1	7	3	1	4	12	2	14	0	0	0	0	0	0	3	0	3	18	5	23	42	9	51
Computer Science & Engg.	16	2	18	5	2	7	24	6	30	11	5	16	0	0	0	4	2	6	41	8	49	101	25	126
Information Technology	14	2	16	6	0	6	25	4	29	8	4	12	0	0	0	5	2	7	37	9	46	95	21	116
Total	**113**	**18**	**131**	**54**	**11**	**65**	**193**	**37**	**230**	**68**	**22**	**90**	**4**	**1**	**5**	**37**	**13**	**50**	**308**	**68**	**376**	**777**	**170**	**947**

B.Tech II Year	SC			ST			OBC			DASA			SII			ICCR			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Civil Engg	12	2	14	6	1	7	21	2	23	11	3	14	1	0	1	1	0	1	37	9	46	89	17	106
Mechanical Engg.	19	3	22	10	2	12	37	6	43	18	4	22	1	0	1	0	0	0	64	10	74	149	25	174
Electrical & Electronics Engg.	12	3	15	6	1	7	23	4	27	8	4	12	0	0	0	1	0	1	40	7	47	90	19	109
Electronics &Communication Engg.	11	3	14	5	1	6	21	5	26	12	4	16	0	0	0	0	0	0	40	7	47	89	20	109
Chemical Engg.	5	1	6	3	1	4	11	2	13	4	3	7	0	0	0	1	0	1	16	5	21	40	12	52
Metallurgical & Materials Engg.	6	1	7	3	0	3	8	4	12	0	0	0	0	0	0	0	0	0	19	3	22	36	8	44
Mining Engg.	5	1	6	2	2	4	7	2	9	0	0	0	0	0	0	0	0	0	15	2	17	29	7	36
Computer Science & Engg.	13	2	15	5	2	7	23	4	27	12	2	14	3	0	4	1	0	1	44	6	50	101	16	117
Information Technology	12	1	13	6	0	6	22	5	27	8	3	11	0	0	0	0	0	0	35	11	46	83	20	103
Total	**95**	**17**	**112**	**46**	**10**	**56**	**173**	**34**	**207**	**73**	**23**	**96**	**5**	**0**	**6**	**4**	**0**	**4**	**310**	**60**	**370**	**706**	**144**	**850**

B.Tech III Year	SC			ST			OBC			DASA			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Civil Engg	11	3	14	5	1	6	21	1	22	6	5	11	35	6	41	78	16	94
Mechanical Engg.	19	0	19	10	1	11	34	1	35	21	3	24	66	3	69	150	8	158
Electrical & Electronics Engg.	14	0	14	5	1	6	24	2	26	7	3	10	38	9	47	88	15	103
Electronics &Communication Engg.	11	2	13	6	0	6	23	2	25	13	4	17	37	8	45	90	16	106

B.Tech III Year	SC			ST			OBC			DASA			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Chemical Engg.	4	2	6	2	1	3	10	2	12	6	2	8	16	5	21	38	12	50
Metallurgical & Materials Engg.	7	0	7	2	0	2	12	0	12	0	0	0	16	3	19	37	3	40
Mining Engg.	4	0	4	3	0	3	10	2	12	0	0	0	19	1	20	36	3	39
Computer Engg.	12	1	13	7	0	7	23	3	26	12	5	17	44	2	46	98	11	109
Information Technology	12	1	13	4	2	6	22	5	27	10	2	12	39	5	44	87	15	102
Total	**94**	**9**	**103**	**44**	**6**	**50**	**179**	**18**	**197**	**75**	**24**	**99**	**310**	**42**	**352**	**702**	**99**	**801**

B.Tech IV Year	SC			ST			OBC			DASA			MEA			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Civil Engg	10	3	13	7	0	7	18	2	20	11	3	14	1	0	1	22	11	33	69	19	88
Mechanical Engg.	18	0	18	10	0	10	34	2	36	20	0	20	2	0	2	51	4	55	135	6	141
Electrical & Electronics Engg.	10	4	14	3	0	3	15	10	25	11	3	14	4	0	4	30	17	47	73	34	107
Electronics &Communication Engg.	11	3	14	7	0	7	24	1	25	14	4	18	0	1	1	35	12	47	91	21	112
Chemical Engg.	5	1	6	3	1	4	9	1	10	7	2	9	0	0	0	7	8	15	31	13	44
Metallurgical & Materials Engg.	5	1	6	1	3	4	8	2	10	0	0	0	0	0	0	10	7	17	24	13	37
Mining Engg.	6	0	6	3	1	4	7	0	7	0	0	0	0	0	0	13	1	14	29	2	31

Computer Engg.	11	3	14	6	1	7	17	6	23	12	3	15	0	2	2	33	12	45	79	27	106
Information Technology	10	3	13	1	3	4	18	8	26	9	3	12	0	0	0	39	7	46	77	24	101
Total	**86**	**18**	**104**	**41**	**9**	**50**	**150**	**32**	**182**	**84**	**18**	**102**	**7**	**3**	**10**	**240**	**79**	**319**	**608**	**159**	**767**

M.Tech. Students Strength for the year 2019-20

M.Tech (I Year)	SC			ST			OBC			QIP			EWS			DASA			ICCR			Sponsored /L&T			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	T	M	F	T	M	F	T	M	F	To	M	F	To	M	F	To
Structural Engg.	4	0	4	2	0	2	5	1	6	1	0	1	2	1	3	0	0	0	1	0	1	0	0	0	8	4	12	23	6	29
Geotechnical Engg.	1	1	2	1	0	1	1	3	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	4	2	6	8	6	14
Environmental Engg.	1	3	4	1	0	1	1	7	8	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	2	10	12	7	21	28
Transportation Systems Engg.	4	0	4	1	0	1	4	3	7	0	0	0	3	0	3	0	0	0	1	0	1	0	0	0	11	2	13	24	5	29
Construction Technology & Mgt.	4	0	4	0	0	0	6	2	8	0	0	0	2	0	2	0	0	0	1	0	1	26	4	30	9	3	12	48	9	57
Marine Structures	4	0	4	1	0	1	3	5	8	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	5	8	13	16	13	29
Water Resources Engg. & Management	2	0	2	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	9	3	12
Remote Sensing & GIS	1	1	2	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	15	11	12	23
Thermal Engg.	2	0	2	1	0	1	5	0	5	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	5	1	6	15	1	16
Mechatronics Engg.	4	0	4	0	0	0	6	1	7	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	12	2	14	23	3	26
Manufacturing Engg.	2	0	2	1	0	1	3	0	3	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	7	0	7	16	0	16
Mechanical Design	2	0	2	1	0	1	3	1	4	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	6	1	7	14	2	16
Power & Energy Systems	3	1	4	1	0	1	8	2	10	0	0	0	1	1	2	0	0	0	2	0	2	0	0	0	8	3	11	23	7	30
VLSI Design	1	3	4	2	0	2	7	1	8	0	0	0	2	0	2	0	1	1	0	0	0	0	0	0	11	2	13	23	7	30
Signal Processing & Machine Learning	1	2	3	2	0	2	5	3	8	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	10	2	12	19	8	27

M.Tech (I Year)	SC			ST			OBC			QIP			EWS			DASA			ICCR			Sponsored /L&T			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	T	M	F	T	M	F	T	M	F	To	M	F	To	M	F	To
Communication Engg.& Networks	2	2	4	1	0	1	6	4	10	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	9	2	11	19	9	28
Chemical Engg:-	1	0	1	0	0	0	3	1	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	4	2	6	9	3	12
Environmental Science & Technology	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	9	4	6	10
Industrial Biotechnology	1	3	4	0	1	1	1	5	6	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3	13	16	6	22	28
Process Metallurgy	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	11	0	11
Materials Engg.	1	1	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	21	21	3	24
Nanotechnology	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	4	1	5
Computer Science & Engg	1	1	2	1	1	2	5	1	6	0	0	0	1	1	2	0	0	0	0	1	1	0	0	0	11	1	12	19	6	25
Computer Science & Engg. - Information Security	1	4	5	1	0	1	8	1	9	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	13	0	13	26	5	31
Computational & Data Science	0	2	2	0	1	1	4	3	7	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	12	1	13	17	7	24
Information Technology	3	0	3	1	0	1	7	3	10	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	8	3	11	20	7	27
TOTAL	**46**	**25**	**71**	**19**	**3**	**22**	**102**	**51**	**153**	**2**	**0**	**2**	**31**	**7**	**38**	**0**	**1**	**1**	**5**	**1**	**6**	**28**	**4**	**32**	**202**	**80**	**282**	**435**	**172**	**607**

M.Tech (II Year)	SC			ST			OBC			QIP			DASA			ICCR			Sponsored			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	T	M	F	T	M	F	To	M	F	To	M	F	To
Structural Engg.	4	0	4	1	1	2	3	3	6	0	0	0	0	0	0	2	0	2	1	0	1	8	3	11	19	7	26
Geotechnical Engg.	0	2	2	1	0	1	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	7	7	14
Environmental Engg.	3	1	4	1	0	1	1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	2	9	11	7	15	22
Transportation Engg.	1	1	2	1	0	1	5	2	7	0	0	0	0	0	0	0	0	0	0	0	0	7	5	12	14	8	22
Construction Technology & Mgt.	1	3	4	1	0	1	3	3	6	0	0	0	0	0	0	1	0	1	27	2	29	9	3	12	42	11	53
Marine Structures	3	0	3	1	0	1	5	2	7	0	0	0	0	0	0	0	0	0	1	0	1	9	3	12	19	5	24

M.Tech (II Year)	SC			ST			OBC			QIP			DASA			ICCR			Sponsored			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	T	M	F	T	M	F	To	M	F	To	M	F	To
Water Resources Engg. & Management	1	0	1	1	0	1	2	5	7	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	6	6	12
Remote Sensing & GIS	2	0	2	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	0	5	6	11	11	9	20
Thermal Engg.	2	0	2	1	0	1	4	0	4	0	0	0	0	0	0	1	1	2	1	0	1	7	0	7	16	1	17
Mechatronics Engg.	4	0	4	1	0	1	5	1	6	0	0	0	0	0	0	0	0	0	0	0	0	7	3	10	17	4	21
Manufacturing Engg.	0	1	1	1	0	1	3	0	3	0	0	0	0	0	0	1	0	1	0	0	0	7	1	8	12	2	14
Design and Precision Engg.	2	0	2	1	0	1	5	0	5	2	0	2	0	0	0	0	0	0	0	0	0	6	0	6	16	0	16
Power & Energy Systems	2	2	4	1	1	2	7	0	7	0	0	0	0	0	0	0	0	0	1	0	1	9	3	12	20	6	26
VLSI Design	3	1	4	1	0	1	6	1	7	2	1	3	0	0	0	0	0	0	0	0	0	10	3	13	22	6	28
Communication Engg.	1	0	1	1	0	1	5	1	6	0	0	0	0	0	0	0	0	0	0	0	0	6	5	11	13	6	19
Chemical Plant Design	1	0	1	1	0	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	8	1	9
Industrial Pollution Control	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	9	5	5	10
Industrial Biotechnology	1	0	1	0	1	1	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	2	9	11	6	13	19
Process Metallurgy	1	0	1	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6	1	7	9	1	10
Materials Engg.	2	0	2	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	16	0	16
Nanotechnology	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	6	0	6
Computer Science & Engg	4	0	4	1	0	1	5	1	6	0	0	0	1	0	1	1	0	1	0	0	0	13	3	16	25	4	29
Computer Science & Engg. - Information Security	4	0	4	2	0	2	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	11	1	12	23	2	25
Computational Mathamatics	1	0	1	0	1	1	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	11	1	12	19	2	21
Information Technology	5	0	5	1	0	1	2	4	6	0	0	0	0	0	0	0	0	0	0	0	0	8	3	11	16	7	23
TOTAL	**49**	**11**	**60**	**19**	**4**	**23**	**94**	**36**	**130**	**4**	**1**	**5**	**1**	**0**	**1**	**6**	**1**	**7**	**31**	**2**	**33**	**170**	**73**	**243**	**374**	**128**	**502**

M.Tech Research	SC			ST			OBC			GENERAL			TOTAL		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Marine Structure	0	0	0	0	0	0	0	1	1	1	1	2	1	2	3
Remote Sensing & GIS	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Water Resources Engg. & Management	0	0	0	0	0	0	1	0	1	1	1	2	2	1	3
Structural Engg.	0	0	0	0	0	0	0	1	1	3	1	4	3	2	5
Geotechnical Engg.	1	0	1	0	0	0	0	0	0	1	0	1	2	0	2
Environmental Engg.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Thermal Engg.	0	0	0	0	0	0	3	1	4	5	0	5	8	1	9
Mechatronics Engg.	1	0	1	0	0	0	2	0	2	2	0	2	5	0	5
Manufacturing Engg.	0	0	0	0	0	0	1	0	1	3	0	3	4	0	4
Mechanical Design	0	0	0	0	0	0	1	0	1	1	0	1	2	0	2
Mechatronics and Automation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design and Precision Engg.	0	0	0	0	0	0	0	0	0	4	1	5	4	1	5
Power & Energy Systems	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2
VLSI Design	0	1	1	0	0	0	2	0	2	2	1	3	4	2	6
Communication Engg	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Communication Engg. and Network	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2
Materials Engg.	0	0	0	0	0	0	2	0	2	1	0	1	3	0	3
Nanotechnology	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
Industrial Pollution Control	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Chemical Plant Design	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Industrial Biotechnology	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Computer Science & Engg	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2
Computer Science & Engg. - Information Security	0	0	0	0	0	0	0	0	0	1	3	4	1	3	4
Rock Excavation Technology & Mgt	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Information Technology	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2
TOTAL	**2**	**1**	**3**	**0**	**0**	**0**	**12**	**3**	**15**	**37**	**15**	**52**	**49**	**19**	**68**

MCA Students Strength for the year 2019-20															
Year	**SC**			**ST**			**OBC**			**GENERAL**			**TOTAL**		
	M	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**
I Year	7	1	8	3	0	3	8	5	13	19	7	26	37	13	50
II Year	11	2	13	6	1	7	21	5	26	32	13	45	70	21	91
III Year	11	3	14	6	1	7	15	5	20	31	14	45	63	23	86
Total	**29**	**6**	**35**	**15**	**2**	**17**	**44**	**15**	**59**	**82**	**34**	**116**	**170**	**57**	**227**

MBA Students Strength for the year 2019-20															
Year	**SC**			**ST**			**OBC**			**GENERAL**			**TOTAL**		
	M	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**
I Year	0	2	2	1	0	1	0	2	2	15	8	23	16	12	28
II Year	0	0	0	0	0	0	4	2	6	9	8	17	13	10	23
Total	**0**	**2**	**2**	**1**	**0**	**1**	**4**	**4**	**8**	**24**	**16**	**40**	**29**	**22**	**51**

M.Sc (Chemistry) Students Strength for the year 2019-20																		
	SC			**ST**			**OBC**			**EWS**			**GENERAL**			**TOTAL**		
I Year	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**
I Year	1	0	1	0	0	0	3	5	8	0	2	2	6	7	13	10	14	24
II Year	0	3	3	1	1	2	4	3	7	0	0	0	4	9	13	9	16	25
Total	**1**	**3**	**4**	**1**	**1**	**2**	**7**	**8**	**15**	**0**	**2**	**2**	**10**	**16**	**26**	**19**	**30**	**49**

M.Sc (Physics) Students Strength for the year 2019-20																		
	SC			**ST**			**OBC**			**EWS**			**GENERAL**			**TOTAL**		
IYEAR	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**	**M**	**F**	**To**
I Year	3	1	4	1	0	1	3	3	6	1	1	2	9	2	11	17	7	24
II Year	0	3	3	1	1	2	6	3	9	0	0	0	6	3	9	13	10	23
Total	**3**	**4**	**7**	**2**	**1**	**3**	**9**	**6**	**15**	**1**	**1**	**2**	**15**	**5**	**20**	**30**	**17**	**47**

Ph.D. Students Strength for the year 2019-20

Branch	SC			ST			OBC			EWS			QIP			ICCR			Ethiopian			VTU Scheme			Sponsored			GENERAL			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Civil	6	3	9	2	1	3	8	12	20	0	0	0	2	2	4	1	0	1	2	0	2	0	0	0	1	1	2	38	24	62	60	43	103
App. Mechanics	6	1	7	2	1	3	11	3	14	0	1	1	1	1	2	3	0	3	2	0	2	0	0	0	2	3	5	27	16	43	54	26	80
Mechanical	20	0	20	10	0	10	31	0	31	0	0	0	10	0	10	0	0	0	3	0	3	0	0	0	2	0	2	80	5	85	156	5	161
E&E	6	1	7	2	0	2	13	5	18	2	0	2	3	2	5	0	0	0	0	0	0	0	0	0	0	0	0	33	6	39	59	14	73
E&C	2	0	2	2	0	2	7	0	7	0	0	0	3	3	6	0	0	0	0	0	0	4	1	5	2	1	3	33	9	42	53	14	67
Chemical	1	1	2	1	2	3	3	7	10	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8	16	24	14	26	40
Metallurgy	4	0	4	2	0	2	10	2	12	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	21	2	23	40	4	44
Mining	4	0	4	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	1	17	27	1	28
Computer	4	3	7	1	0	1	6	1	7	0	0	0	4	0	4	0	0	0	0	0	0	7	1	8	0	1	1	17	10	27	39	16	55
Information Technology	2	1	3	1	0	1	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	1	1	2	9	5	14	19	11	30
Physics	2	1	3	2	0	2	8	1	9	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	15	15	30	28	17	45
Chemistry	3	2	5	0	0	0	4	9	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	12	26	21	23	44
MACS	1	1	2	1	0	1	3	5	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	15	13	28	22	19	41
School of Mgt.	4	4	8	1	0	1	7	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	9	17	26	24	24	48
Total	**65**	**18**	**83**	**27**	**4**	**31**	**122**	**50**	**172**	**3**	**1**	**4**	**25**	**8**	**33**	**4**	**0**	**4**	**8**	**0**	**8**	**14**	**4**	**18**	**13**	**7**	**20**	**335**	**151**	**486**	616	243	**859**

6.3 ADMISSION STATISTICS Undergraduate Programmes – B. Tech.

Particulars of sanctioned intake and admissions made during 2019-20

Sl. No.	Courses offered	Sanctioned intake				Admissions made to Undergraduate Programmes									
						Normal Intake							ICCR	DASA	Total Admission
		Normal Intake	ICCR + MEA	DASA	Total	OC	EWS	OBC	SC	ST	PWD	Total			
1	Civil Engineering	106	3	16	125	45	8	23	16	10	1 OC, 2 OBC= 3	105	0	6	111
2	Mechanical Engineering	172	3	24	199	74	7	45	24	15	4 OC, 1 EWS, 1 OBC, 1SC, = 7	172	1	22	195
3	Electrical & Electronics Engineering	107	4	14	125	44	5	27	16	8	3 OC, 1 OBC, 1 SC, 1 ST = 6	106	2	12	120
4	Electronics & Communication Engineering	104	3	17	124	44	7	26	16	7	1 OC, 2 OBC =3	103	0	17	120
5	Chemical Engineering	54	2	9	65	24	4	14	7	4	1 OBC	54	2	6	62
6	Metallurgical & Materials Engineering	54	0	2	56	24	3	15	8	4	0	54	0	0	54
7	Mining Engineering	53	0	1	54	22	3	15	7	4	0	51	0	0	51
8	Computer Engineering	112	2	16	130	46	6	30	17	6	4 OC, 1 OBC, 1SC, 1 ST = 7	112	0	16	128
9	Information Technology	104	0	12	116	44	7	27	15	6	2OC, 2 OBC, 1SC= 5	104	0	12	116
Total		**866**	**17**	**111**	**994**	**367**	**50**	**222**	**126**	**64**	**32**	**861**	**5**	**91**	**957**

ADMISSION STATISTICS – B.TECH. 2019-20

Details of Male & Female admissions – course wise and category wise

Sl. No.	Programme	OC		EWS		OBC		SC		ST		ICCR		DASA		Total Admission		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
1	Civil Engg	37+1PH	8	6	2	21+1PH	2+1PH	14	2	8	2	0	0	4	2	92	19	111
2	Mechanical Engg	61 +3PH	13+ 1PH	6+ 1PH	1	37 + 1PH	8	21+1PH	3	13	2	1	0	22	0	167	28	195
3	Electrical & Electronics Engg	36+3PH	8	4	1	23+1PH	4	14+1PH	2	7	1+ 1PH	2	0	8	4	99	21	120
4	Electronics & Communications	38	6+ 1PH	4	3	22+1PH	4+1PH	14	2	6	1	0	0	12	5	97	23	120
5	Chemical Engg	19	5	2	2	12	2+1PH	5	2	3	1	1	1	4	2	46	16	62
6	Metallurgical & Materials Engg	20	4	3	0	13	2	7	1	4	0	0	0	0	0	47	7	54
7	Mining Engg	18	4	3	0	13	2	6	1	3	1	0	0	0	0	43	8	51
8	Computer Engg	38+4PH	8	4	2	24+1PH	6	15+1PH	2	4+ 1PH	2	0	0	11	5	103	25	128
9	Information Technology	35+2PH	9	5	2	23+2PH	4	13+1PH	2	6	0	0	0	8	4	95	21	116
	Total	**302+ 13PH**	**65+ 2PH**	**37+ 1PH**	**13**	**188+7PH**	**34+ 3PH**	**109+ 4PH**	**17**	**54+ 1PH**	**10+ 1PH**	**4**	**1**	**69**	**22**	**789**	**168**	**957**

PH= Persons with Disabilities

M. Tech. Programme - Particulars of Intake and Admissions during 2019-20

Sl. No.	Name of the Programmes	Intake	Admitted					Out of the total admissions-No. of candidates admitted under category																	
			GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC			PWD		
					M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO
1	Structural Engg.	30+1*	29	1 QIP Poly 1 ICCR	25	6	31	4	0	4	2	0	2	5	1	6	2	1	3	10+ 1QIP Poly+ 1ICCR	4	16	0	0	0
2	Geotechnical Engg.	16+1*+ 1**	14	--	8	6	14	1	1	2	1	0	1	1	3	4	1	0	1	4	2	6	0	0	0
3	Environmental Engg.	30+1*	28	--	7	21	28	1	3	4	1	0	1	1	6	7	2	1	3	2	11	13	0	0	0
4	Transportation Engg.	30+1*	29	1 ICCR	25	5	30	4	0	4	1	0	1	5	3	8	3	0	3	10+ 1 ICCR	2	13	1 (OC)	0	1
5	Construction Technology & Management	30+1* 30 (L&T)	27	30 L&T 1 ICCR	49	9	58	4	0	4	0	0	0	6	2	8	2	0	2	10+ 1ICCR+ 26 L&T	3+4 L&T	44	0	0	0
6	Marine Structures	30+1*+ 1**	28	1 Spon.	16	13	29	4	0	4	1	0	1	3	5	8	2	0	2	5+ 1Spon.	8	14	0	0	0
7	Water Resources Engineering & Management	16+1*	12	--	9	3	12	2	0	2	0	0	0	5	0	5	0	0	0	2	3	5	0	0	0
8	Remote Sensing & Geographic Information Systems	30+1*+ 1**	17	6 Non Gate	11	12	23	1	1	2	0	0	0	2	3+ 1Non Gate	6	0	0	0	5+ 3 Non Gate	5+ 2 Non Gate	15	0	0	0
9	Mechanical Design	17+1*	16	--	14	2	16	2	0	2	1	0	1	3	1	4	2	0	2	6	1	7	0	0	0
10	Manufacturing Engg.	16+1*	15	1 Navy Spon.	16	0	16	2	0	2	1	0	1	3	0	3	2	0	2	7+ 1Navy Spon.	0	8	0	0	0
11	Mechatronics Engg.	29+1*	24	2 Non Gate	23	3	26	4	0	4	0	0	0	5	1 Non Gate	6	1	0	1	13	1+ 1Non Gate	15	0	0	0

Sl. No.	Name of the Programmes	Intake	Admitted					Out of the total admissions-No. of candidates admitted under category																	
			GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC			PWD		
					M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO
12	Thermal Engineering	16+1*+1**	15	1 QIP Poly	15	1	16	2	0	2	1	0	1	5	0	5	1	0	1	5+1QIP Poly	1	7	0	0	0
13	Power & Energy Systems	30+1*	29	2 ICCR	24	7	31	3	1	4	2	0	2	7	2	9	1	1	2	8+ 2 ICCR	3	13	1 (OB)	0	1
14	VLSI Design	30+1*+1**	29	1 DASA	23	7	30	1	3	4	2	0	2	7	1	8	2	0	2	11	2+ 1 DASA	14	0	0	0
15	Communication Engineering and Networks	30+1*+1**	28	--	19	9	28	2	2	4	1	0	1	5	4	9	1	1	2	8	2	10	2 1 OC 1OB	0	2
16	Signal Processing and machine learning	30+1**	27	--	19	8	27	1	2	3	2	0	2	5	3	8	1	1	2	10	2	12	0	0	0
17	Chemical Engineering	16+1*	12	--	9	3	12	1	0	1	0	0	0	3	1	4	1	0	1	4	2	6	0	0	0
18	Environmental Science and Technology	30+1*	9	1 Non Gate	4	6	10	0	1	1	0	0	0	0	0	0	0	0	0	4	4+ 1Non Gate	9	0	0	0
19	Industrial Biotechnology	30+1*	25	3 Non Gate	6	22	28	1	3	4	0	1Non Gate	1	1	3+ 2Non Gate	6	1	0	1	3	13	16	0	0	0
20	Materials Engg.	30+1*	21	3 Non Gate	21	3	24	1	1	2	0	0	0	1	0	1	0	0	0	16+ 3Non gate	2	21	0	0	0
21	Process Metallurgy	16+1*+1**	13	--	13	0	13	2	0	2	0	0	0	2	0	2	0	0	0	9	0	9	0	0	0
22	Nanotechnology	16+1*	5	1 Non Gate	4	2	6	0	1	1	1	0	1	1	0	1	0	0	0	2	1 Non Gate	3	0	0	0
23	Computer Science &Engg.	30+1*+1**	26	1 ICCR	21	6	27	1	1	2	1	1	2	4	1	5	1	1	2	13	1+ 1 ICCR	15	1 (OB)	0	1

Sl. No.	Name of the Programmes	Intake	Admitted					Out of the total admissions-No. of candidates admitted under category																	
			GATE (Scholarship seats)	Other	Total			SC			ST			OBC			EWS			OC			PWD		
					M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO	M	F	TO
24	Computer Science &Engg. – Information Security	30+1*	31	--	26	5	31	1	4	5	1	0	1	8	1	9	3	0	3	12	0	12	1 (OC)	0	1
25	Information Technology	30+1*	27	--	20	7	27	3	0	3	1	0	1	7	3	10	1	1	2	8	3	11	0	0	0
26	Computational and Data Science	30+1*	25	--	18	7	25	1	2	3	0	1	1	4	3	7	1	0	1	12	1	13	0	0	0
	Total	**668 (642 CCMT + 26 Sponsored) 25-ICCR 9DASA 30L&T Spon.**	**561**	**16 Non Gate 1Spon 6 ICCR 1NAVY 1DASA 2 QIP Poly 30L&T Spon.**	**445**	**173**	**618**	**49**	**26**	**75**	**20**	**2 1 Non Gate**	**23**	**99**	**46 4 Non Gate**	**149**	**31**	**7**	**38**	**199 6 Non Gate 2 QIP Poly 5 ICCR 1 Spon. 1 Navy Spon 26 L&T Spon.**	**76 5 Non Gate 1 ICCR 1 DASA 4 L&T Spon.**	**327**	**6**	**0**	**6**
Total Admission - 618																									

**Additional seats reserved for the international students under I.C.C.R. Scheme*

*** Sanctioned seats for DASA candidates, The above intake of M.Tech excluding the intake of QIP allotted by AICTE and two seats of Indian Navy Sponsored (One seat each in Mechanical Engg. & E&C Dept.), L&T – Additional seats reserved for L&T Sponsored candidates.*

M.TECH. PROGRAMME (BY RESEARCH) 2019-20

OC	OC PwD	EWS	EWS PwD	OBC	OBC PwD	SC	SC PwD	ST	ST PwD	Total
24	1	3	0	14	1	8	1	3	0	**55**

Sl. No.	Name of the Programme	No. of candidates admitted		Total number of candidates admitted		
		Gate Scholarship Seat	Non-Scholarship Seat	M	F	Total Admission
DEPARTMENT OF CIVIL ENGINEERING						
1	Structural Engg.	03 (OC) 01 (OBC)	--	02	02	04
2	Transportation Engg.	--	--	--	--	--
3	Construction Technology and Management	--	--	--	--	--
	Geotechnical Engineering	01 (OC) 01 (SC)	--	02	--	02
4	Environmental Engg.	--	--	--	--	--
`DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING						
1	Nanotechnology	--	01 (OC) ER Spon	--	01	01
2	Process Metallurgy	--	--	--	--	--
3	Materials Engg.	--	--	--	--	--
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING						
1	VLSI Design	02(OC), 01 (SC)	--	02	01	03
2	Communication Engineering	02 (OC)	--	01	01	02
3	Signal Processing and machine learning	--	--	--	--	--
DEPARTMENT OF MECHANICAL ENGINEERING						
1	Mechanical Design	01(OC), 1(OBC)	--	02	--	02
2	Mechatronics Engineering	01(OC), 1(OBC)	--	02	--	02
3	Manufacturing Engineering	01(OC)	--	01	--	01
4	Thermal Engg.	1 (OBC)	01 (OC) ER Spon, 1 (OC) IR- NITK	02	01	03
DEPARTMENT OF MINING ENGINEERING						
1	Rock Excavation Technology and Management	--	--	--	--	--
DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS						
1	Remote Sensing & Geographic's Information Systems	--	--	--	--	--
2	Marine Structures	--	--	--	--	--
3	Water Resources Engineering & Mgt.	01 (OC)	--	01	--	01
DEPARTMENT OF CHEMICAL ENGINEERING						
1	Chemical Engineering	--	--	--	--	--
2	Environmental Science and Technology	--	--	--	--	--
3	Industrial Biotechnology	--	--	--	--	--

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING						
1	Power and Energy Systems	01 (OC)	--	01	--	01
COMPUTER SCIENCE & ENGINEERING						
1	Computer Science and Engineering	01(OC)	--	01	--	01
2	Computer Science and Engineering - Information Security	02 (OC)	--	01	01	02
INFORMATION TECHNOLOGY						
1	Information Technology	01 (OC)	--	01	--	01
DEPARTMENT OF MACS						
1	Computational and Data Science	01(OC)	--	01	--	01
	Total	**18 (OC), 4 OBC, 2 SC = 24**	**2 (OC) ER Spon, 1 (OC) IR -NITK = 3**	**20**	**07**	**27**

M.C.A., M.B.A. AND M.Sc. PROGRAMMES

Particulars of Admissions during 2019-20

Sl. No.	Programme	Intake	Total Admission			SC		ST		OBC		OC		EWS		PwD		Sponsored	
			M	F	Total	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	Master of Computer Applications (MCA)	51+ 1**	37	13	**50**	7	1	3	0	7	5	16	7	2	0	2 (1OC, 1OB)	0	0	0
2	Master of Business Administration (MBA)	70+5*+ 1**	16	12	**28**	0	3	1	0	2	3	13	6	0	0	0	0	0	0
3	M.Sc. (Chemistry)	29+ 1**	10	14	**24**	1	0	0	0	3	5	6	7	0	2	0	0	0	0
4	M.Sc. (Physics)	29+ 1**	17	7	**24**	3	1	1	0	3	3	9	2	1	1	0	0	0	0
	Total	**179+ 5*+ 4** =188**	**80**	**46**	**126**	**11**	**5**	**5**	**0**	**15**	**16**	**44**	**22**	**3**	**3**	**2**	**0**	**0**	**0**

* Seats reserved for DASA candidates

** Additional seats for the international students under ICCR Scheme

PwD – Persons with Disabilities

Ph.D. PROGRAMME

Particulars of Intake & Admissions made during 2019-20

Intake for the year 2019-20

OC	OC PWD	EWS	EWS PWD	OBC	OBC PWD	SC	SC PWD	ST	ST PWD	**Total**
72	4	13	1	39	2	21	1	11	1	**165**

Details of Admissions made during 2019-20

Sl No.	**Name of the Department**	**Admitted Full time Programme**				**Admitted Under External Registrants (Part Time)**		**Out of the total Full time scholars, Number of Candidates belonging to the category of**									
		Fellowship Holder		**Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian**				**OC**		**EWS**		**OBC**		**SC**		**ST**	
		M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
1	Civil Engg	6 + 3*	4 + 3*	1 (OC) SPON, 1 ICCR, 1QIP	1 QIP	1 + 1* ER, 1 IR	---	5+1*	3+1*	--	--	2*	1*	1	1+ 1*	--	--
2	Applied Mech. & Hydraulics	1 + 3*	2 + 2*	2* (OC) NSPON, 4 ICCR	1 QIP	1 ER 2+1* IR	1* IR	1+1*	2+1*	--	1*	1*	-	--	--	1*	--
3	Mechanical Engg	14 + 5*	-	1* (OC) NSPON 1 (OC) SPON 1 Ethio. 4 QIP	1* (OC) NSPON	3 + 3*ER 3 IR	1 IR	9+1*	--	--	--	2+2*	--	2+2*	--	1	--
4	Electrical &Electronics Engg	6 +7*	1*	1* (OC) SPON	-	1 ER	3 ER -	4+1*	-	2*	-	1+4*	1*	1	-	-	-

Sl No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Out of the total Full time scholars, Number of Candidates belonging to the category of									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
5	Electronics & Communication Engg	2 + 2*	--	--	1 QIP	1ER	--	2+2*	--	--	---	---	---	---	---	---	--
6	Chemical Engg	1*	1 + 1*	1 QIP	-		1+1 *IR	--	1	--	--	1*	1*	--	--	--	--
7	Metallurgical & Materials Engg	5 + 2*	--	---	-	1ER 1+1* IR	--	3 + 1*	-	1*	--	1	--	--	--	1	--
8	Mining Engg	2*	--	1*(OC) NSPON	-	4*ER		1*	--	--	--	1*	--	--	--	--	--
9	Computer Science &Engg	1 + 2*	2	1 QIP		1+1* IR	1ER	1+2* (1*PwD)	2	--	---	---	---	---	---	---	--
10	Information Technology	2*	2 + 1*	1 + 1* (OC) SPON	1* (OC) SPON		1*ER	1*	1	--	--	1*	1	--	1*	--	--
11	Physics	2 + 2*	3 + 1*	2 (ST) CSIR	-	--	---	1+1*	3+1*	--	---	---	--	1+1*			
12	Chemistry	4	2 + 1*	1 (OC) SPON	2* (OC) NSPON 1 (OBC) CSIR, 1 (OC) INSPIRE	1*ER	1*IR	2	1	--	--	1	1+ 1*	1	--	--	--
13	Mathematical & Computational Sciences	3 + 1*	1			1ER	1*IR	3+1*	1	--	---	---	---	---	---	---	--

Sl No.	Name of the Department	Admitted Full time Programme				Admitted Under External Registrants (Part Time)		Out of the total Full time scholars, Number of Candidates belonging to the category of									
		Fellowship Holder		Other category-Non Fellowship+ QIP+ Sponsored + Ethiopian				OC		EWS		OBC		SC		ST	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
14	School of Management	2 + 1*	3 + 1*		1* (OC) NSPON	1*ER	---	1	3+1*	--	--	1+1*	--	---	---	---	--
	Total	**46 + 33***	**20 +11***	**4* (OC) NSPON**	**4* (OC) NSPON**	**9+10* ER**	**4+1 *ER**	**32+ 13* (1* PwD)**	**17+ 4***	**3***	**1***	**6+ 13***	**2+ 4***	**6+ 3***	**1+ 2***	**2+ 1***	**0**
				4 + 2* (OC) SPON	**1* (OC) SPON**	**8 + 3* IR**	**2+4 *IR**										
				2 (ST) CSIR	**1(OC) INSPIRE**												
				7 QIP	**1 (OBC) CSIR**												
				5 ICCR	**3 QIP**												
				1Ethiopian													
Total Admission - 186																	

** Admissions made during December session 2019 Spon= Sponsored. QIP = Admitted Under AICTE QIP Scheme,* PwD – Persons with Disabilities

Total Student's Strength

Programme	***Strength***
1. Undergraduate	3365
2. Post Graduate (Including MCA /M.Tech./M.Tech (Research)/MBA/M.Sc.)	1551
3. Ph.D. Programme	859
Total	**5775**

7. EVALUATION AND EXAMINATION

7.1 EDUCATION SYSTEM

The normal duration of programmes leading to B.Tech degree in Engineering is eight semesters. For full time M.Tech. Programmes, the duration of study is a minimum of four semesters and a maximum of four years. For Internal/external registrants, the duration shall be a minimum of five semesters and maximum of five years. For M.Tech. of study shall be a minimum of four by Research program for full-time students, the duration semesters and a maximum of four years. For Internal/External Registrants, the duration will be a minimum of five semesters and a maximum of five years. For Master of Science, programme the duration of study shall be a minimum of four semesters and a maximum of four years. For Master of Computer Application (MCA) the duration of study shall be a minimum of six semesters and a maximum of six years. For Master of Business Administration (MBA), the duration of study is a minimum of four semesters and a maximum of four years. For Doctoral Programmes (Ph.D.) the duration of study is a minimum of two years and maximum of seven years for all categories of research scholars.

Each academic year is divided into two semesters. A semester that is typically from August to Mid- December is called the ODD SEMESTER, and the one that is from January to Mid-May is called EVEN SEMESTER.

The medium of instruction, examination and project work is English only.

7.2 EXAMINATION & EVALUATION PROCEDURE

The examination and evaluation work of all the B.Tech./M.Tech./MCA/MSc/MBA students and Ph.D./M.Tech by Research candidates were carried out by the respective Faculty Members in their concerned Departments itself as per the regulations approved by the Senate of the Institute. The Grades obtained by each student with details of attendance in each course are submitted to the Examination/Evaluation Section for processing their Grade Cards as per the regulations of the Institute. The results are declared and pubished on the website of the Institute in time and Grade Cards were issued to all eligible students.

8. EXAMINATION RESULTS FOR 2019

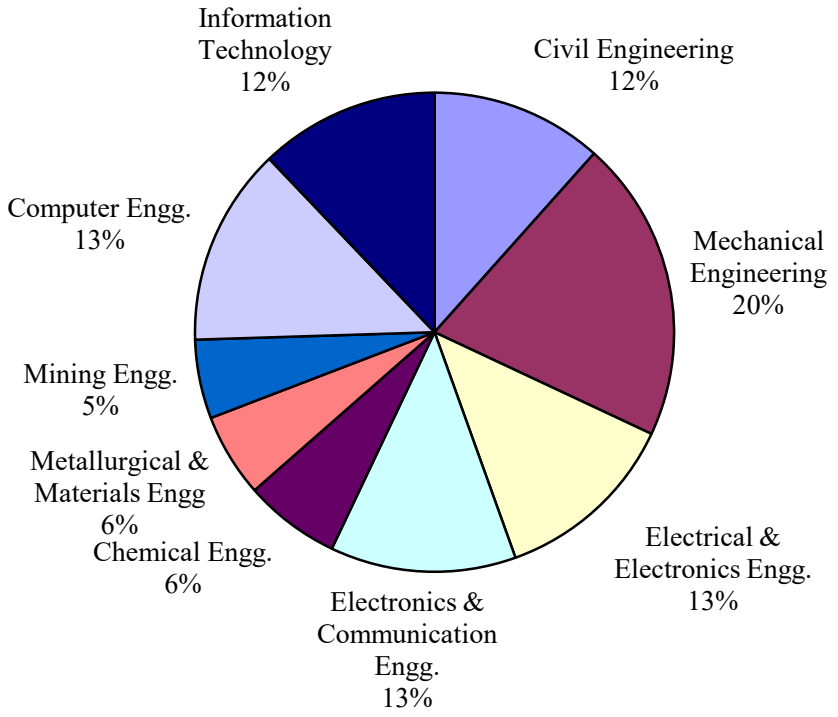
UNDER GRADUATE

Sl.No.	Branch	Total No. Appeared	No. of students passed in				Total Pass	Percentage of passes	No. of SC/ST candidates passed
			CGPA above 7 & below 10	CGPA above 6 & below 7	CGPA above 5 & below 6	CGPA below 5			
1.	Civil Engineering	96+1*	76	16	4+1*	0	96+1*	100.00	20
2.	Mechanical Engineering	159+4*	111	32	11+2*	3+2*	157+4*	98.77	28+1*
3.	Electrical And Electronics Engineering	104	73	23	4	2	102	98.08	18
4.	Electronics And Communication Engineering	104	79	20	2	2	103	99.04	18
5.	Chemical Engineering	49	27	13	8	0	48	97.96	8
6.	Metallurgical And Materials Engineering	37+1*	30	7	1*	0	37+1*	100.00	9+1*
7.	Mining Engineering	37	34	2	0	0	36	97.30	9
8.	Computer Science and Engineering	107	83	20	4	0	107	100.00	20
9.	Information Technology	103+2*	74	20+1*	6	1+1*	101+2*	98.10	19+1*
	*- Repeaters								

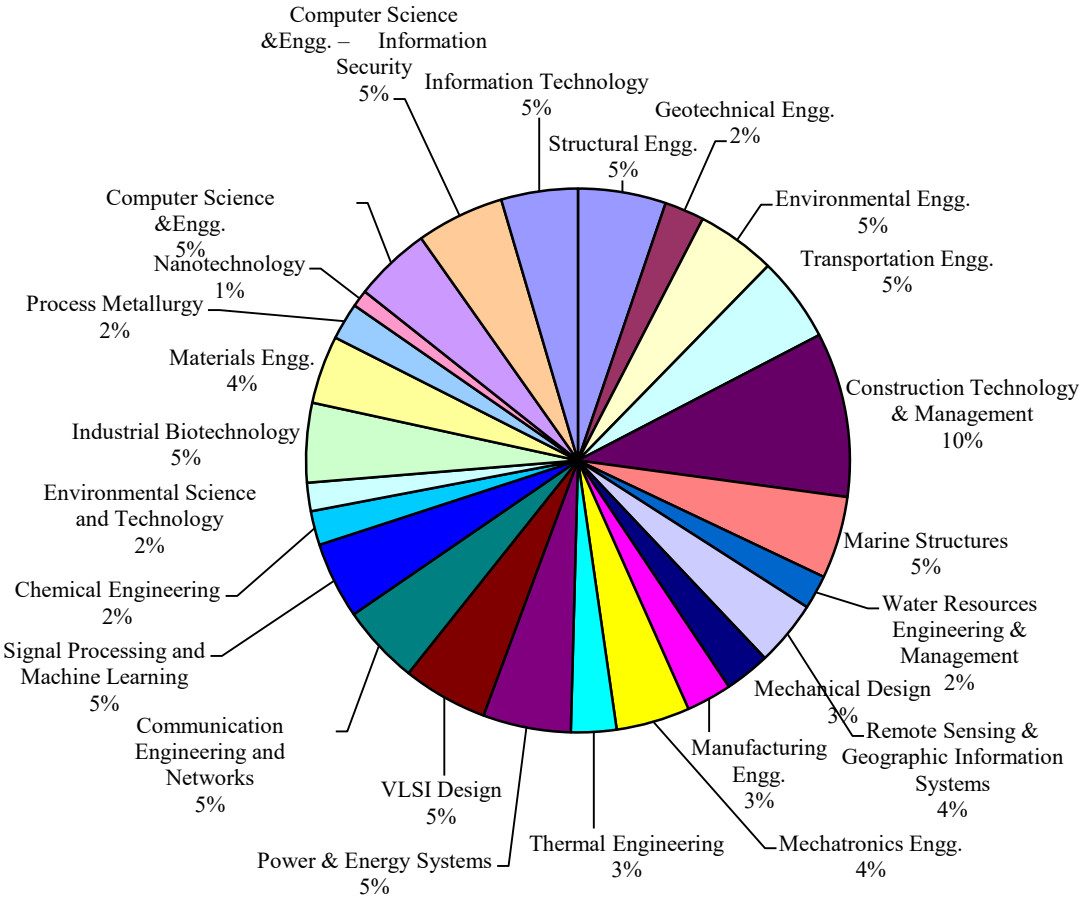
POST GRADUATE

Sl.No.	Branch	Total No. Appeared	No. of students passed in			Total Pass	Percentage of passes	No. of SC/ST candidates passed
			CGPA above 7 & below 10	CGPA above 6 & below 7	CGPA above 5.50 & below 6			
1.	Construction Technology & Management	53	47	3	0	50	94.34	3
2.	Structural Engineering	27	23	2	2	27	100.00	6
3.	Geotechnical Engineering	13	13	0	0	13	100.00	2
4.	Environmental Engineering	21	21	0	0	21	100.00	3
5.	Transportation Engineering	25	18	7	0	25	100.00	5
6.	Marine Structures	22	21	1	0	22	100.00	4
7.	Remote Sensing & Geographic Information System	21	21	0	0	21	100.00	2
8.	Water Resources Engineering & Management	11	11	0	0	11	100.00	2
9.	Design and Precision Engineering	11	9	1	0	10	90.91	3
10.	Manufacturing Engineering	11	9	1	0	10	90.91	2
11.	Mechatronics Engineering	19	17	2	0	19	100.00	4
12.	Thermal Engineering	14	10	4	0	14	100.00	4
13.	Power & Energy Systems	16	12	2	1	15	93.75	2
14.	VLSI Design	21	16	4	1	21	100.00	3
15.	Communication Engineering	20	14	5	0	19	95.00	3
16.	Chemical Plant Design	5	5	0	0	5	100.00	0
17.	Industrial Biotechnology	15	9	6	0	15	100.00	1

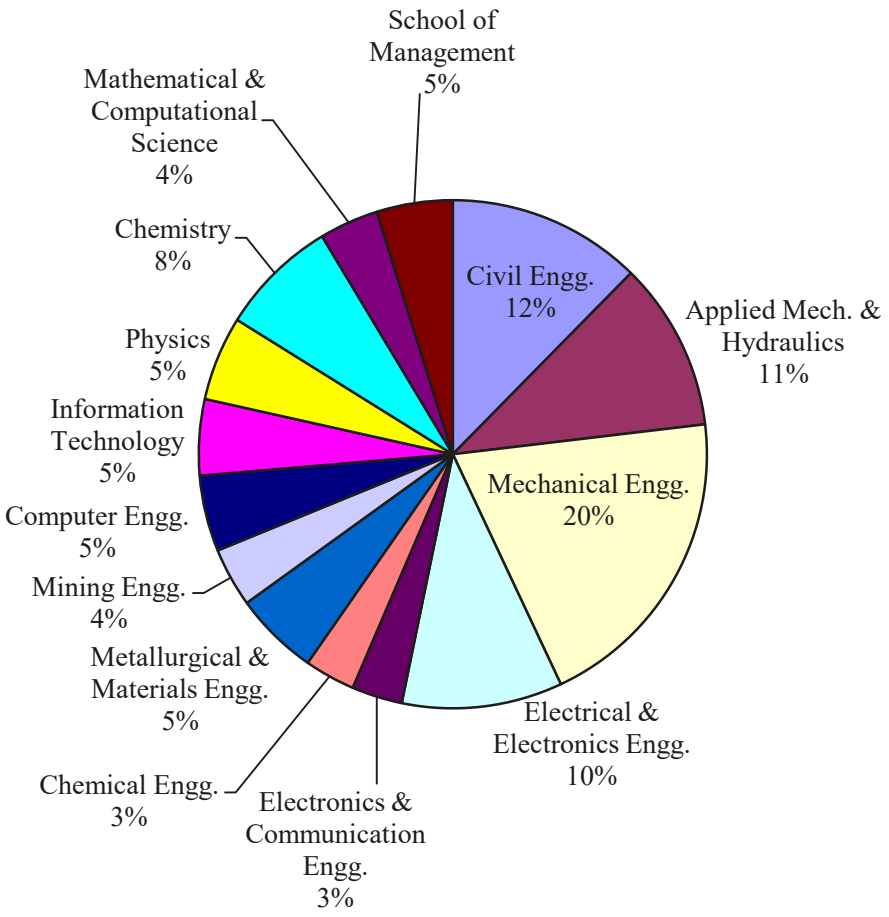
18.	Industrial Pollution Control	5	3	2	0	5	100.00	0
19.	Process Metallurgy	4	4	0	0	4	100.00	0
20.	Materials Engineering	25	21	3	1	25	100.00	5
21.	Nanotechnology	6	6	0	0	6	100.00	2
22.	Computational Mathematics	13	10	3	0	13	100.00	1
23.	Computer Science and Engineering	23	20	2	1	23	100.00	5
24.	Computer Science and Engineering - Information Security	22	17	4	1	22	100.00	5
25.	Information Technology	20	13	5	2	20	100.00	4
26.	Master of Computer Applications	90	68	18	4	90	100.00	20
27.	Master of Business Administration	32	26	6	0	32	100.00	2
28.	Master of Science (Chemistry)	26	21	3	1	25	96.15	4
29.	Master of Science (Physics)	26	21+2*	2	1	24+2*	100.00	4
		617				609		
	*- Repeaters							



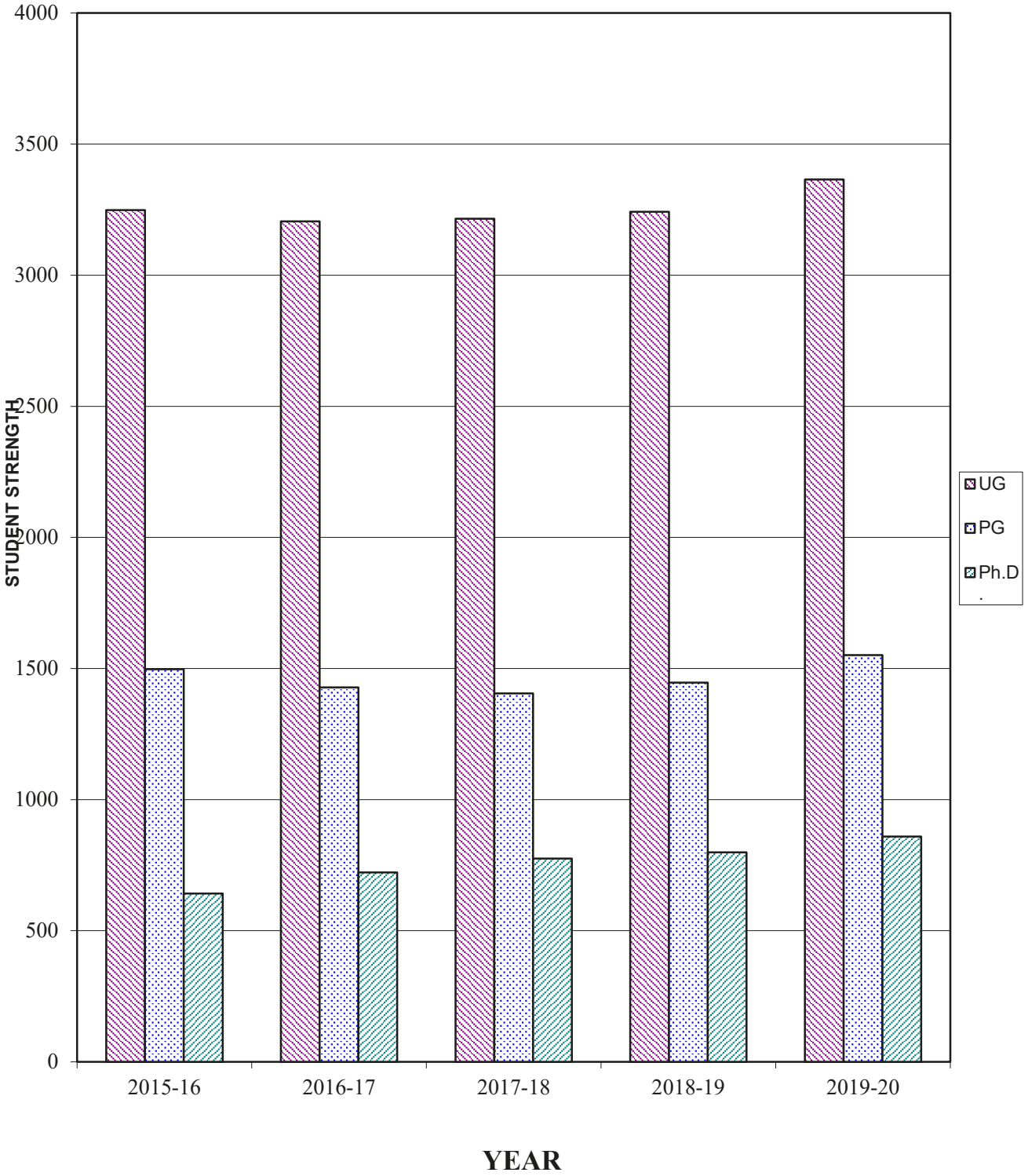
Pie chart showing discipline wise B.Tech. admissions 2019-20



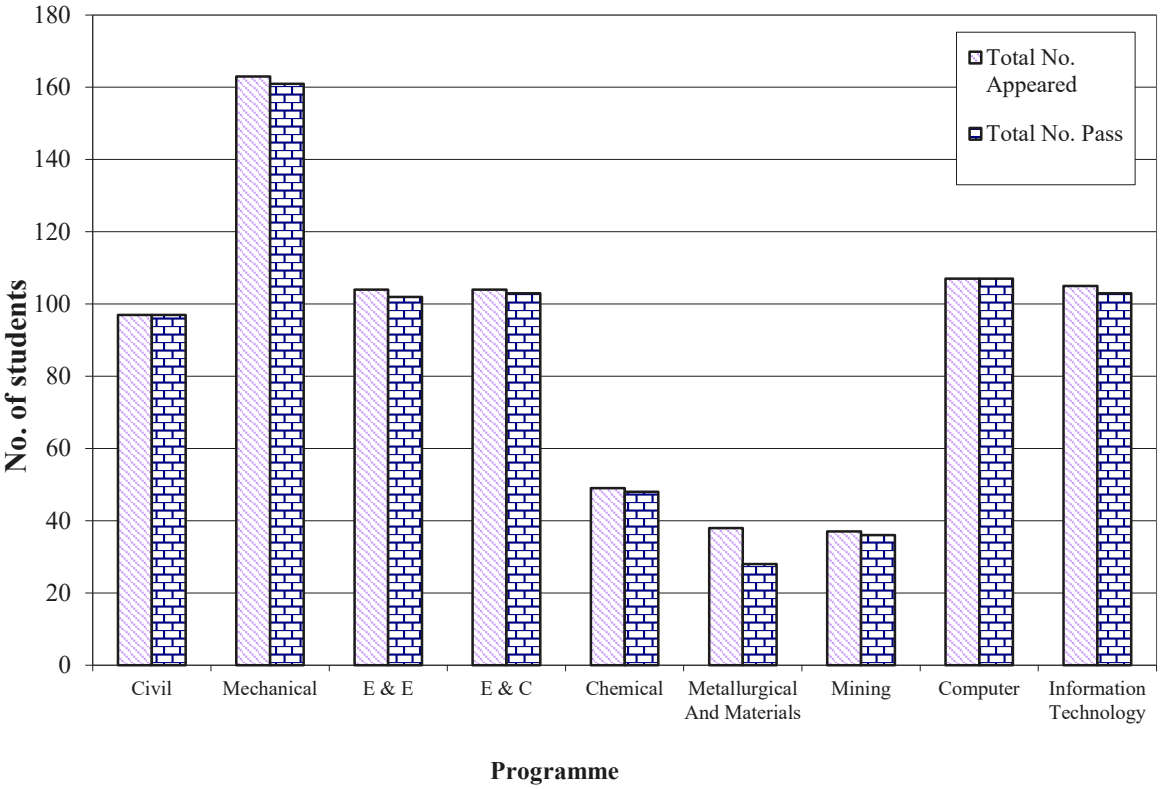
Pie chart showing discipline wise M.Tech. admissions 2019-20



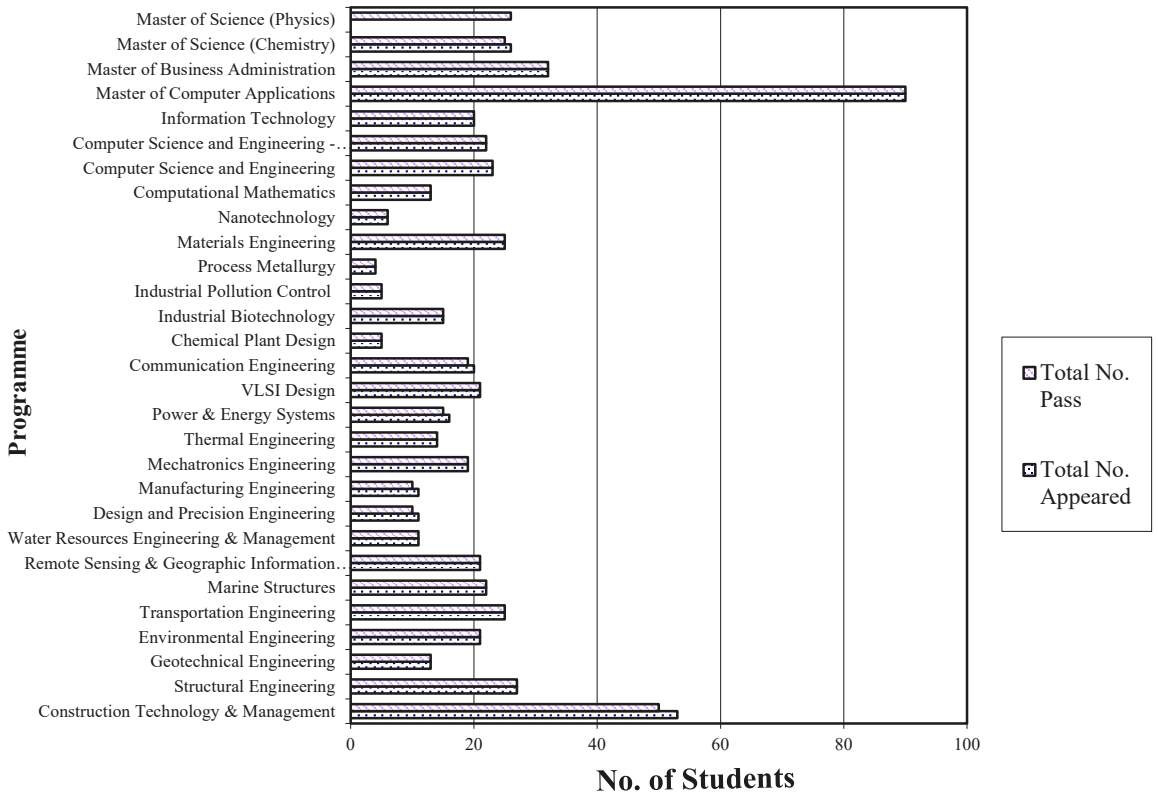
Pie chart showing discipline with Ph.D. admissions 2019-20



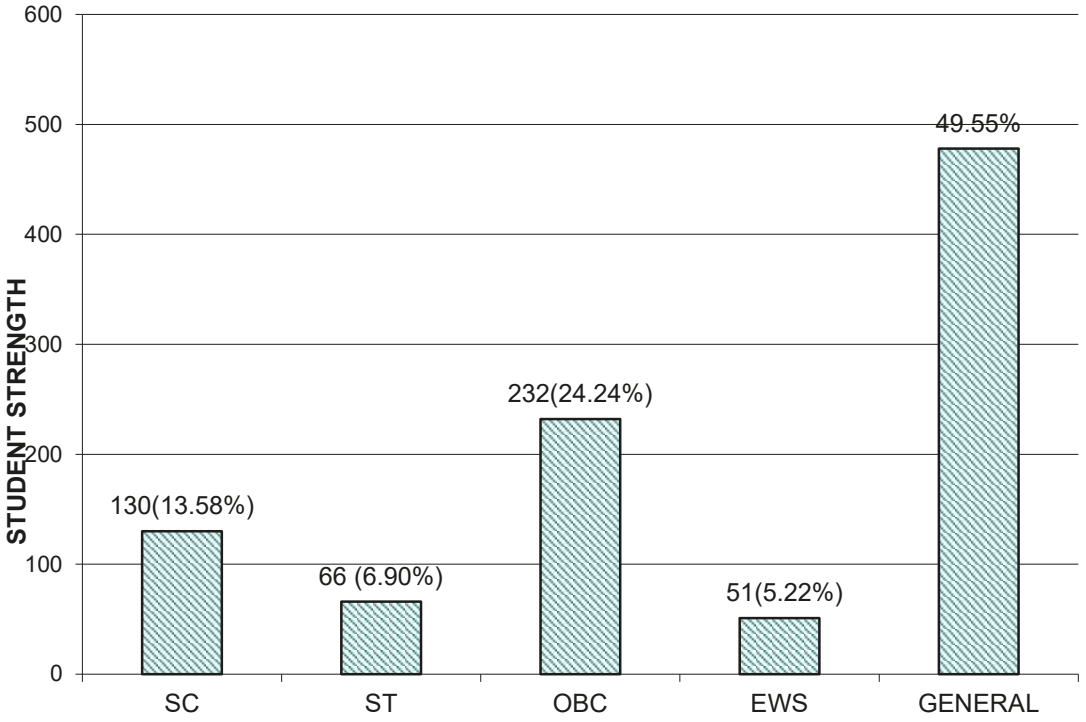
Growth enrolment UG/PG/Ph.D. students during last 5 years 2015-2019



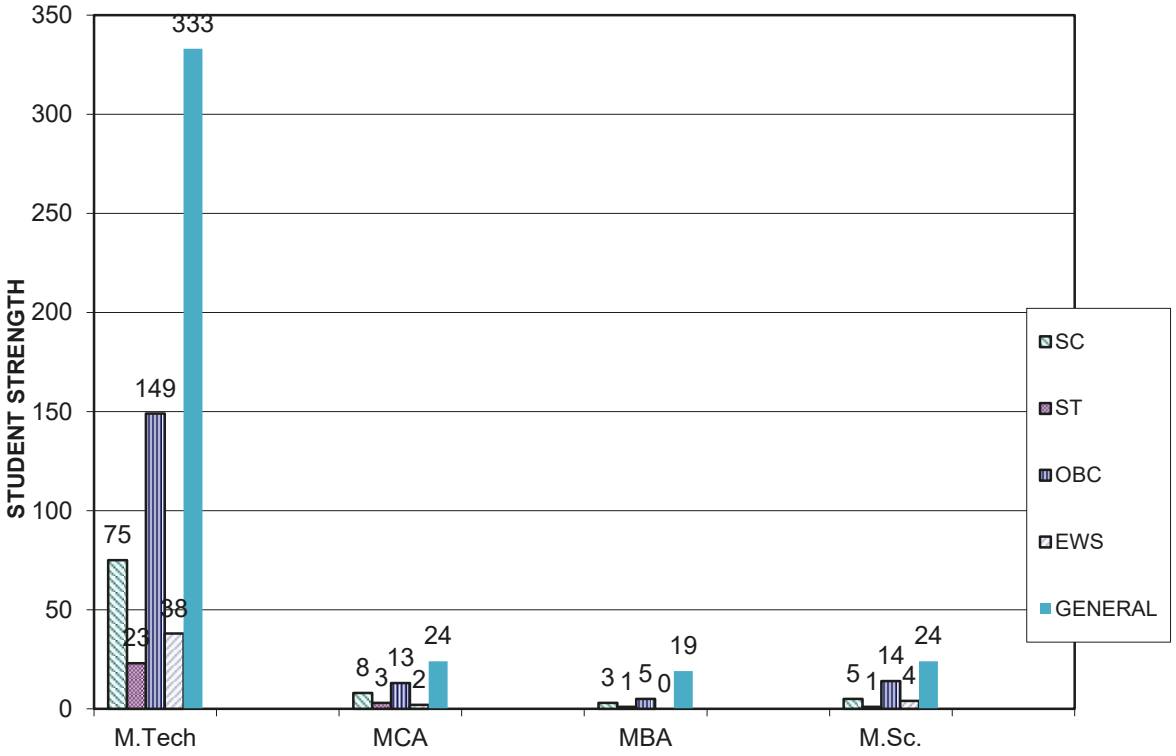
Examination Results 2019(UG)



Examination Results 2019(PG)



Category wise details of UG admissions 2019-20



Category wise details of PG admissions 2019-20

Ranks securedby the B.Tech./M.Tech./MCA/MBA/M.Sc. (Physics & Chemistry) Examination held in April/May, 2019

B.Tech.

Sl. No.	Branch	Reg. No.	Name of the Student
1	CHEMICAL ENGINEERING	15653415CH30	PRABHJOT KAUR LUTHRA 1) Institute Medal 2) Mohan V Hosur Gold Medal 3) 1986 Batch Gold Medal
2	CIVIL ENGINEERING	15670815CV142	LEKHHA SHARMA 1) Institute Medal 2) Prof. M. N. Shivshankar Gold Medal 3) Dr. R.K. Yaji Gold Medal 4) 1986 Batch Gold Medal
3	COMPUTER SCIENCE AND ENGINEERING	15624015CO213	DERIK CLIVE R 1) Institute Medal
4	ELECTRONICS & COMMUNICATION ENGINEERING	15622515EC121	HITESH S 1) Institute Medal 2) 1986 Batch Gold Medal
		15629715EC256	CHANDRATREYA VISHAL PANKAJ 1) Institute Medal 2) 1986 Batch Gold Medal
5	ELECTRICAL & ELECTRONICS ENGINEERING	15664015EE107	BURYE ROHAN SANDEEP 1) Institute Medal 2) Prof. M.R. Shenoy Memorial Prize 3) Prof. K. M. Hebbar Gold Medal 4) 1986 Batch Gold Medal
6	INFORMATION TECHNOLOGY	15610415IT217	M M VIKRAM 1) Institute Medal
7	MECHANICAL ENGINEERING	15708815ME162	PRANAY PRAVEEN NAGRANI 1)Institute Medal 2) 1986 Batch Gold Medal 3) Prof. Shuichi Torii Gold Medal
8	METALLURGICAL & MATERIALS ENGINEERING	15652115MT43	VISHESH GOEL 1)Institute Medal 2) Karthik Alloys Gold Medal 3) Prof. H. V. Sudhaker Nayak Gold Medal 4) SMIORE Gold Medal 5) 1986 Batch Gold Medal
9	MINING ENGINEERING	15670715MN04	APOORV HARSH 1)Institute Medal 2) Hutti Gold Mines Medal

POST GRADUATES

Sl. No.	Branch	Reg. No.	Name of the Student
1	Marine Structures	172541MS019	SAYYAD ZAID MUBARAK 1) Institute Medal
2	Remote Sensing & Geographic Information System	172410RS014	NIKITHA ITTYCHERIA 1) Institute Medal
3	Water Resources Engineering & Management	172384WR012	SRUTHI S KUMAR 1) Institute Medal
4	Chemical Plant Design	172069PD001	NITHISH T 1) Institute Medal
5	Industrial Biotechnology	172194IB005	FENITA HEPHZIBAH D 1) Institute Medal
6	Industrial Pollution Control	172427PC004	P GOVARDHAN 1) Institute Medal
7	Construction Technology & Management	172344CM007	ANUJ SHARMA 1) Institute Medal
8	Environmental Engineering	172192EN015	NAMAN JAIN 1) Institute Medal
9	Geotechnical Engineering	172482GT008	MANNE BALAJI 1) Institute Medal
10	Structural Engineering	172243ST019	RISHANA KAPAT 1) Institute Medal
11	Transportation Engineering	172177TS009	GAYATRI VENKITESH 1) Institute Medal
12	Computer Science & Engineering	172080CS014	KAJOL JAIN 1) Institute Medal
13	Computer Science & Engineering – Information Security	172393IS016	PARMAR NEHAL KIRANBHAI 1) Institute Medal
14	Power & Energy Systems	172021PS021	SIDDHARTH NAVSE 1) Institute Medal
15	Communication Engineering	172205CE021	SHIVANGI JAIN 1) Institute Medal
16	VLSI Design	172012VL001	ADITYA JAIN 1) Institute Medal
17	Information Technology	172042IT005	KOKKILIGADDA KINNERA 1) Institute Medal
18	Computational Mathematics	172022MA013	SATWIK RAJ 1) Institute Medal
19	Design and Precision Engineering	172274DP011	SAURABH RANJAN 1) Institute Medal
20	Manufacturing Engineering	172152MF001	BEESETTY PAVAN KUMAR 1) Institute Medal 2) Prof. K. L. Bhat & Prof. P. Prasad Rao Gold Medal

21	Mechatronics Engineering	172242MC007	GEETHANJALI T 1) Institute Medal
		172329MC020	SHAIJAL KORMATH 1) Institute Medal
22	Thermal Engineering	172162TH005	BUDRUK AJINKYA RAJENDRA 1) Institute Medal 2) Dr. B. S. Samaga Award
23	Materials Engineering	172433ML010	DINGARI SREERAM 1) Institute Medal 2) Prof. K R Hebbar Gold Medal
24	Nanotechnology	172508NT004	JAYAPIRIYA U S 1) Institute Medal
25	Process Metallurgy	172211PM004	SUMIT SHRIVASTAVA 1) Institute Medal 2) Smt. Sarojini Pillay Gold Medal

Master of Computer Applications - 2019

Sl. No.	Branch	Reg. No.	Name of the Student
26	Master of Computer Applications	16204816CA41	MAYANK TRIPATHI 1) Institute Medal 2) Dr. Saroja R Hebbar Gold Medal

Master of Business Administration - 2019

Sl. No.	Branch	Reg. No.	Name of the Student
27	Master of Business Administration	175009SM021	PRATHIJNA RAO K 1) Institute Medal

Master of Science - 2019

Sl. No.	Branch	Reg. No.	Name of the Student
28	Chemistry	176031CY016	PALLAVI 1) Institute Medal 2) Prof. G. H. Kulkarni Gold Medal
29	Physics	176022PH020	SUJAN K K 1) Institute Medal 2) K. Subbarayappa Gold Medal

9. Ph.D.PROGRAMMES & DOCTORATES AWARDED

PH.D. PROGRMMES – EXISTING & PROPOSED

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

EXISTING SPECIALIZATION

(i) Coastal Engineering
(ii) Water Resources Engineering
(iii) Remote Sensing and GIS Applications

DEPARTMENT OF CIVIL ENGINEERING

EXISTING SPECIALIZATION:

Construction Tech. and Management, Environmental Engg. Geotechnical Engg., Structural Engg., Transportation Engg. Earth sciences.

DEPARTMENT OF CHEMICAL ENGINEERING

EXISTING SPECIALIZATION:

Chemical Engineering-Process Dynamics and Control, Process Modelling and Simulation, System Identification, Subspace Identification, Process Systems Engineering, Process Optimization, Renewable Energy.

PROPOSED SPECILIZATION:-

Nano Technology, Bioenergy, Computational Fluid Dynamics (CFD), Multi Phase Flow, Process Dynamics and Control.

DEPARTMENT OF CHEMISTRY

Green Chemistry, Biomass conversion, Reaction methodlogy. Corrosion, Membrane technology, Materials chemistry, Nanochemistry, Polymers, Catalysis, Nanofluids, Supercapacitors, Photocatalysis, Supercapacitors, Thermoelectrics, Materials for energy and environmental applications etc

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING:

EXISTING SPECILIZATION:-

Computer Networks, Software Engineering, Distributed Computing, Data Management, Information Security, High Performance Computing, Computer Vision, Cloud Computing, Image Processing, Speech Processing, Mobile computing

PROPOSED SPECIALIZATION:

Graph Theory, Graph Algorithms, Big Data Analytics, Internet of Things (IoT).

DEPARTMENT OF CHEMISTRY

EXISTING SPECIALIZATION:

Green Chemistry, Biomass conversion, Reaction methodlogy. Corrosion, Membrane technology, Materials chemistry, Nanochemistry, Polymers, Catalysis, Nanofluids, Supercapacitors, Photocatalysis, Supercapacitors, Thermoelectrics, Materials for energy and environmental applications etc

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

EXISTING SPECIALIZATION

Digital VLSI Design, Analog and Mixed Signal Design, Digital Signal Processing, Speech, Audio, Image and Video Processing, Digital Communication, Error Control Coding, Free Space Optics, RF MEMS, Microwave and RF Circuits, Wireless Sensor Networks, High Frequency Electronics, Semiconductor Devices, Embedded Systems, Reconfigurable Computing.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EXISTINGSPECIALIZATION

Power Systems, Distributed Generation, Energy Systems, Power Electronics & Drives, Renewable Energy, High Voltage Engineering, Flexible AC Transmission System (FACTs), Control Systems, Power System Protection, Smart Grid & Sensor Networks

DEPARTMENT OF INFORMATION TECHNOLOGY

EXISTINGSPECIALIZATION

Affective Computing, Big Data Analytics, Blockchain Technologies, Cloud/Edge/Fog Computing, Cloud Security, Computer Networks, Cyber Security, Databases, Data Mining, Deep Learning Applications, Distributed Computing, Future Internet Architecture, Healthcare Informatics, High Performance Computing, Information Retrieval, Information Security, Internet of Things, Mobile Software Engineering, Natural Language Processing, Network Security, Semantic Web Technology, Social Multimedia/Social Network Analysis, , Software Engineering , Web Services, Wireless Sensor Networks.

DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

EXISTING SPECIALIZATION

Computational Systems, Nonlinear Analysis, Functional Analysis, Real Analysis, Number Theory & Cryptography, Numerical Analysis, Graph Theory, Optimization, Fluid Dynamics, Computer applications, Image processing, Wireless Networks,Spectral Analysis, *Wavelets and Signal Processing, Complex Dynamics, Reliability Engineering, Stochastic Processes,*

PROPOSED SPECIALISATION:-

Linear Algebra, Linear Algebra, Generalized Inverses, Cybersecurity, Real-world Crypto Protocols, Quantum-safe Cryptography, IoT security

DEPARTMENT OF MECHANICAL ENGINEERING

EXISTING SPECIALIZATION

Thermal Engineering
Manufacturing Engineering
Design and Precision Engineering
Mechatronics Engineering

DEPARTMENT OF MINING ENGINEERING

EXISTING SPECIALIZATION

Rock Mechanics and Ground Control, Drilling and Blasting, Mine Planning, Environmental Management, Waste Management, Reliability and Safety Engineering.

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

EXISTING SPECIALIZATION

Process Metallurgy, Physical Metallurgy, Mechanical Metallurgy, Materials Engineering, Nanotechnology

DEPARTMENT OF PHYSICS

EXISTING SPECIALIZATION

Solid State Physics, Materials Science, Theoretical Physics, Electromagnetics, Photonics, Compound Semiconductor thin films

PROPOSED SPECIALIZATION

Theoretical investigation of strongly correlated systems and solar cells, Cosmology and Early Universe

SCHOOL OF MANAGEMENT

EXISTING SPECIALIZATION

Strategic Management, International Business, Technology Management, Organizational Behaviour, Human Resource Management, Marketing, Corporate Finance, Capital Markets, Behavioural Finance, Development Economics, International Economics, Agricultural Economics, Rural Development, Applied Econometrics, Operations Management, Information Systems, E-Governance, English and Comparative Literature, and Other related areas.

DOCTORATES AWARDED

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

Upto 31st March 2020 : 91
During period 1st April 2019 to 31st March 2020 : 12

1. Sreedhara. B.M., Prediction of Local Scour Around Bridge pier using Soft Computing Techniques, Dr. Manu & Dr. S. Mandal
2. Satish Bhaurao More, Estimation of Saturated Hydraulic Conductivity in Spatially variable fields using various soft computing techniques, Dr. Paresh Chandra Deka.
3. Anoop.I. Shirkol, Hydro elastic Analysis of very large floating structure (VLFS) using Boundary Element Approach, Dr. T. Nasar.
4. Harish Kumar S, Modelling of River Aquifer Interactions: A Top-Down Approach, Dr. M.K. Nagaraj.
5. Rishikeshan C A., Feature Extraction Strategies Based on Mathematical Morphology for the Analysis of Remotely Sensed Imagery, Dr. H. Ramesh.
6. Sujay Ragavendra N., Assessment of Spatio-Temporal Variability of Streambed Hydraulic conductivity: A Case Study in Pavanje River , India, Dr. Paresh Chandra Deka.
7. Dayananda Shetty K., Optimization of Vessel Turnaround Time at a Seaport with Special reference to New Mangalore Port Trust, Dr. G. S. Dwarakish.
8. Suman Kundapura, Soft computing techniques in prediction of performance of Semi-circular Breakwaters, Dr. Subba Rao & Dr. A. Vittal Hegde.
9. Muralidhar. N. ,Mechanical Characterization of Arecanut Husk fiber composite panels under Static & Dynamic Loading conditions, Dr. Vadivuchezhian K.
10. Praveen K.M. ,Hydro elastic analysis of floating and submerged flexible structures, Dr. Debabrata Karmakar.
11. Abhishek A Pathak, Characterization of Historical and Future Hydro meteorological Droughts in an India Tropical River Basin, Dr. B.M. Dodamani.
12. Vinay D.C., Asymmetric Relationship of Nino Indices with rainfall extremes over Western Ghats and Coastal region of Karnataka, Dr. Amba Shetty

DEPARTMENT OF CHEMICAL ENGINEERING

1. Ms. Buruga Kezia “Ultrasound assisted synthesis, Characterization, and Applications of Halloysite -Polymer Nanocomposites” 2019, Dr. T.K. Jagannathan.
2. Ms. Sushma Ishwar Havanur - “Synthesis, characterization and application of functionalized Graphene quantum dots incorporated micro/nano poly(N, N-Diethylacrylamide) hydrogel as drug delivery system” 2019 , Dr. P.E. JagadeeshBabu.
3. Ms. Rashmi B.S. “Aqueous two phase extraction of lectin from *Pisum sativum* seeds” 2019, Dr. I. Regupathi.

4. Ms. Priyanka U. "Biosynthesis of Zinc Sulphide (ZnS) nanoparticles from endophytic fungi *Aspergillus flavus* for degradation of organic pollutants" 2019 , Dr. Raj Mohan B.
5. Mr. Vishnu M.- "Studies on removal of heavy metals from aqueous solution using melanin coated matrix." 2019, Dr. Keyur Raval & Dr. Raj Mohan B.
6. Mr. Huchappa Kadlimatti "Microwave Assisted Pyrolysis of Food waste to Biochar and Biofuels." 2019, Dr. Raj Mohan B. & Dr. Saidutta M.B.
7. Ms. Smruthi G Prabhu ,"Studies on the potential of *Pteris vittata* L. as a biosorbent for heavy metal removal", 2020- Dr. Srinikethan G.
8. Mr. Suman Das "Development of Novel Photocatalytic Reactor for Dye Wastewater Treatment", 2020- Dr. Hari Mahalingam.
9. Ms. Gayathri G. "Studies on Bacterial Cellulose production using industrial wastewater", 2020, Dr. G. Srinikethan.
10. Ms. Swapnali S Pawar "Reverse Micellar Extraction of Lactoferrin from Whey", 2020- Dr. I. Regupathi & Dr. Prasanna B.D.

DEPARTMENT OF CIVIL ENGINEERING

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded (including those for which viva has been successfully completed):- 07

(FOR PERIOD OF REPORT ONLY)

1. Jayakesh K., "Experimental Studies on Interface Bond Strength of Ultra-Thin Whitetopping Pavements under Static and Dynamic Loading Conditions", 2019, (Supervisor:Dr. Suresha S.N)
2. Uma S "Solid-state Anaerobic Co-digestion of Organic Substrates for Biogas Production" (Supervisors: Dr. Arun Kumar Thalla & Dr. Devatha C.P.)
3. Anila Cyril, "Application of Electronic Ticket Machine Data for Analysis and Forecasting of Bus Transport Demand" (Supervisors: Dr. Raviraj H. Mulangi., and Prof. Varghese George)
4. Archana J, "Torsional Response of Asymmetric Buildings under Earthquake Loads", 2019, B R Jayalekshmi and Katta Venkataramana.
5. Shreyasvi C "Probabilistic seismic hazard assessment and site characterization of southwest India", 2019 (Supervisor: Katta Venkataramana)
6. Mahesh G.B. "Sequential Anaerobic-Aerobic Treatment of Herbicides in Water", 2019 (Supervisor: Dr. Basavaraju Manu)
7. Bhaskar S," Fenton's Oxidation of Selective Herbicides in Water Using Lateritic Iron Extracted By Acidithiobacillus Ferrooxidans BMSNITK17", 2019 (Supervisor: Dr. Basavaraju Manu)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded: 06

1. Anitakumari S, (Reg.No : 121174CS12F01) "Adaptive Resource Management in SLA Aware Elastic Clouds" 2019, Prof. K.Chandrasekaran
2. Saumya A Hegde (Reg.No: 090694CO09P02) " Control and Data Planes in Software Defined Data Center Networks: A Scable and Resilient Approach" 2019, Dr. Shashidhar G Koolagudi & Prof. Swapan Bhattacharya
3. Y V Srinivasmurthy (Reg.No: 135067CS13F05) "Content-based Music Information Retrieval (CB-MIR) and its application towards Music Recommender System ", 2019 , Dr. Shashidhar G Koolagudi
4. Apurva Kittur (Reg.No: 155009CS15FV03) " Batch Verification of Digital Signatures in IOT" 2019, Dr. Alwyn Roshan Pais

5. Alok Kumar (Reg.No: 155087CS15F01) "False Data Detection in Wireless Sensor Networks" 2019, Dr. Alwyn Roshan Pais
6. Keerti Shetty (Reg.No: 135024CS13F03) "Computational Methods for Modeling Multistep Reactions and Parameter Inference in Transcriptional Processes" 2019, Dr. Annappa B.

DEPARTMENT OF CHEMISTRY

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded (including those for which viva has been successfully completed):-

1. M.C.S Nayak, Synthesis characterization of polyethersulfone based membranes for waste water treatment.
2. Praveen Mishra, CY 15 F05, Even-D carbon nanostructures for sensing and energy applications

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

UPTO 31ST MARCH 2019:- No. Awarded (including those for which viva has been successfully completed):-31

DURING PERIOD 1ST APRIL 2018 TO 31ST MARCH 2019:-No. Awarded (including those for which viva has been successfully completed):-08

(FOR PERIOD OF REPORT ONLY)

1. Raghavendra M.A.N.S "Synthesis and Performance evaluation of Codes with Good Rank-Distance properties for Wireless Communications and Information Storage Systems", 9th March 2020, Dr. U. Shripathi Acharya.
2. Patil Ashish Anandrao "Organized Approaches to Improve the Performance of Vehicular Networks", 15th November 2019, Dr. N S V Shet.
3. Shahjahan E S "RF MEMS Capacitive Switches for Tunable Microsystems" 12th October 2019, Dr. M. S. Bhat.
4. Prashant K Kharat "Modified QUIC Protocol with Congestion Control forImproved Network Performance" 1st October 2019, Dr. Muralidhar Kulkarni.
5. K Vasudeva Reddy "Low Power Balun LNAs for Narrow-Band and UWB Applications", 18th September 2019, Dr. Prashantha Kumar H.
6. Princy Maria Paul "Compact Multiband Antennas with Polarization Diversity and Wideband Characteristics using Artificial Electromagnetic Structures", 19th July 2019, Dr. Krishnamoorthy K.
7. Chetan L Srinidhi "Pattern Recognition and Machine Learning Framework for Automated Analysis of Retinal Images", 7th June 2019, Dr. Aparna P. and Dr. Jeny Rajan (CSE Dept.).
8. Chandra Shaker B "Algorithms for Super-Resolution and Restoration of Noiseless and Noisy Depth Images", 29th April 2019, Dr. Ramesh Kini M.

DE DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded: 09

1. Harimurugan D "Applications of Charge Simulation Method Based Electric Field Analysis in Power System: Standard-Capacitor EHV-Substation and HV-Double-Circuit-Line" 2nd May 2019, Dr G S Punekar.
2. Vanjari Venkataramana "Enhanced Control of Photovoltaic Power Converters Under Mismatching Conditions"4th July 2019, Dr B. Venkatesa Perumal.
3. Prabhakaran K K "Investigations on Sensor/Sensorless Control of PMSM Drive for Grid Connected and Standalone Applications"10th July 2019, Dr A.Karthikeyan.
4. Vivekanandan S "Design and Analysis of Switched Capacitor Converter Topologies for Lower Power Applications" 19th September 2019, Dr Debashisha Jena & Dr P Parthiban.
5. Remya V K "Design and Control of Low Voltage Restorers Employing Semi-Z-

Source Inverters"14th October 2019, Dr P Parthiban.
6. J Saikrishna Goud "Effective Utilization and Management of Power Supply System for Standalone BTS Load" 23rd October 2019, Dr Kalpana R.
7. Ramu Srikakulapu "Optimized Design of Collector System for Offshore Wind farms and Development of a Hybrid Controller for Single VSC HVDC and Multi Terminal VSC HVDC System" 28th January 2020, Dr Vinatha U.
8. Chethan Raj D "Operation and Control of a Microgrid with Distributed Generation Systems" 28th February 2020, Dr Dattatraya N Gaonkar.
9. Omkar S Powar "Application of Surface Electromyography Based Pattern Recognition for Efficient Control of Upper Limb Prostheses" 7th March 2020, Dr Krishnan CMC.

DEPARTMENT OF INFORMATION TECHNOLOGY

UP TO 31ST MARCH 2019: 19
DURING PERIOD 1ST APRIL 2019 TO 31ST MARCH 2020: 3

1. Shridhar Sanshi, "Mobility Management Protocols for Low Power and Lossy Networks " May 2019, Dr. Jaidhar C D.
2. Shiva Darshan S L, " Windows Malware Detection Techniques using Static and Behaviroul-based Features" November 2019, Dr. Jaidhar C D.
3. Manjunath K Vanahalli, " Efficient Mining of Frequent Colossal Itemsets from High Demensional Data" March 2020, Dr. Nagamma Patil.

DEPARTMENT OF MATHEMATICAL DE & COMPUTATIONAL SCIENCES

Upto 31st March 2019:- 26
During Period 1st April 2019 To 31st March 2020;- 09

Details (For the period of report only):

1. Savitha G, "Restoration, Enhancement and Analysis of Lung Nodular Images for Prompt Detection of Abnormalities", 2020, Dr. Jidesh P, Prof. B R Shankar.
2. B Roopashri Tantri "Novel Estimators of Software Reliability for Finite Failures Category Models",2020, Prof. Murulidhar N.N.
3. Prasanna Lakshmi M, "Algorithms for combinatorial optimization problems in WSN using Graph Theoretic Modelling" 2020, Dr. Pushparaj Shetty D.
4. Sreedeep. C. D, "Iterative Regularization Theory For Nonlinear Ill-Posed Problems", 2019, Prof. Santhosh George.
5. ManjunathVishweshwar Hegde, "Cryptanalysis and Improvement of Dynamic ID Based Remote User Authentication Schemes Using Smart Card", 2019, Dr. R. Madhusudhan.
6. Shashidhara,,"Design of Robust Authentication Protocols for Roaming Service in Glomonet and Mitigation of XSS Attacks in Web Application", 2019, Dr. R. Madhusudhan.
7. Balakrishna Gudla, "Some Results on L(2,1)-coloring and its Related Problems", 2019, Dr. Srinivasa Rao Kola.
8. Prashanthi. K. S., "Radial Basis Functions Based Schemes For Fractional Differential Equations", 2019, Dr. Chandhini. G.
9. Pavan Kumar S., "Squeeze Flow of Viscoplastic Fluids: A Matched Asymptotic Expansions Approach", 2019, Dr. Vishwanath Kadaba Puttanna.

DEPARTMENT OF MECHANICAL ENGINEERING

DETAILS OF PH.DS AWARDED:-

1. Achuthan C Pankaj, "Numerical and Experimental Investigations on Damage Detection in Joints based on Statistical Energy Analysis like Approach", 2019, Dr. S. M. Murigendrappa.

2. Durga prasad C, “Investigation On Elevated Temperature Adhesive Wear Behavior Of Microwave Fused Thermal Spray Tribaloy Composite Coatings”, 2019, Dr. Sharnappa J & Dr. Ramesh M R.
3. Avdooth Ashok Walnuj, “Investigation of Pool Boiling Heat Transfer from Rough Surface and Microchannel Geometry Under Variable Heat Supply”, 2019, Dr. Sathyabhama A.
4. Anil Kumar K. S, “Experimental Investigations On Frictional Stir Welded Joint Of Dissimilar Aluminium Alloys”, 2019, Prof. S.M. Murigendrappa and Dr. Hemantha Kumar.
5. Rakesh K. Rajan, “Effect Of Laser Processing On Surface Characteristics Of Magnesium Based Rare Earth Element Alloys”, 2019, Dr. Srikanth Bontha And Dr. Ramesh M. R.
6. Mahesh. B Davanageri, “Experimental And Numerical Studies On Mechanical And Wear Behavior Of Aged Duplex Stainless Steel”, 2019, Prof.Narendranath s And Prof. Ravikiran Kadoli.
7. Ravindra I Badiger, “An Experimental Investigation And Optimization Of Microwave Hybrid Heating For Joining Of Inconel-625 Alloy”, 2019, Prof.Narendranath S.
8. Sachin B, “Experimental Investigation On Cryogenic Diamond Burnishing Of 17-4ph Stainless Steel Under Sustainable Cooling Environments.”, 2019, Prof.Narendranath S and Dr.Chakradhar D.
9. Sachin Kumar, “Studies On Friction Stir Welding Characteristics Of Aa6061/Sic/Fly Ash Hybrid Metal Matrix Composites”, 2020, Prof.Narendranath S and Dr.Chakradhar D.
10. Santosh, “Experimental And Numerical Studies On The Performance Of Polyethylene -Graphene Based Composite Phase Change Materials For Thermal Energy Storage”, 2019, Dr.Veershetty G and Dr.Arumuga Perumal D.
11. Sreejith B.K, “Effect Of Boundary Layer Trip and Tubercles On Aerodynamic Performance Of e216 Airfoil”, 2019, Dr. Sathyabhama A and Dr. Srinivas Pai P.
12. Rashmi , “Ann Modeling And Optimization Of Power Output From Horizontal Axis Wind Turbine”, 2019, Dr. Sathyabhama A and Dr. Srinivas Pai P.
13. Vasu M, “Investigation On Machinability Characteristics Of En47 Spring Steel Using Optimization Techniques”, 2019, Dr. H Shivananda Nayaka.
14. Gangadhara Rao, “Performance And Emission Characteristics Of Vateria Indica Oil As Alternative Fuel For Petrodiesel In Ci Engine”, 2019, Dr Kumar G N and Dr Marvin A Herbert.
15. Kadam Anil Ramkishan Rao, “Heat Transfer Distribution Of Impinging Methane-Air Premixed Flame Jets”, 2019, Dr Kumar G N.
16. Felix J, “Heat Transfer Studies On Gas Turbine Combustor Liner Cooling”, 2019, Dr Kumar G N and Dr Rajendran R.
17. Banjara Kotresha, “Computational Modelling Of Fluid Flow And Heat Transfer Through Metal Foam And Wire Mesh”, 2019, Dr. N. Gnanasekaran.
18. Mr Hiremath Chandrashekharayya Rachayya, “Studies On Dehumidification Potential Of Clay With Additives And Impregnated With Cacl2 Composite Desiccants”, 2019, Prof.Ravikiran Kadoli.
19. Nitinchand R.Patil, “Characterisation Of Fibre Reinforced Epoxy Matrix Composites Reinforced With Sinterd Bronze And Graphite Fillers”, 2019, Prof.Prasad Krishna.
20. Ramesh Kumar, “Virtual Prototyping Platform For Product Development”, 2019, Prof.Prasad Krishna.
21. Pradeep V Badiger, “Investigations On Characteristics And Performance Of Hard Thin Films Developed By Cathodic Arc Evaporation”, 2019, Ramesh M R.
22. Vinay Vergees, “Studies On End Milling Of Maraging Steel Using Cryogenic Treated And Pvd Coated Cemented

Carbide Tool Under Dry, Wet And Cryogenic Environments", 2019, Ramesh M R.

23. Ramesh babu N, "Development And Characterization Of Al-Si Based Functionally Graded Material Through Directional Solidification", 2020, Ramesh M R.

DEPARTMENT OF MINING ENGINEERING

1. Kumar Dorthi, "Wireless Sensor Networks Based Monitoring of Slope Stability Over Old Underground Coal Workings", May-2019, Dr. K. Ram Chandar.
2. Abhishek Kumar Tripathi, "Investigation of environmental parameters influencing the performance of solar panel and to optimize its performance in dusty environment", July, 2019, Prof. Ch.S.N.Murthy and Dr. M. Aruna

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Up to 31st March 2019:- 51
During period 1st April 2019 to 31st March 2020:- 06
(FOR PERIOD OF REPORT ONLY)

1 Manjunath G. K., "Microstructure and Mechanical Properties of Cast Aluminium-Zinc- Magnesium Alloys Processed by Equal Channel Angular Pressing", 2019, Guide: Dr. Preethma Kumar G. V. & Prof. Udaya Bhat K.

2 Palaksha P. A., "Influence of Austempering and Quenching and Partitioning (Q&P) Heat Treatment on the Mechanical Properties and Wear Behavior of AISI 9255 Steel", 2019, Guide : Dr. Ravishankar K. S.

3 Pavan Pujar, "Solution-based and solution combustion-based processing techniques for metallic and metal oxide thin films for optoelectronic applications", 2019, Guide : Dr. Saumen Mandal &Dr. Dipti Gupta

4 Mohammed Khalifa, "Electrospinning of Nanocomposites from Poly(vinylidene fluoride) and Functional Nanofillers for Various Applications", 2019, Guide: Dr. S. Anandhan .

5 Pranesh Rao K. M., "Assessment of cooling performance of high temperature quenchants for industrial heat treatment", 2019, Guide: K. Narayan Prabhu.

6 Sangamesh,"Development of Sandwich Composites from Natural Materials for Bullet Proofing", 2019 Guide : Dr. Ravishankar K. S.

7. Suarshana Shetty (Dept. of Chemistry), "Corrosion Inhibition Studies of GA9 Magnesium Alloy in Chloride and Sulphate Media", 2019, Guide: Prof. A. Nityananda Shetty and Prof. Jagannatha Nayak.

SCHOOL OF MANAGEMENT

UPTO 31ST MARCH 2019:- No. Awarded (including those for which viva has been successfully completed):- 38

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded (including those for which viva has been successfully completed):- 8
(FOR PERIOD OF REPORT ONLY)

1. Ms. Manju Mahipalan, "Impact of Workplace Spirituality on Work Outcomes: The Mediating Role of Employee Engagement", 29.07.2019, Dr. Sheena.
2. Mr. Rajesh M. Kalli, "Assessing the Impact of Climate Change on Agriculture: Empirical Evidence from A South Indian State", 29.07.2019, Dr. Pradyot Ranjan Jena.
3. Ms. Deepali Mallya M, "Deciphering the Female Psyche: Fragmentation and the Allied Phenomena in Select Literature", 25.10.2019, Dr.Dhishna P.
4. Mr. Sudheer Muhammed K., "Destination Branding in Indian Medical Tourism – An Empirical Study", 19.11.2019, Prof. K. B. Kiran.

5. Mr. Rajesh R. Pai, "A Select Study of Mobile Health Applications in Indian Context", 19.05.2020, Dr. Sreejith A.
6. Ms. Tanupriya, "Mimesis of Sexuality: A Select Literary Study of Autobiographies by Transgender Individuals, 21.05.2020, Dr.Dhishna P.
7. Ms. Haritha P. H, "Assessment of Impact of Investors' Sentiments on Stock Market Volatility and Investment Decision Making of Individual Investors", 27.05.2020, Dr. Rashmi Uchil.
8. Ms. Remya S,"A study on Entrepreneurial Intension Among Nascent Entrepreneurs of Coir Industry in Kerala", 03.06.2020, Prof. K. B. Kiran.

DEPARTMENT OF PHYSICS

UPTO 31ST MARCH 2019:- No. Awarded (including those for which viva has been successfully completed):- 38

DURING PERIOD 1ST APRIL 2019 TO 31st March 2020:- No. Awarded (including those for which viva has been successfully completed):- 8

1. Brian Jeevan Fernandes, Electrical switching characteristics and thermal properties of Tellurium based chalcogenide glassy alloys, 2019, Prof. Udayashankar N K
2. Mrs. Suchitra S M, Synthesis and characterization of graphitic carbon nitride(GCN)(g-C_3N_4) nanostructures using alumina (Al_2O_3)templates, 2019, Prof. Udayashankar N K.
3. Mr. Mahendra K, Synthesis and characterization of semiorganic potassium hydrogen oxalate oxalic acid dihydrate single crystals, 2020, Prof. Udayashankar N K
4. Vallem Sowjanya, Preparation of indium telluride thin films for device applications, 2019, Prof. Kasturi V Bangera.
5. Mr. Bharath S P, Zinc oxide based thin films for sensor application, 2020, Prof. Kasturi V Bangera.
6. Mr. Biswajit Barman, Preparation and properties of mixed metal sulfide thin films for photosensor applications, 2020, Prof. Kasturi V Bangera.
7. Ms. Pranitha Sankar, Multidiagnostic characterization of ultrashort and short pulse laser produced plasma aluminium and tungsten targets, 2019, Prof. H D Shashikala & Prof. Refi Philip.
8. Ms. Bindu K, Synthesis characterization and applications of ferrite nanomaterials and composites, 2019, Dr. H S Nagaraja and Dr. Ajith K. M.

DEPARTMENT OF MINING ENGINEERING

Details of PH.D.s awarded

1. Kumar Dorthi, "Wireless Sensor Networks Based Monitoring of Slope Stability Over Old Underground Coal Workings", May-2019, Dr. K. Ram Chandar
2. Abhishek Kumar Tripathi, "Investigation of environmental parameters influencing the performance of solar panel and to optimize its performance in dusty environment", July, 2019, Prof. Ch.S.N.Murthy and Dr. M. Aruna

10.0 HUMAN RESOURCES

10.1 STAFF POSITION

Teaching StaffNumber	
Professors	78
Associate Professors	71
Assistant Professors (REGULAR)	87
Other staff, A.P.D. & System Manager	02
Contract Faculty Asst. Professor Grade – II	44
	282

Non-Teaching Staff

Administrative Officers	24
Technical supporting staff	57
Non-technical supporting staff	58
	139

THE STAFF

(A) Administrative Staff

Director: (Head of the Institution)

K Uma Maheshwar Rao, Ph.D.

Dy. Director

Ananthanarayana V S, Ph.D.

Dean (Academic)

M B Saidutta, Ph.D. till 30.09.2019
Nityananda Shetty from 01.10.2019

Dean (Planning and Development)

G S Dwarakish, Ph.D. till 31.7.2018
Subhash C Yaragal, Ph.D. from 1.8.2018

Dean (Faculty Welfare)

A H Sequeira, Ph.D. till 15.3.2020
M S Bhat, Ph.D, from 16.3.2020

Dean (Alumni Affairs & Institutional Relations)

K Panduranga Vittal, Ph.D. from 1.9.2018

Associate Deans (PG&R)

Vidya Shetty, Ph.D. from 29.10.2018

Associate Dearns (PG&R)

Ashvini Chaturvedi, Ph.D.
from 26.10.2018.

Dean (Student's Welfare)

Jagannatha Nayak, from 15.10.2018

Dean (Research & Consultancy)

U. Shripathi Acharya, Ph.D.

ACADEMIC STAFF (TEACHING)

Department of Applied Mechanics and Hydraulics
Professors:

A. Vittal Hegde, Ph.D. (Mangalore University)
N. Lakshman, Ph.D., (I.I.Sc., Bangalore)
M.K. Nagaraj, Ph.D.
Subba Rao, Ph.D. (Mangalore University),
G.S. Dwarakish, Ph.D. Anna University)
Mahesh A, Ph.D. (IIT Bombay)
Kiran G. Shirlal, Ph.D. (NITK),
Amba Shetty, Ph.D. (NITK)
from 12.03.2019
P.C. Deka, Ph.D. (I.I.T. Guwahati)
B.M. Doddamani, Ph.D. (NITK)

Associate Professors

K Varija, Ph.D. (IISc. Bangalore)
H.Ramesh, Ph.D. (NITK)
Manu, (Ph.D. NITK)
Nasar T, Ph.D. (IIT, Madras)

Assistant Professors:

K. Subrahmanya, Ph.D. NITK
Pruthviraj U., Ph.D. (NITK)
K. Vadivuchezhian, Ph.D. (IIT Madras)

Debabrata Karmakar, Ph.D., (IIT Kharagpur) 5.5.2015
Mrs. Shwetha Hassan Rangaswamy, Ph.D. (IISc, Bangalore)

Department of Chemical Engineering

Professors:

G. Srinikethan, Ph.D. (I.I.T. Madras)
Gopal Mugeraya, Ph.D. (I.I.Sc. Bangalore) on deputation to NIT Goa as Director from 15.07.2017
M.B. Saidutta, Ph.D. (I.I.T. Bombay)
B. Raj Mohan., Ph.D. (I.I.T., Kharagpur)
K. Vidya Shetty, Ph.D. (NITK)

Associate Professors:

Hari Mahalingam, Ph.D. Singapore HOD
Prasanna B.D., M.E. (Ph.D. NITK)
I Regupathi, Ph.D., (Anna University, Chennai)
P.E. Jagadeeshbabu, Ph.D. (Anna Univ. Chennai)
S. Gangamma, Ph.D. IIT, Bombay
Keyur Raval, Ph.D. (Aachen Den University)
Hari Prasad Dasari, Ph.D. (Korea Institute of Science and Technology, Korea)

Assistant Professors:

Jitendra Pal S., Pursuing Ph.D. at IIT Delhi
D.Ruben Sudhakar, Ph.D. (IIT Madras)
B. Ashraf Ali, Ph.D. (IIT Madras)
Jagannathan T K, Ph.D. (IIT Madras)
Chinta Sarkar Rao, Ph.D. (IIT, Madras)

Contractual

Mahesh Kumar Poddar, Ph.D., IIT Guwahati (Contractual)
Vaishakh Nair, Ph.D. (IIT, Madras)

Department of Civil Engineering

Professors:

R. Shivashankar, Ph.D. (A.I.T. Bangkok)
K.N. Lokesh, Ph.D. (Geology) (Gulbarga University)
M.C. Narasimhan, Ph.D. (IIT Madras)
Katta Venkataramana, Dr.Eng. (Kyoto University, Japan)
A.U. Ravi Shankar, Ph.D (Univ. of Roorkee)
K. Swaminathan. Ph.D. (I.I.T. Bombay)
Varghese George, Ph.D. (I.I.T. Bombay) HOD.
S. Shrihari, Ph.D. (Univ. of Roorkee)
Sitaram Nayak, Ph.D. (I.I.Sc. Bangalore)
Subhas C. Yaragal, Ph.D. (IISc. Bangalore)
K.S. Babunarayan, Ph.D. (NITK)
B.R. Jayalekshmi, Ph.D. (NITK)

Associate Professors:

Sunil B.Malegole, Ph.D. (NITK)
Basavaraj Manu, Ph.D. (IIT, Bombay)
Suresha S N, Ph.D. (NITK)
Arun Kumar Thalla (IIT Rourkee), Ph.D.
Bibuti Bhushan Das, Ph.D., (IIT Bombay)
Gangadhar Mahesh, Ph.D. (Hongkong)
A. S Balu, Ph.D. (IIT Madras)
C.P. Devatha, Ph.D. (IIT Roorkee)

Assistant Professors:

Prashanth M.H., Ph.D. at IISc
Raviraj H. Mulangi, M.E., Ph.D., IISC
C Rajasekaran, (IIT Madras)
Adani Azhoni, Ph.D. (IIT, Delhi)
T Palanisamy, Ph.D.
Sreevalsa kolathayar, Ph.D., IISc, Bangalore

Contractual

Babloo Chaudhary, Ph.D., (Kyoto, Japan)
Anupama Surenjan, Ph.D., (IIT, Madras)
J Vijaya Vengadesh kumar, Ph.D.(IIT, Madras)
Sreekumar M, Ph.D. (IIT, Bombay)
Vinoth S, Ph.D. (Anna University, Chennai)
Mithun Mohan, Ph.D.(IIT Roorkee)
Pavan G S, Ph.D. (IISc, Bangalore)
Sridhar G, Ph.D. (IIT, Madras, &NUS. Singapore (Joint Degree)

Department of Computer Science Engineering

Professors:

K. Chandrasekaran, Ph.D. (J.N.T.U.)
Shanthi Thilagam, Ph.D. (NITK)
Annappa,Ph.D (NITK, Surathkal)

Associate Professors

Vani M., M.Tech. (NITK, Surathkal)
Alwyn Roshan Pais, Ph.D. (NITK)
Shashidhar G Koolagudi, Ph.D.(IIT Kharagpur)
Manu Basavaraju, Ph.D. (IISC, Bangalore)

Assistant Professors:

Saumya A. Hegde,Ph.D. (NITK)
B.R. Chandavarkar, Ph.D. (NITK)
Mahendra Patap Singh, pursuing Ph.D.
Jeny Rajan, Ph.D. (University of Antwerpen, Belgium)
Mohit P. Tahiliani, Ph.D. (NITK)
Basavaraj Talawar, Ph.D. (IISC Bangalore)
M Venkatesan, Ph.D. (VIT University, Vellore)

Contractual

Biswajit Bhowmik, Ph.D. (IIT Guwahati)
Sourav Kumar Pandey, Ph.D. (NIT, Rourkela)

Department of Chemistry

Professors:

A. Nityananda Shetty, Ph.D. (Mangalore Univ.)
A. Vasudeva Adhikari, Ph.D. (Karnatak Univ.)
A. Chitharanjan Hegde, Ph.D. (Mangalore Univ.)
B. Ramachandra Bhat, Ph.D. (Mangalore Univ.)
Krishna Bhat, Ph.D. (Mangalore Univ.)
Arun Mohan Isloor, Ph.D. (Mangalore University)

Associate Professors:

Udaya Kumar D., Ph.D. (NITK, Surathkal)
Darshak R. Bhai Trivedi, Ph.D. (Bhavnagar University)

Assistant Professors:

Sib Sankar Mal, Ph.D. (JUB Germany)
Beneesh P. B., Ph.D. (University of Kerala)
Debashree Chakraborty, Ph.D. (IIT Kanpur)
Saikat Dutta, Ph.D. (University of Iowa, USA)
Vijayendra S Shetti, Ph.D. (IIT, Bombay)
Lakshmi Vellanki, Ph.D. (IIT, Bombay)

Department of Electronics And Communication Engineering

Professors:

S. Sumam David, Ph.D. (I.I.T. Madras)
Muralidhar Kulkarni, Ph.D. (JMI – New Delhi)
M. Shankarnarayan Bhat, Ph.D. (I.I.Sc., Bangalore)
John D'Souza, Ph.D. (I.I.T.Kharagpur)
U. Sripati Acharya, Ph.D., (I.I.Sc., Bangalore) HOD till 16.04.2018
Laxminidhi T., Ph.D. (IIT, Madras) HOD from 17.04.2018
Ashvini Chathurvedi, Ph.D. (MUM Malaysia)
Neelavar Shekar Shet, Ph.D. (NITK)

Associate Professors:

M. Ramesh Kini, Ph.D. NITK
Deepu Vijayasenan, Ph.D. (EPFL, Swizerland)

Assistant Professors:

Rekha S., Ph.D.
Kalpana G. Bhat, M.Tehc. Karnataka University
Aparna P., Ph.D. (NITK)
B. Nagavel, M.Tech.
Krishna Moorthy K., Ph.D. at IIT, Bombay
Prashantha Kumar H, Ph.D. (NITK)
Raghavendra B S, Ph.D. (IISC, Bangalore)
A V Narasimhadhan, Ph.D. (IISc), Bangalore

Pathipati Srihari, Ph.D. (Andhra University)
Shyam Lal, Ph.D. (BIT Ranchi)
Ratnamala Rao, Ph.D. (IIT Madras)
Prabhu K, Ph.D.

Contractual

Sushil kumar Pandey, Ph.D. (IIT, Indore)
Sandeep Kumar, Ph.D. (Indian School of Mines Institute, Dhanbad)
Mandeep Singh, Ph.D. (IIT, Roorkee)
Nikhil K S, Ph.D. (IIT, Madras)

Department of Electrical And Electronics Engineering

Professors:

Udayakumar R.Y., Ph.D. (IIT Bombay) on deputation to MNIT, Jaipur as Director from 08.10.2016
K. Panduranga Vittal, Ph.D. (Mangalore Univ.)
Shubhanga K.N., Ph.D. (IIT, Bombay), HOD
Gururaj S. Punekar, Ph.D. (IIT, Kharagpur)
Venkatesa Perumal, Ph.D. (IIT Delhi)

Associate Professors:

Jora M. Gonda, Ph.D. (NITK)
K. Rajagopal, M.Tech. (I.I.T. Kharagpur)
Vinatha U., Ph.D. (NITK, Surathkal)
K. Manjunatha Sharma, Ph.D. (NITK)
Dattatraya N. Goankar, Ph.D. (IIT, Roorkee)
Debashisha Jena, Ph.D. (NIT Rourkela)
Parthiban, Ph.D. (IIT, Roorkee)

Assistant Professor :

Iddya Raghavendra Rao M.Tech. (Mangalore Univ.)
Nagendrappa H., Ph.D. (Canada)
Tukaram Moger, Ph.D. at IISC, Bangalore
Girisha Navada, M.Tech. (University of Calicut)
Karthikeyan, Ph.D. (NIT, Thiruchirapalli)
R Kalpana S, Ph.D. (IIT, New Delhi)
Y Suresh, Ph.D. (NIT Rourkela)
Krishnan C M C, Ph.D. (Ghent University, Ghent, Belgium)
Shashidhara Mecha Kotian, Ph.D. (NITK, Surathkal)

Contractual

Yashawanth Kashyap, Ph.D. (IIT, Mandi)
B Dastagiri Reddy, Ph.D. (NIT, Tiruchirapalli)
Arun Dominic D, Ph.D.(IIT Roorkee)
Padmavathi L, Ph.D. (IIT Madras)
Vignesh Kumar V, Ph.D. (NIT, Tiruchirapalli)
Ravi Raushan, Ph.D. (IIT (ISM), Dhanbad)
Dharavath Kishan, Ph.D. ((NIT, Tiruchirapalli)
Md Waseem Ahmad, Ph.D. (IIT, Kanpur)
Prajof P, Ph.D. (IIT, Bambay)

School of Management

Professors

A.H. Sequeira, Ph.D., (Mysore University)
K.B.Kiran, Ph.D. (Mangalore Univ.)
Shashikantha K., Ph.D. (University of Hyderabad)

Associate Professors:

S. Pavan Kumar, Ph.D., (IIT Kharagpur) HOD from 02.09.2018.
Sheena, Ph.D., (University of Calicut)
Ritanjali Majhi, Ph.D.
Rajesh Acharya H, Ph.D., (University of Hyderabad)
Dhishna P, Ph.D., (University of Pandichery)
Pradyot Ranjan Jena, Ph.D. (IIT Kanpur)

Assistant Professors:

Bijuna C. Mohan, Ph.D. (NITK, Surathkal)
Rashmi Uchil, Ph.D. (NITK, Surathkal)
Suprabha K. R, Ph.D., (VTU)
Gopalakrishna B V, Ph.D., (University of Mysore)
Sreejith A, Ph.D. (IIT, New Delhi)
Savita Bhat, Ph.D. (IIT, Bombay)

otracrContractual
Rofin T M, Ph.D. (IIT, Kharagpur)

Department of Information Technology

Professors:

Ananthanarayana V.S., Ph.D. (I.I.Sc. Bangalore)
G. Ram Mohan Reddy, Ph.D. (Edinburgh, U.K.) HOD .

Associate Professors:

JaidharC D, Ph.D. (NIT, Tiruchirapalli)

Assistant Professors:

Dinesh Naik, M.Tech. (VTU, Belgaum)
Geetha V., Ph.D. (NITK)
Biju R. Mohan, Ph.D. NITK
Sowmya Kamath S., Ph.D. (NITK)
Nagamma Patil, Ph.D. (IIT, Roorkee)
Anand Kumar M, Ph.D.
Contractual
Kiran M, Ph.D. (NITK, Surathkal)
Bhawana Rudra, Ph.D. (IIT Allahabad)

Department of Mathematical & Computational Sciences

Professors:

A. Kandasamy, Ph.D. (I.I.T. Bombay)
Suresh M. Hegde, Ph.D. (Delhi Univ.)
Santhosh George, Ph.D. (Goa University)
Murulidhar N.N., Ph.D. (I.I.T. Bombay)
Shyam Srinivas Kamath, Ph.D. (Karnataka Univ.)
B.R. Shankar, Ph.D. (I.I.Sc., Bangalore) HOD.

Associate Professors:

Sujatha D. Achar, M.Sc. (Karnatak Univ.)
R. Madhusudhan., Ph.D. (IIT, Roorkee)
P. Sam Johnson, Ph.D. (Alagappa University)
D. Pushparaj Shetty, Ph.D. (IIT Delhi)
V. Murugan, Ph.D. (IIT, Madras)
Chandhini G, Ph.D. (IIT, Madras)

Assistant Professors:

Vivek Sinha, Ph.D (IIT, Bombay)
Jidesh P., Ph.D. (NITK)
Satyanarayana Engu, Ph.D., (IIT Madras)
Vishwanath Kadaba Puttanna, Ph.D., (NITK)
Kedarnath Senapati, Ph.D. (Contractual)
Srinivasa Rao Kola, Ph.D. (IIT, Kharagpur)
A Senthil Thilak, Ph.D. (NIT, Tiruchirappalli)
Jothi Ramalingam, Ph.D. (Queensland University of Technology, Brisbane, Australia)
Contractual
Falguni Roy, Ph.D. (IIT, Kharagpur)

Department of Mechanical Engineering

Professors:

T.P. Ashok Babu, Ph.D. (I.I.T. Delhi)
G.C. Mohan Kumar, Ph.D. (IIT, Chennai)
H. Suresh Hebbar, Ph.D. (I.I.T. Delhi)
Prasad Krishna, Ph.D., (Univ. of Michigan, Ann Arbor, USA)
Satyabodh M Kulkarni, Ph.D. (I.I.Sc., Bangalore)
Gangadharan K.V., Ph.D. (I.I.T., Madras)
Ravi Kiran Kadoli, Ph.D. (IIT, Madras)
Vijay Desai, M.E. (Ph.D. NITK)
Narendranath S., Ph.D. (IIT, Kharagpur)
Shrikantha S Rao, Ph.D. (NITK), HOD
S.M. Murigendrappa, Ph.D. (I.I.T., Bombay)

Associate professors

Mervin A. Herbert, Ph.D. (I.I.T., Kharagpur)
Kumar G.N., Ph.D. (IIT, Delhi)
Subhaschandra Kattimani, Ph.D. (IIT, Kharagpur)
Jeyaraj P, Ph.D., (IIT Madras)
Hemantha Kumar, Ph.D., (IIT, Madras)
Ramesh M.R, Ph.D., (IIT, Roorkee)
Sathyabhama A., Ph.D., (NITK)
Srikamath Bontha, Ph.D. (Wright State)
Arun M, Ph.D. (University of Greenwich, London, UK)

Guruprasad K.R., Ph.D. (I.I.Sc., Bangalore)
Shivananda Nayak H., Ph.D. (IIT Roorkee)
Veersetty Gumtapure, Ph.D. (IIT, Madras)
Navin Karanth P., Ph.D. (NITK)
Anish S, Ph.D. (IIT, Madras)
Sharnappa Joladarashi, Ph.D.

Assistant Professors

Vasudeva M., Ph.D. (I.I.T. Bombay)
Sudhakar Jambagi, M.Tech. (Persuing Ph.D. at IIT Kharagpur)
Ajay Kumar Yadav, Ph.D. (I.I.T. Kharagpur)
Mrityunjay R. Doddamani, Ph.D. (NITK, Surathkal)
N. Gnanasekaran, Ph.D. (IIT, Madras)
Arumuga Perumal D, Ph.D. ((IIT Guwahati)
Somasekhara Rao Todeti, Ph.D., (IISc Bangalore)
Ranjith M., Ph.D.
Poornesh Kumar Koorata, Ph.D.

Contractual

Saurabh Chandraker, Ph.D. (NIT, Rourkela)
Parthasarathy P, Ph.E. (Karlsruhe Institute of Technology, Germany)
Arun Kumar Shettigar, Ph.D. (NITK)
Mruthyunjaya Swamy K B, Ph.D.(IIT, Kharagpur)
Pramod K, Ph.D. (IIT, Bombay)
Ranjeet Kumar Sahu, Ph.D. (IIT, Madras)
A S S Balan, Ph.D. (IIT, Madras)
P S Suvin, Ph.D. (IISc., Bangalore)
Kyati Verma, Ph.D. (IIT, Delhi)

Department of Mining Engineering

Professors:

V. Rama Sastry, Ph.D. (B.H.U. Varanasi)
C.H. Suryanarayana Murthy, Ph.D. (IIT Kharagpur)
M. Govinda Raj, Ph.D. (Mangalore University)
Harsha Vardhan, Ph.D. (Indian School of Mines Dhanbad)

Associate Professor:

M. Aruna, Ph.D. (University of Dhanbad)
K. Ramachander, Ph.D. (NITK) HOD,

Assistant Professor:

Anup Kumar Tripathi, Ph.D.
Bijay Mihir Kunar, Ph.D. (IIT, Kharagpur)
Sandi Kumar Reddy, Ph.D. (NITK)

Department Of Metallurgical & Materials Engineering

Professors:

K. Narayana Prabhu, Ph.D. (Mangalore Univ.)
Jagannatha Nayak, Ph.D. (NITK)
Udaya Bhat, Ph.D. (I.I.Sc., Bangalore)
Anandan Srinivasan, Ph.D. (I.I.T., Kharagpur) HOD

Associate Professor:

Kumkum Banerjee, Ph.D. (IIT Kharagpur)
Ravishankar K.S., Ph.D. (NITK)
Mohammad Rizwanur Rahman, Ph.D., (Keio University, Japan)
Subray R. Hegde, Ph.D. (University of Canada)
Preetham Kumar G V, Ph.D. (IIT, Madras)

Assistant Professor:

Shashi Bhushan Arya, Ph.D. (IIT, Bombay)
Saumen Mandal, Ph.D. (IIT, Kanpur)
Rajasekaran B, Ph.D.

Contractual

Selvakumar Govindarajan, Ph.D. (IISc, Bangalore)
Sumanth Govindarajan, Ph.D. IISc, Bangalore

Department of Physics

Professors:

Kasturi V Bangera, Ph.D. (Mangalore Univ.)
H.D. Shashikala Ph.D (Osmania Univ.)

Udayashankar N.K., Ph.D. (I.I.Sc. Bangalore)
M.N. Satyanarayan, Ph.D. (I.I.Sc., Bangalore) HOD till 10.08.2018.

Associate Professor:

Nagaraj H.S., Ph.D. (Mangalore University), HOD, from 11.08.2018
Ajith K. Madam, Ph.D. (University of Hyderabad)

Assistant Professors:

Partha Pratim Das, Ph.D. (University of Cineinnati Elec Engg.)
Deepak Vaid, Ph.D. (USA)
T. K. Shajahan, Ph.D. (IISC, Bangalore)
Kartick Tarafder, Ph.D. (Jadavpur University)
Contratual
Sreenath V, Ph.D. (IIT, Madras)

ADMINISTRATIVE AND OTHER STAFF

Registrar:

Ravindranath K., M.A. (Mangalore University)

Joint Registrar:

Ram Mohan Y, M.Com. (Mysore), LL.B. (Mangalore University)

Assistant Registrars

Kamlabh Kumar Singh, (M.Sc., M.S., MBA)
Soumen Karmakar, (MBA)
Bansod Pritam Ramesh, (M.Com, MBA)
Gaurav Chowdhury, (MBA)
Priyanka Dattanand Amadalli, (M.Sc.)

Resident Engineer i/c:

Mohammad Firoz Khaza .

Resident Medical Officers:

Dr. B. Srimathi, M.B.B.S. (Mysore Univ.)

Medical Officer:

Dr. M.L. Balabhaskara

Professor Incharge Hostel Affairs:

A C Hegde, Ph.D.

NITK ENGG. COY N.C.C.

Officer Commanding:

Col. MG HS Rajan

Associated NCC Officer Incharge (ANO):

P Sam Johnson, Ph.D.
Shivananda Nayak, Ph.D.

Professor Incharge (Security)

Rajesh Acharya, Ph.D. From 15.06.2018

Security Officer:

Ramprasad Bhat

Chief Vigilance Officer:

A. Kandasamy, Ph.D.

Central Public Information Officer (CPIO):

Soumen Karmakar, Asst.Registrar (Admin)

OTHER SECTIONS

Career Development Centre Professor:

Vijay Desai, Ph.D.

Industry Institute Partnership Cell Professor I/c.:

Prasanna B.D., Ph.D. till 10.11.2019
Subray R Hegde, Ph.D. from 11.11.2019

SC/ST Cell

Veershetty Gumpature, from 15.06.2018

OBC Cell

Annappa, Ph.D.

Assistant Physical Director (Sr. Scale):

A. Shivaram, M.P.Ed. (Mangalore Univ.) (I/c. Physical Director)

SAS Officer:
Hem Prasad Nath, Ph.D. (Nagpur University)
Manoj Kumar, Ph.D. (Techno Global University)

Librarian:
Mallikarjuna Agadi, Ph.D. (Gulbarga University).

Asst. Librarian

Anasuya Chakari, M.A. M.Lib.Sc. (Karnataka University) Librarian Incharge

Iranna M Shettar (M.Lisc. M. Phil)

Central Computer Centre Chairman / System Manager:

S S Kamath, Ph.D.

System Manager

P G Mohanan, M.Tech. (Cochin University)

Senior Scientific Officer:

Vijayakumar Ghode, M.Tech.

NITK - Science & Technology Entrepreneurs' Park

OSD :-

Venkatesa Perumal, Ph.D. from 30.8.2019

R&D Centre on Roofing Tiles
Faculty incharge – Dean (R&C)

Centre for Continuing Education Chairman

Arun Kumar Isloor, Ph.D.

Dakshina Kannada Nirmithi Kendra Cordinator:

K.S Babu Narayan, Ph.D.

Project Manager:

Kalbavi Rajendra Rao, B.E. (Mangalore Univ.)

NON-ACADEMIC STAFF (NON-TEACHING) as on 31.3.2020

Sl. No	Name of the Posts	In Position
1	Registrar	1
2	Librarian	1
3	Joint Registrar	1
4	Asst. Registrar (Admin)	1
5	Asst.Registrar (Accounts)	1
6	Asst.Registrar (Academic)	2
7	Asst.Registrar (Purchase)	1
8	Assistant Librarian	2
9	Technical Officer	8
10	SAS Officer	2
11	Senior Scientific Officer	1
12	Medical Officer	2
13	Executive Engineer	1
14	Senior Superintendent	2
15	Superintendent (SG-1)	1
16	Private Secretary	1
17	Assistant (SG -1)	13
18	Assistant (SG –II)	16
19	Senior Assistant	6
20	Stenographer (SG-1)	4
21	Assistant Engineer (SG-II)	5
22	Senior Technical Assistant	3
23	Technical Assistant	1
24	Technical Asst. (SG-1)	1
25	Assistant Engineer (SG-1)	14
26	Technical Assistant (SG-II)	4
27	Technician (SG-I)	8
28	Technician (SG-II)	4
29	Technician	1
30	Office Attendant (SG-I)	4
31	Lab attendant (SG-I)	6
32	Office Attendant (SG-II)	10
33	Lab Attendant (SG-II)	6
34	Senior Office Attendant	1
35	Lab Attendant	2
36	Office Attendant	2
	Total	**139**

11.0 FACILITIES/AMENITIES

11.1 Hostels

The Institute reopened on 17-07-2019 as per Academic Calendar for the year 2019-2020.

There are 11 messes operating in various hostel blocks to cater the needs of inmates. Out of which one vegetarian and one non-vegetarian messes are running in girl's hostel and 5 vegetarian messes and four non-vegetarian messes are running in boy's hostel. All the messes are provided with necessary infrastructure to cater to the different food habits of the students drawn from various parts of the country.

Total number of messes

All messes are managed by Hostel Administrative, with active participation of the Student mess managers for preparation of the menu and other issues. Monthly mess bill accounts were audited by verifying the mess cards, stock sheets, purchase registers, mess membership issue register, mess bill calculation registers, petty cash book with vouchers and other records connected with monthly mess bill. Rationalization method is adopted to avoid the rate difference problem of various messes.

Total mess membership varies in every month. Out of the 11 messes Vindhya (III Hostel), Satpura (IV Hostel) mess, Nilgiri (V Hostel) mess, Thrishul (VIII Hostel) mess, Pushpagiri (PG Hostel) mess, Mega Hostel Mess (Chaitanya) and Girls hostel messes are managed by the contractors.

SL.No.	Name of the Mess	Strength
1	Karavali (I Block-Veg)	201
2	Aravali (II Block- Non-Veg))	364
3	Vindhya (III Block- Non Veg-Outsource)	457
4	Satpura (IV Block -Non Veg-Outsource)	441
5	Nilgiri (V Block -Non Veg-Outsource)	436
6	Pushpagiri (PG Block – Veg -Outsource)	455
7	Sahyadri (VII Block-Veg)	291
8	Thrishul (VIII Block Mess –Veg-Outsource)	441
9	Mega Block Mess (Veg-Outsource)	608
10	GH I block Mess ,Ground Floor (Outsource)	557
11	GH II block Mess , First Floor (Outsource)	432

Crescendo Committee

Crescendo Committee is managed by a separate elected student's committee. The Crescendo has organized AURORA, COLISEUM 2020 during October 2019 and March 6th to 15th, 2020.

Phoenix committee; - The Phoenix Committee formed by election, looks after the sports activities of the residents of the hostels and provides indoor game facilities. The recreation committee organized Fresher's Cup, flood lights Tournament, during October 2019 and February 2020.

Overall Crescendo and Phoenix committee have done their job in a commendable manner. The Cable TV facility existing in the campus has been extended to all the hostels. All the

Hostel Rooms (Boys and Girls) have connected with Internet facilities.

Task Force

Task Force is a platform for students who are interested in administrative work at NITK Surathkal. It has been instituted in NITK Hostel Administration to serve the well-being of all students.

Mess Concession

Mess Concession is offered to students (Hostellers), who need financial assistance to continue their studies in the Institute during Odd and Even semester. The fund raised by contribution from the hostellers i.e `10/- per semester along with hostel mess fees. The concessions are granted based on the information furnished by the individual applicants in the prescribed applications. The mess concession grantee must be regular in attendance and show good performance in academics. The amount granted above will be credited to the mess bill account of the respective student, and is not be paid cash.

Several festivals like Holi, Diwali and Ganesh Chaturthi celebrated by hostellers, through the fund is raised by contribution i.e ` 40/- from the hostellers.

During the year under report, Medical Relief to the tune of ` **3,03,373/-** has been sanctioned to students of the hostel blocks as per the recommendation of the Block Warden and Institute Resident Medical Officers, for their hospitalization in nearby Surathkal/Mangalore hospitals for treatment. This amount is met out of the fund created under "Self Sustaining Medicare Scheme" which is created by collecting ` 35/- per student per semester.

Students advisory Committee is formed in each block for effective- interaction between the Wardens and students. To improve the accounting process, computerization of accounts in the hostel has already been initiated. To receive feedbacks related to messes and maintenance issues, online complaint registration system is initiated. All the accounts of the hostels are duly audited by a Charted Accountant.

Laundry Facility established in NITK Surahkal Hostels, Mega Tower II (Himalaya) for benefit of the students. Total Grant ` 24 Lakh for the Project entitled "Laundry Facility in the Hostels of NITK Surathkal", granted by Karnataka State Minerals Corporation Limited, Bengaluru.

Prof. A. Chitharanjan Hegde is working as a Professor in-charge Hostel Affairs NITK Hostels.

Table 1 MESS BILL DETAILS FROM APRIL 2019 TO MARCH 2020

Month									
Sl. No.	**Mess**	**April 2019**		**July-August 2019**		**September 2019**		**October 2019**	
		Per month	**Per day**	**Per month**	**Per day**	**Per month**	**Per day**	**Per month**	**Per day**
1	Karavali (I BLOCK)	2966.00	98.87	4679.00	116.98	3500.00	116.67	3583.00	115.58
2	Aravali (II BLOCK)	2966.00	98.87	4679.00	116.98	3500.00	116.67	3583.00	115.58
3	Vindhya (III BLOCK) (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
4	Satpura (IV BLOCK - N.V.)(OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
5	Nilgiri (V BLOCK -N V) (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
6	Sahyadri (VII BLOCK)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
7	Thrishul (VIII BLOCK) (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
8	Pushpagiri(P.G BLOCK) (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
9	MEGA BLOCK (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
10	G.H BLOCK MESS I (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58
11	G.H BLOCK MESS II (OS)	3263.00	98.88	5498.00	116.98	3500.00	116.67	3583.00	115.58

Month									
Sl. No.	**Mess**	**Nov to Dec. 2019**		**January 2020**		**February 2020**		**March 2020 (18days)**	
		Per month	**Per day**	**Per month**	**Per day**	**Per month**	**Per day**	**Per month**	**Per day**
1	Karavali (I BLOCK)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17
2	Aravali (II BLOCK)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17
3	Vindhya (III BLOCK) (OS)	3511.00	117.03	4403.00	119.00	3398.00	117.17	2037.00	113.17
4	Satpura (IV BLOCK - N.V.)(OS)	3511.00	117.03	4403.00	119.00	3398.00	117.17	2037.00	113.17
5	Nilgiri (V BLOCK -N V) (OS)	3511.00	117.03	4403.00	119.00	3398.00	117.17	2037.00	113.17
6	Sahyadri (VII BLOCK)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17
7	Thrishul (VIII BLOCK) (OS)	3511.00	117.03	4403.00	119.00	3398.00	117.17	2037.00	113.17
8	Pushpagiri(P.G BLOCK) (OS)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17
9	MEGA BLOCK (OS)	3511.00	117.03	4403.00	119.00	3398.00	117.17	2037.00	113.17
10	G.H BLOCK MESS I (OS)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17
11	G.H BLOCK MESS II (OS)	4799.00	117.05	4403.00	119.00	3398.00	117.17	2037.00	113.17

Presently, the following faculty members are rendering their services as wardens in different Hostel Blocks as mentioned against their names:

A Chitharanjan Hegde,Ph.D.	Professor in-charge Hostel Affairs
Harsha Vardhan, Ph.D.	Warden (Finance)
S Pavan Kumar, Ph.D.	Warden, Karavali (I Hostel)
Gopalakrishna B. V, Ph.D.	Warden, Aravali (II Hostel)
P. Jeyaraj, Ph.D.	Warden, Vindhya (III Hostel)
Ramesh M. R, Ph.D.	Warden, Satpur (IV Hostel)
Sharanappa Joladarashi, Ph.D.	Warden, Nilgiri (V Hostel)
Debabrata Karmakar, Ph.D.	Warden, Pushpagiri(PG Hostel)
Saumen Mondal, Ph.D.	Warden, Sahyadri(VII Hostel)
A. V Narasimhadhan, Ph.D.	Warden, Trishul (VIII Hostel)
Kiran M, Ph.D.	Warden, Trishul (VIII Hostel)
N. Gnanasekaran, Ph.D.	Warden, Everest (Mega Tower I)
Ajay Kumar Yadav Ph.D.	Warden, Everest (Mega Tower I)
Pushparaj Shetty D, Ph.D.	Warden, Everest (Mega Tower I)
Shashi Bhushan Arya, Ph.D.	Warden, Himalaya (Mega Tower II)
Mohammad Rizwanur Rahman, Ph.D.	Warden, Himalaya (Mega Tower II)
Darshak R Trivedi, Ph.D.	Warden, Kailash (Mega Tower III)
Shyam Lal, Ph.D.	Warden, Kailash (Mega Tower III)
(Mrs.) Suprabha K R., Ph.D.	Warden, Ganga & Netravathi (GHI & V)
(Mrs.) Savita Bhat, Ph.D.	Warden, Yamuna (GH III Hostel)
(Ms) Debashree Chakraborty, Ph.D.	Warden,Yamuna (GH III Hostel)
(Ms) Chandhini G, Ph.D.	Warden, haravathi (GH- IV)
Paresh Chandra Deka, Ph.D.	Warden, Mess Quality Control
Debashisha Jena, Ph.D.	Warden, Out-reach & Extra Curricular Activities
Dr. Manoj	Students' Welfare

All students including foreign students are accommodated in hostels as per the following details:

Total number of boy's hostel = 12
Total number of girl's hostel = 04
Total number of Rooms for boys = 893
Total number of rooms for girls = 750

Sl. No.	**Block**	**No. of Students**	**No. of Rooms usable**	**Total Capacity**
1	Karavali (I Hostel)	229	76	84
2	Aravali (II Hostel	236	79	84
3	Vindhya (III Hostel)	262	131	132
4	Satpura (IV Hostel)	264	132	132
5	Nilgiri (V Hostel)	250	250	256
6	Pushpagiri (PG Hostel)	464	150	150
8	PG New Hostel	221	250	250
7	Sahyadri (VII Hostel)	410	157	162
8	Trishul (VIII Hostel	299	160	162
9	Everest (Mega Tower- I)	483	503	504
10	Himalaya (Mega Tower- II)	496	502	504
11	Kailash (Mega Tower- III)	498	503	504
12	Ganga (GH 1st Hostel)	61	33	34
13	Yamuna (GH 3rd Hostel)	408	136	153
14	Sharavathi (GH 4th Hostel)	302	330	333
15	Netravathi (GH 5th Hostel)	250	251	258
	Total	**5133 (B- 4112, G- 1021)**		

11.2 CENTRAL COMPUTER CENTER

CCC has contributed in designing, building and maintaining an IT infrastructure for the Institute adequate to the academic needs, by providing quality IT services to support teaching, learning, research and innovations. CCC maintains the campus network backbone connectivity and internet connections on 24x7 basis. The CCC occupies the building opposite to the Silver Jubilee Auditorium. CCC was established in 1995 as a service providing/supporting facility that augments to the computing facilities in the teaching departments.

CCC is currently headed by Dr Ramesh Kini (Dept. of ECE). CCC has the following permanent staff associated to it. One Systems Manager, One Senior Scientific Officer, Two Technical Officers, Two Assistant Engineers (SG1), One Technician (SGII) and One Junior Assistant. CCC also has an Office Clerk, 2 Helpers, One Sweeper and One House Keeper working on contract basis.

Chairman, CCC seeks the guidance of the CCA Committee in important decisions.

NITK has a Campus wide LAN reaching academic buildings, residences and hostel rooms through wired and wireless networks. The campus backbone services are provided with about 20 kms of 12 core OFC using 1 Gbps and 10 Gbps backbone to the different buildings and broad band to the residences. Departments, Residences (through the broadband), Directorate (and administrative net), Guest houses and Hostels are individually connected to the core switch. The hostel networks are integrated into the academic network of NITK sharing the Internet bandwidth of the Institute.
The first stage of the campus network was done in 1999 and the second stage of expansion was done in 2006 with the TEQIP funds. The Third Stage including Core Network Expansion and the Campus WiFi is completed in 2016 at a total cost of about Rs 6.78 crores. The expanded network including the Core Switches, Firewall, Backbone switches and the Campus Wi-Fi equipments are under warranty and maintenance of BSNL for 5 years.

The Wi-Fi network is provided as an extension of the wired networks in the different buildings. The WiFi expansion Phase 1 was carried out with 744 Ruckus R500 Indoor access points, 40 Ruckus T300 Outdoor access points, 5 Ruckus H500 wall switches, 89 Netgear 24 port 10/100/1000Mbps PoE switch with 4 SFP ports and other active and passive network components. Subsequent WiFi expansion (Phase 2) to the new CSE building and LHC-C were carried out with 97 Ruckus R510 Indoor Access Points, 4 Ruckus T300 Outdoor Access Points and 11 PoE switches.

NITK has 5Gbps Internet bandwidth - 2Gbps from National Knowledge Network and 4 Gbps from BSNL. The total cost (recurring) for the 4Gbps bandwidth and broadband facility to the campus is Rs.82,46,000/-

The NITK Data centre housed in the CCC Ground Floor acts as an integration hub of OFC/backbone. It houses Internet connections to BSNL & NKN, associated networking equipments and sufficient hardware to handle the critical backbone network services.

Main servers are connected to the data centre network. Critical services are accessible from inside and outside the network. CCC Uses Virtualisation with Blade Servers with VMWare, Dell Servers with Proxmox virtualisation environment / Ubuntu System containerisation environment.

NITK Website updates are entrusted with the CCC apart from the webserver maintenance. The domains of NITK

(*nitk.ac.in* and *nitk.edu.in*) are also controlled by CCC.

CCC has coordinated the upgrade of Matlab license based on Total Academic Head Count. National Institute of Technology Karnataka Surathkal now offers a campus-wide license to MATLAB, Simulink, and companion products. All faculty, researchers, and students are eligible to download and install these products on their university computers as well as their personally-owned computers.

Apart from these, the Ground Floor of CCC houses (i) The HPC cluster being installed and commissioned and (ii) The 150 Node Skill Development Centre established by the NITK Alumni. The first floor hall of CCC with about 90 Desktop computers is available for general purpose computing & browsing. The computers of CCC are used to support First year Computational Practice Labs, General Purpose Learning & Internet access, On-Line tests (Training & Placement) & various co-curricular and other student activities.

The CCC Ground floor will house the new Data Centre where the server space will be provided for the entire Institute. The Skill Development Centre is moved to the second floor of CCC.

The network infrastructure facility management of NITK is outsourced. Comprehensive onsite AMC is available for the Network switches. There is a helpdesk number 0824 2473085. There is also a rate contract with the firm to facilitate any immediate need of network alterations within a limit. The process of identifying the new Facility Manager is underway.

The facility has a 200KVA Diesel generator that was established in 1994 and two 20KVA, one 15 KVA online UPS systems and one 10 KVA UPS, procured later for providing backup power during the changeover. One 15 KVA UPS systems provide the power backup to the CCC LAN and one 5 KVA Online UPS. This is being reassessed to accommodate the needs of the HPC Cluster, Skill Developed Centre and the New devices of the Data Centre.

Infrastructure Development

- Expansion to the Network and Campus WiFi Phase 1 is completed in 2016 at a total cost of about Rs 6.78 crores. The Phase 2 is completed at a total cost of Rs 1.1 crores.
- The Wi-Fi network is provided as an extension of the wired networks in the different buildings. The WiFi expansion is carried out with 744 Ruckus R500 Indoor access points, 40 Ruckus T300 Outdoor access points, 5 Ruckus H500 wall switches, 89 Netgear 24 port 10/100/1000Mbps PoE switch with 4 SFP ports and other active and passive network components.
- For General purpose Internet access, to meet the demands of the users, an additional bandwidth of 1 Gbps is procured from BSNL at an annual cost of Rs 82.46 lakhs.
- Data Centre is upgraded with the following equipments

a) Virtual Cluster Switch : This consists of two Brocade VDX 8770-8 (each with 48x 10G SFP+, 48 x 10G copper and 12x 40G QSFP) and one Brocade VDX 6740T-56-1G-F server farm switch
b) 23 Nos. of Brocade ICX7250-48-2X10G and 8 Nos. of Brocade ICX7250-24-2X10G as building backbones with 10G uplinks to the core switch
c) Two Nos. of Sophos XG750 firewalls in HA mode with VPN Facility.
d) Campus Wi-Fi Controller Ruckus SmartZone 100

The expanded network including the Core Switches, Firewall, Backbone switches and the Campus Wi-Fi equipments are under warranty and maintenance of BSNL for 5 years.

An HPC cluster is installed in the CCC Premises. This is connected to the core network and available to the entire Campus Network.

Notable Achievements during the year

Webservers Procurement and launching the New Website Upgrading the servers

Additions to the Building Infrastructure

i. Relocation of First Year Lan (Skill development) to the second floor.
ii. Freeing up of ground floor for the Data Centre

List of Laboratories in the Department

1. CCC LAN with 90 Desktops
2. Skill Development Centre with 150 thin clients supported by a Server for Virtual Desktop
3. HPC Cluster made available to all
4. General Purpose Servers in the Data Centre and Virtual Servers on demand.
5. Matlab TAH based Licensing for the Campus.

Extra and Co-curricular Events held in CCC

1. Regular use of the lab for placement tests
2. Students club activities
3. Nutanix Training
4. Deep Root Linux delivered expert lecture on Foss & Liberated Software

IEEE CONECCT 2020 paper: Authors: H. L. Praveen Raj, Mohit P. Tahiliani, P. G. Mohanan and Shyam S.Kamath
Title : Enhancing QoS in a University Network by using Containerized Generic Cache

11.3 LIBRARY

The Institute has a modern Central Library and continues to offer automated library services to its clientele. This Library functions as an important and vital component of the Institute information systems. Located centrally in the main building area of the Campus and it can accommodate more than 500 students/users at a time. The collection of books is 135289 including Book-Bank books, 8193 online e-Books subscribes 249 print journals for all the disciplines and access to 12104 online Journals and 23 databases (Full text and bibliographic).The total area is 2758.56sq.meters including the extended floors as an additional space for reading hall. The Central Library has received "Highest User Award for IEL online (IEE Explore)" in 2015 amongst INDEST-AICTE Consortium Level 2 member's category
Library space and ambience, timings and usage, availability of a qualified librarian and other staff, library automation, online access, networking, etc

Carpet area of library (in m2)	2758.56sqm.
Reading space (in m2)	1800 sqm.
Number of seats in reading space	500
Number of users (issue/return/renewal book) per day	500
Number of users (reading space) per day	700
Timings: During working day, weekend, and vacation	Monday to Saturday 8.00 a.m. to 12.00 midnight Sunday: 8.00 a.m.to 4.00 p.m. Vacation: 09:00 a.m. to 6:00 p.m. General Holidays: 9.00 a.m. to 12.00 noon
Number of library staff	12(PermanentStaff) 15(TemporaryStaff 5 (Trainees)
Number of library staff with degree in Library	10
Management Computerization for search, indexing, issue/return records Bar coding used	YES

1. Genesis and Growth:

NITK Central Library established in the year 1960 is provided with modern facilities and offers automated library services to its clientele comprising of about 6000 users namely undergraduate and postgraduate students, research scholars, faculty members and supporting staff of various departments of the institute. NITK library also gives the facility of institution membership to educational institutes and industries located in and around Mangalore. This Library is located in an independent building with a carpet area of 2759 sq meters in the centre of the Campus and it can accommodate more than 500 students/users at a time. At present, the library has a collection of around 1,35289 books besides subscribing to around 249 National and International Print Journals and 12104 eJournals (Including Full-text Databases)

2. Infrastructure:

The Central Library has Wi-Fi connectivity with more 25 personal computers in Digital Reading Room Section. The Library day-to-day operations are automated and issue and return of all the books are done through computers. The computer terminals provided at the counter near entrance and can be used to gain information regarding status of any document and other particulars of any book/collection. The Library activities have been computerized using the Koha software. A bar coded system of issue and returning books is currently in use.

Library Automation Programme:

The Library Automation Programme is completed. The details of books available in this Library are stored in the computer. The information about the document can be retrieved in the Library. User can search the book by Author, Title, and Call Nos. or by part of the title and subject. Circulation of books is computerized and circulation is done by BARCODE System. At present 12 terminals are on use for Students and Staff. To access the information, we are using Koha Software Version . Up-to-date information about Books, Periodicals, and Back Volumes of periodicals are available on OPAC in the computer. All computers are under LAN System.

On-line Services:

Library is a member of "eShodhSindhu: Library Consortium for Higher Education Institutes" (MHRD). It provides full text resources like IEL online, Science Direct, Springer Link, Indian Standards of all branches of Engineering, Engineering index etc.

Library is a member of NIT – Consortium. It facilitate subscription to the full text resources like Springer, Taylor & Francis, etc.

Digital Library:

A separate "Digital Library" (Digital Reading Room) unit has been established under funding from TEQIP Phase-I with resources being shared with other NIT's, IIT's and industries. The Digital Reading Roomis exclusively used for the online access of eJournals and other eResources Subscribed by the institute and provided through consortiums.

Some of the services available in the Digital Library are:

- Collection and Development of Library materials in Digital Form.
- Books search facility using Web Online Public Access Catalogue (WebOPAC).
- Online eJournal Access through various consortiums.
- Technical reports of Bureau of Indian Standard (BIS) in Digital Form.
- Patent Database Search facility.
- Resource sharing with other premier Institute Libraries (IITs NITs DELNET, etc.).

- ❖ Suitable infrastructures to use the digital information.
- ❖ INTRANET and INTERNET Based Service.
- ❖ eBooks/ eJournal Facility
- ❖ Library Website / Facebook page updates.

Book-Bank:

General Book-Bank for all students consists of multiple copies of textbooks. The books are lent to all students for home reading for 15 days. Every year multiple copies are added to the Book-Bank. In addition to this, there is a separate Book-Bank facility for SC/ST students also. There are 30,049 books available in all branches in Book-Banks of this Library. Automation of Book-Bank book is completed and the circulation of books is being done by using BARCODE System.
Special collection for SC/ST students - Students can borrow up to 5 books from Book-Bank for a period of one semester. The Library issues a circular in the beginning of every semester and the eligible students may apply to avail as per the schedule announced by the Library.

The following facilities have already been introduced in the Library:

Automated Check-In and Check-Out Facility
CD-ROM and Online Service
Reprographic Units
Digital Library
Book-Bank
Networking of Library Services
Link other libraries (NIT, IIT Libraries)
Member of eShodhSindhu Consortium
Internet based Library Services.

Borrowing Privileges and Renewal:

User Types	Items	Period of loan
Teaching Faculty	15 books	1 semester
Research Scholars	5 books	1 semester
UG/PG students	6 books	30 days
Supporting Staff	4 books	30 days
Industries	5 books	30 days

Books may be renewed for further period provided no other reader has reserved for the book. The renewal request should come, before the expiry of due date. No more than three consecutive renewals shall be allowed. Librarian in the interest of the library service can demand the return of any library materials from any user before expiring the due date. Students have to return the books on or before the due date. A fine of Rs.1.00 per book per day will be levied, if the books are not returned within the expiry date.

Services provided by the Library:

- Open Access System
- New Arrivals updates through eMail.
- Newspaper Display
- Selective Dissemination of Information and Current Awareness Service (SDI and CAS)
- Online and eMail based SDI & Alert Service
- Book-Bank facility
- Digital Library
- Inter Library Loan Service
- Reprographic services
- Web Online Public Access Catalogues
- CD-ROM data base access
- Request based Bibliography/ Literature Search Service
- Practical and Apprenticeship training for diploma and degree student of Library and Information Science
- eJournals access through Consortiums.

9. Other Activities:

For fresher of U.G. and P.G. courses, Library conducting Orientation Classes in the beginning of the academic year.
Library conducts hands-on training and User Awareness Programs regularly.

The Library is compiles list of "New Arrivals" Monthly, shared with users through eMail and Website.
The Library provides training programme to the LIS Graduates& Diploma Students of the Government Polytechnics for Women, Mangalore and Apprentice Training programme is also conducting.

Library is also providing the SDI Service (Selective Dissemination of Information) on the various on-going Research Projects sponsored by the NITK, D.S.T., C.S.I.R. and other Research Organization etc. Under-Graduates, Post-Graduates and Research Scholars are also making use of these services for their project works. Seminars and Information Retrieval Services by using Computer.

Services to Industries, Educational Institutions, Government Establishments, the neighboring Govt. Departments, Educational Institutions and Industries are using this Library services quite often.

Membership fee of Rs.10.000/- (5 cards) introduced to the industries and several industries are members to this Library.

The Library has an Inter Library Loan facility with leading Institutions and G.O.I. Establishment.

International Conference DigiTTAL-2019 organised by Central Library:

Central Library, National Institute of Technology Karnataka, Surathkal has organised an International Conference on "Digital Technologies and Transformation in Academic Libraries (DigiTTAL-2019) " during December 26-28, 2019 as part of Diamond Jubilee Celebration Year of the institute (1960-2020). The conference has attracted more than 250 delegates across India and abroad. It has received more than 130 papers, which underwent a rigorous blind-review process and finally 91 papers have been selected for oral presentation.

Prof. Dr. M Shantaram Shetty, Pro-Chancellor, NITTE University was the Chief Guest who inaugurated the conference. Dr. Bhanu Neupane, Programme Manager, UNESCO, Paris was the Guest of Honor. Prof. K. Balaveera Reddy, Chairman, BoG, NITK Surathkal, presided over the inaugural ceremony in the presence of Prof. K. Umamaheshwar Rao, Director, NITK Surathkal. Prof. Lakshman Nandagiri, Department of Applied Mechanics and Hydraulics served as the Conference Chair and Dr. Mallikarjun Angadi, Librarian, Central Library was the Organising Sectretary. Dr. Noraziah Sharuddin, Universiti Technologi Malaysia, Malaysia delivered the keynote address.
On the second day evening a vibrant cultural programme was organiased imbibing the rich tradition and culture of Dakshina Kannada in the form of folk dances and Yakshagana by cultural team of Govind Dasa College, Surathkal.

Research Publications

1. Dr. Mallikarjun Angadi

Document Type	Total
Book Chapter	6
Books Edited	1

International Conference Organised: (DigiTTAL-2019)

Organising Secretary for the International Conference on "Digital Technologies and Transformation of Academic [DigiTTAL-2019]" organised by Central Library, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019

Book Chapters:

Iranna M. Shettar and **Mallikarjun Angadi.** "Researchers' Perceptions of Academic Social Networking Sites: A Study." in Trends, Challenges and Opportunities for LIS Education and Practice, Shree Publishers, 2019, pp 249-258, ISBN: 9788194194019.

Nijwm Basumatary, Puttaraj Choukimath and Mallikarjun Angadi. **"**Research Data Management Policies, Plans and Solutions:The Imperatives for the Higher Education Institutions", In: Proceedings of International Conference on Digital Technologies and Transformation of Academic Libraries, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019. Shree Publishers & Distributors, New Delhi, 2019, p. 248-264, ISBN: 978–81–941940–0–2

Divyanshu Jain, Appasaheb Naikal and Mallikarjun Angadi. "Use of Social Networks in Libraries", In: Proceedings of International Conference on Digital Technologies and Transformation of Academic Libraries, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019. Shree Publishers & Distributors, New Delhi, 2019, p. 318-323, ISBN: 978–81–941940–0–2

Basavaraj Chavan, Mallikarjun Angadi and Gundappa Nayak. "Publication Productivity and Research Impact of Top Five NITs: A Scientometric Analysis", In: Proceedings of International Conference on Digital Technologies and Transformation of Academic Libraries, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019. Shree Publishers & Distributors, New Delhi, p. 379-390, ISBN: 978–81–941940–0–2

Rashmi Rekha Gohain and Mallikarjun Angadi. "Usage Pattern of Institutional Repositories for Scholarly Communication by Academician in Maharashtra", In: Proceedings of International Conference on Digital Technologies and Transformation of Academic Libraries, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019. Shree Publishers & Distributors, New Delhi, p. 732-746, ISBN: 978–81–941940–0–2

Dayanandappa Kori and Mallikarjun Angadi. Internet Literacy Skills and Perception on Internet among Commerce Students in Mangalore University, Karnataka. In: Proceedings of International Conference on Digital Technologies and Transformation of Academic Libraries, National Institute of Technology Karnataka, Surathkal, India, 26-28 December, 2019. Shree Publishers & Distributors, New Delhi, p. 764-771, ISBN: 978–81–941940–0–2

Books Edited (Conference Proceedings)

Angadi, Mallikarjun; Hadagali, Gururaj S.; Shettar, Iranna; Kattimani, P. S.; Balutagi, Suresh and Agadi, Kotrayya B."Digital Technologies and Transformation in Academic Libraries (Proceedings of DigiTTAL-2019, Vol-1 & 2", New Delhi, Shree Publishers & Distributors, 2019, ISBN: 978–81–941940–0–2

2. Mr. Iranna M. Shettar:

Document Type	Total
International Journal	2
National Journal	1
Book Chapter	1
Books Edited	1

International Journal

Shettar, Iranna M., and Hadagali, Gururaj S. "Scientometric Analysis of Research Publications of National Institutes of Technology." SRELS Journal of Information Management, DOI:10.17821/srels/2020/v57i2/146923, Vol. 57, no.2, pp 84-100, Apr 2020.

Hadagali, Gururaj S.; Shettar, Iranna M; Mulimani, Renuka and Kadakol, Mrutyunjay. "Global pharmacy and pharmacology research: A scientometric study (1988–2017)." International Journal of Pharmaceutical Research, DOI: 10.31838/ijpr/2020.12.02.0061, Vol. 12, no.2, pp 536-543, Apr-Jun 2020.

National Journal

Shettar, Iranna M., and Hadagali, Gururaj S. "Coronavirus: A Scientometrics Study of World Research Publications." International Journal of Information Dissemination and Technology, DOI: 10.5958/2249-5576.2020.00002.3, Vol.10, no.1, pp 8-16, March 2020.

Book Chapters:

Shettar, Iranna M., and Angadi, Mallikarjun. "Researchers' Perceptions of Academic Social Networking Sites: A Study." in Trends, Challenges and Opportunities for LIS Education and Practice, Shree Publishers, 2019, pp 249-258, ISBN: 9788194194019.
Books Edited (Conference Proceedings)

Angadi, Mallikarjun; Hadagali, Gururaj S.; Shettar, Iranna; Kattimani, P. S.; Balutagi, Suresh and Agadi, Kotrayya B."Digital Technologies and Transformation in Academic Libraries (Proceedings pf DigiTTAL-2019, Vol-1 & 2", New Delhi, Shree Publishers & Distributors, 2019.

11.4 LABORATORIES

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS:-

Hydraulics Laboratory:
Flow Measuring Units
Pumps , Water meters
Calibration Devices
Turbines
Hydraulic Machines
Pressure Gauges
Valves
Tilting flume
Pipe bursting unit
Ultrasound flow meter

Strength of Materials Laboratory:
Universal Testing Machine U.T.M 5 T, 40 T, 100 T, 200 T (Electronic)
Hardness Testing M/c
Torsion Testing M/c
Hardness Testing M/c
Fatigue Testing M/c
Impact Testing M/c

Marine – Geotechnical Laboratory:
Consolidation Apparatus
Direct Shear Apparatus
Photo Elastic Bench
Corrosion Measurement Voltage system
Optical Microscope

Wave Mechanics Laboratory:
Regular Wave Flume [50 X 0.71 X 1.1 m] – 2 No.s
Digital Storage Oscilloscope with software
Wave probe with software

Hydraulic Measurement Laboratory:
Ultrasonic Testing Kit
Electronic Balance
Grandular Matrix Soil Moisture Sensors
Digital Soil Moisture and Temperature Recorder
Tipping bucket rain gauge
Basic Hydrology Unit

Remote Sensing & GIS Laboratory:
Computer systems : 20 No.s
Printer, scanner
Stereoscopes
Ground truth Radiometer
Digital Planimeters
Aerial & Satellite Imagery
ARCPAD GPS, Garmen GPS
DGPS
Total station
Softwares : ERDAS- Imagine, ARCGIS, ENVI 5.4
Open Source GIS
R software

Computer Laboratory:
Computer systems: 10 Nos
Ground water Modelling Software (GMS),
Water Management Software (WMS);
Aqua Chem software
SWAT CUP MATLAB
Scanner, Laser printer

New Labs Developed

Computational Hydrodynamics Lab
Computer systems: 10 Nos Open Source REEF 3D
MATLAB
MIKE 21 software
SACS software

Advanced Structural Mechanics Lab
Fretting Wear Testing Machine

Structural Dynamics Lab
Shake Table
Building models
Accelerometers
LVDT
Ship/sloshing tanks
Load cells

Experimental Stress Analysis Lab
Strain Rosette
Stress gauge
Measurement of Shear number
Temperature Compensation
Rectangular delta

Marine Structure Monitoring Laboratory
Underwater Remotely Operated Vehicle
Marine Surface Vehicle for inspection
Thermal and RGB Inspection Unit
Open Source Fluid Structure Interaction Setup

Unmanned Aerial Vehicle Laboratory
3D Modelling with Aerial Imaging
Octocopter with multispectral Imaging
Open source Simulation for Design
Wind Tunnel (shared with SOM Lab)
Smoke Tunnel for flow simulation

Virtual labs developed partnering with CSD, NITK Surathkal

1. Strength of Materials : http://sm-nitk.vlabs.ac.in/
2. Fluid Mechanics: http://fm-nitk.vlabs.ac.in/
3. Fluid Machinery : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/fluid-machinary-lab/index.html
4. Marine Structures : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Marine_Structures_Lab/experimentlist.html
5. Transportation Engineering : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Transportation_Engineering_Lab/experimentlist.html
6. Environmental Engineering-1 : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Environmental_Engineering_1/experimentlist.html
7. Environmental Engineering-2 : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Environmental_Engineering_2/experimentlist.html
8. Mining Geology : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/geology-lab/experimentlist.html
9. Physical Metallurgy : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/physical-metallurgy/labs/index.php
10. Mining Environmental Engineering : http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/mining-enviornment/labs/index.php

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DEPARTMENT OF CHEMICAL ENGINEERING:-

Testing & Quality Control Lab : Flame Photometer, Tinto meter, Turbidity meter, C.O.D. Digester, Brook Field Viscometer, Flue Gas Analyser, Trinocular microscope, Bomb calorimeter, Conductivity meter, Spectro photometer, B.O.D. incubator, Noise Level Meter, Water Purification system.

Project Lab I & IA: Ultrasonic water Bath, Muffle furnace, Peristaltic pump, Ultrasonic Sonicator, UV Ozone Cleaner, Continuous homogeniser.

Project Lab II: Horizontal laminar flow work station, Gel document, spectro photo meter, Eppendorf centrifuge.

COMPUTER SIMULATION LAB: Ansys CFD, Aspenplus, MATLAB, Design Expert.

Project Lab III: Deep Freezer, Centrifuge, UV solid sampler, centrifuge, Microscope.

HEAT TRANSFER LAB: Jacketed vessels, Shell and tube heat exchanger, double pipe heat exchanger, Thermal conductivity of solids apparatus, High volume sampler, Portable gas sampler, Plate heat exchanger, Stack monitoring kit, Fluidized Bed Combustor (IIT Madras), Deep Freezer.

PROJECT LAB IV : Ultra Sonic water bath, Auto clave, Stirred Cell Membrane Unit, U V Irradiated membrane filtration Unit.

PROJECT LAB V: Flash point apparatus, Viscometer - (Redwood & Saybolt), Eddy current drive with motor & accessories, Ozone Generator, Jacketed vessels, Generator - 10 KVA, Ozone Monitor/TLA

BIOTECHNOLOGY LAB:Laboratory Centrifuge, Digital Refractometer, Orbital shaker, Hi-Anaerobic system, Autoclave (vertical), Compound Microscope, Microwave Oven, Lyophilizer, Gel Electrophoresis, Continuous Homogenizer, Lab Bioreactor with variable Volume Fixtures, Brook Field Viscometer, Tangentail Flow Filtration with ultrafiltration Module, Temp Controlled Digital Density Meter, Spectrophotometer, Incubator - shaker, Horizontal laminar flow work station, ultrasonic processor,

PROJECT LAB V: Elgi Centrifuge, Electric oven, Muffle Furnace, Surface tension meter, Membrane testing System, Peristaltic pump, Incubator - shaker , Vortex Mixer, rotating disc contactor, Continuous membrane filtration unit, Ice Flaker.

FERMENTATION LAB: Colony Counter, CO_2 Incubator, Microwave Digestion System, Muffle furnace, Incubator - shaker, High speed cooling centrifuge, Freeze dryer, C.O.D Analyser, Pestle & Mortar, Pellet Press, Slow Speed Cutting Machine, Vacuum Cleaner, ionic conductivity source meter.

ADVANCED INSTRUMENTS LAB: Electrochemical Workstation, cell ,C-Electrode, Gel Electrophoresis, Bio Sensor, Mini Protean Tetra cell, Trinocular microscope tifac, Spectrophotometer, Total organic carbon analyser, Graphite furnace and hydride generator, Ultrapure water generator, AAS, Electrophoresis, High Performance liquid Chromatograph, Gas chromotography-Mass spectrophotometer, Ion Chromotography, High speed refrigerated cooling centrifuge

Immunology Lab: Micro Centrifuge, Power Pack for southern & Northern blots, Automated microplate reader, Western Bolt unit, Photometer for PCR Work, Polymeraze Chain Reaction Machine.

Mass Transfer Lab: Liquid Extraction in Packed Bed, Vertical Tube Evaporator, Packed Distillation Column, Absorption in Packed Tower, Spray Tower, Fluidized Bed Dryer (With air circulation) Model No.MT – 18, Wetted Wall Column (with air circulation), Batch Crystallizer, Forced Draft Tray Dryer, Diffusivity Measurement, Counter current leaching, Cross current leaching, Steam Distillation, Vapor liquid equilibrium, Surface evaporation, Liquid Extraction in Packed Bed.

PROCESS CONTROL & REACTION ENGG:
Batch reactor, RTD in tubes plug flow reactor, RTD in packed bed, RTD in CSTR, Reactor combination of PFR and CSTR, Magnet pump , Multi range conductivity meter , Digital online, Process control loop trainers, Non-interacting tank, Time constant of Pressure Vessel & mercury meter, Constant temperature bath.

HEAT TRANSFER LAB: Shell and Tube Heat Exchanger, Electrically Heated Boiler, Parallel flow / counter fliow/Double pipe heat exchanger, Pool Boiling Heat Transfer Apparatus Forced Convection Heat Transfer , Natural Convention Heat Transfer Model, Stefan Boltzmann apparatus, Thermal conductivity of insulating Powders, Thermal conductivity of liquids, Horizontal Condenser & Vertical Condenser Steam, Heat Transfer through coils, Natural and forced convection in air, Heat Transfer through packed bed apparatus, Transient heat conduction-constant

heat flux, Transient heat conduction-constant temperature, Heat Transfer through vertical barre and finned tube heat exchanger, Plate heat exchanger, Spiral plate heat exchanger, Heat losses by combined convention and radiation (for cylinder & sphere).

FLUID MECHANICS LAB: Flow through pipes and fittings, Flow through office meter, Flow through rotameter, Flow through fluidized bed, Flow through Packed bed, Flow through venturi meter, Flow through Notches, Flow through coils, Characteristics of a centrifugal pump, Pitot tube, Open orifice, Annulus.

PARTICULATE TECHNOLOGY LABORATORY:
Ball mill, Sieve Shaking Machine, Screen effectiveness, Air permeability, Jaw crusher, Air elutriation, Batch sedimentation, Leaf filter, Drop weight crusher, Attrition mill, Jaw Crusher, Vibrator

Environmental Immunology laboratory:
Kinetic plate reader, universal plate reader, deep freezer, cooling centrifuge, CO_2 incubator, hot air oven, Gel electrophoresis units, minivol samplers, microbial samplers.

Systems and Control Laboratory: Heating and Cooling Circulator, Crystallizer, Lab scale Wastewater Treatment Set up.

Energy & Catalysis Materials Laboratory: -Dilatometer, Ionic conductivity meter, Fume hood, Hot air Oven, Tubular and horizontal Muffle furnaces, High temperature Muffle furnace, Pellet presser, Low speed cutting machine, CO Gas analyzer. Electric Agate mortar and pestle.

DEPARTMENT OF CIVIL ENGINEERING

Transportation Engineering Laboratory: Marshallstability machine, Centrifuge extractor for bitumen, Servo controlled fatigue testing machine, Gyratory compactor.

Transportation Design Studio: Video cameras, Radar Guns, Computing facility.

Earthquake Engineering Laboratory: Small shake Table and computing facility

Concrete Materials Laboratory: 2000 kN Compression Testing Machine, Accelerated Curing Tank, Pelletizer, Rebound Hammer, PUNDIT UPV-Tester, Setting Time of Concrete Apparatus, Equipment for testing rheological characteristics of SCC, Carbonation Chamber

Structural Engineering Laboratory:100kN OHT (Manual),, 200 kN Testing Frame, 50 kN Testing Frame, Column Testing M/c,

Environmental Engineering Laboratory: Atomic Absorption Spectrophotmeter

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING:-

UG lab-1
- HP 80Compaq P-IV computers with TFT Monitors - 67
- Lenovo think center M93P – 1
- HP LaserJet 1010 -1
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

UG lab -2
- Dell OptiPlex 9010 - 60
- Dell OptiPlex 5070 - 8
- Dell precision T1650 - 2
- Canon LBP2900 -1
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

UG lab-3
- Dell OptiPlex 5070 – 52
- Dell OptiPlex 5070 MT – 06
- Lenovo Think center M92T computer system – 03
- Dell OptiPlex 9020 MT with accessories – 08

- HP laser jet 1020 plus – 01
- HP Photo Flat Bed Scanner – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

UG lab – 4

- Dell precision T1650 – 06
- Dell OptiPlex 9010 – 09
- HP laser jet 1020 plus – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

I M.Tech Lab

- HP DeskJet Core i5 with accessories – 38
- Lenovo Think Centre M910T Tower Desk – 10
- Dell 9010 i7 - 13
- Dell OptiPlex 9020 MT- 02
- HP LaserJet P1007- 01
- HP LaserJet M1005 – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

PG Project Lab

- Dell OptiPlex core I7 computer with accessories – 05
- Lenovo Think centre M910T-Tower Desktop – 29
- Lenovo Think centre M92T-Tower pc computer system – 07
- Canon LBP2900 - 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

Research lab -1

- Dell OptiPlex 9020 MT with accessories – 07
- Dell OptiPlex 9020 MT with accessories – 05
- Lenovo Think Centre M910T-Tower Desktop – 03
- Dell OptiPlex 9010 – 03
- HP HPLJM1319-F – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

Research lab – 2

- Dell OptiPlex 9020 MT with accessories – 03
- Dell OptiPlex 9020 MT with accessories – 04
- Dell OptiPlex 9010 – 03
- Lenovo Think center M910T-Tower Desktop – 02
- HP LaserJet 1010 – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

Image processing lab

- Lenovo workstation (D3043) with accessories – 20
- Dell workstation T1910- 02
- Dell Workstation (7820 Tower Model) – 01
- HP LaserJet 1010 – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

ISEA lab

- Dell High End Workstation (DT Precision 5820) - 02
- Dell Precision 5820 Workstation - 02
- Lenovo workstation(P700) – 07
- Lenovo think station S30 workstation with 24" LCD monitor - 01
- Lenovo Think Centre S-20 & D 20 workstation (2703) - 02
- Dell OptiPlex 9020MT Desktop – 04
- Dell OptiPlex 9010 – 02
- Canon LBP2900 – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

DIGITAL Electronics Lab:

- Digital IC Trainer Kit
- Digital IC Tester and other accessories,
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

DATA CENTRE LAB- Server Class

- IBM E Server with accessories – 01
- Dell High End Server T610 – 01
- Dell power Edge Server R420 - 02
- Dell power Edge Server R720 – 01
- Dell power edge server T630 – 03
- Dell Server PE 730XD – 01
- Dell Server (R740) – 01
- C-Boston Sys- 5038K-j-KNL Development Workstation – 01
- Dell R7 power edge R7404 rack server – 03
- Dell EMC Switch 54112T – 01

- KVM Switch 8 port VGA – 01
- C-NVIDIA DGX P2787 – 01
- LAN – 100/1000 Mbps , Seamless Wi-Fi connectivity with WAPs

DEPARTMENT OF CHEMISTRY:-

Chemistry of Renewables and Catalysis Laboratory:-Hot plate cum magnetic stirrer, Rotary evaporator, Hot-air oven, Muffle furnace, Autoclave, Glass pressure vessel, Double-stage high vacuum pump, UV Chamber.

Synthetic Organic Chemistry and Catalysis Lab:–Rotavapor, Oven, Vacuum Pumps, Electronic Balance, Fume Hood etc. – Group Leader: Beneesh P B

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING:-

High Voltage Testing Laboratory:- 100 kV impulse generator, HV standard capacitor, 5 kV Insulation tester, Oil test kit.

Electric Machines and Drives Laboratory- DSP based drive control units V/F controls, Machine design software (speed, motorpro), Filed analysis software (MAXWELL 3DFS Rexroth INDRAMAT drive unit with AC servo motors

Power Electronics Laboratory - DSPACE – rapid prototyping unit, Converter / Inverter modules, power Device (SCR, IGBT, GTO) modules

Virtual Instrumentation Laboratory- NIDAQ systems, PXI1010 units with High Voltage measurement unit, NI-ELVIS stations, LABVIEW softwares, dSPACE 32xx rapid prototyping platform

Embedded Systems Laboratory OSEK RTOS, KEIL RTOS, KEIL IDE for 805x, ARM, CODEWARRIOR IDE for 68HCXX, TI DSC Code composer Studio for 28XX MOTOROLA, INTEL,ARM,PIC DSC/MC units.

Industrial Automation Laboratory - Distributed Control Systems [YOKOGAWA CS1000], PLC ROCKWELL RSLOGIX%))), ABB RTU232.

Digital System Design Lab -BASYS2 and BASYS3 kits supporting XILINX SPARTAN 2/3e FPGA, Analog Discovery 2 Kits supporting MSO Functionalities

Micro Grid Laboratory-10 kW wind solar hybrid system (2 wind turbines of 3.2 kW each and 3.6 photovoltaic system) capable of operating in grid connected and islanding mode of operation with charge controllers and Inverter. 1.2 kW fuel cell bases experimental system.

Analog Electronics Laboratory Comprises of trainer kit based systems to understand linear and nonlinear configuration of operational amplifier (IC 741) and Timer (IC 555) based circuits

Digital Electronics Laboratory - Comprises of trainer kit based systems to understand functioning of basic and universal logic gates, Combinational circuits and sequential circuits.

Signals & Systems Laboratory - MathWorks based computational platform to model and characterize the continuous and discrete time signal and system characteristics in time and frequency domain.

DSP Laboratory- On using MathWorks based computational platform to write the code and uses of Simulink to understand the application of signal transformation in linear and nonlinear mixing, in typical communication systems such as AM, FM process. Understanding of Phase look loop (PLL) functioning, Approximation of Ideal filter responses using FIR and IIR filters.

Dept. Computer Lab. - 60 desktop computers in the Dept. Computer Lab.

Power Systems Laboratory -Scale-down model of 4-machine power systems, NI-based ADC and DAC cards for real-time data acquisition, Industry grade packages: EMTDC/PSCAD, MATLAB, LabVIEW software's and in-house developed power system stability analysis package, MatSim.

Electric Power Quality Laboratory - Experiments based on MathWorks computational platform and uses SIMULINK to understand the nature of real time power quality events. Also, experiments based on hardware realization of loads that cause power quality problems and demonstration of operation of custom power device, Equipment: Power Quality analyzer

Control Systems Laboratory- Experiments related to DC motor speed control are carried out using trainer kits. Even simulation exercises are done to verify the experimental results.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Analog Electronics Lab:-Digital Storage Oscilloscope, Function Generator, DC Regulated Power Supply Analog/Digital IC Tester.

Digital Electronics Lab:-Digital Trainer, Analog/Digital IC Tester.

Research Lab for Ph. D. Students:- Workstations, PCB Prototype Machine (LPKF), Chemical Free Through Hole Plating System, Access to all design tools available in the department.

Communication Lab:- Digital Storage Oscilloscope, Function Generator, DC Regulated Power Supply, Microwave X band benches, Antenna Trainer , Outdoor FSO Link Setup (Lightpoint), Wireless Comm Trainer Kits (2 set ups), Workstations, LD Driver, LD Module, PD Module, Power Meter, Fibre Optic Power Source, Optical Fibre Trainer, LD Modulator (Transmitter), FORX-200m (Receiver), Fiber Optics Kits, Wireless Sensor Network Professional Kit with Tools, Qualnet Network Simulator, Qualnet Network Simulator Tools, Wireless digital communication training system, (Wi-Communication-T), Outdoor free space optic (FSO) link.RF Equipments, 3GHz Spectrum Analyzer, RF Training Kit, RF Signal Generator, Vector Network analyzer 40GHz & Accessories, 3GHz Network Analyzer, 100MHz Mixed Signal Oscilloscope, 80MHz Function/Arbitrary Waveform Generator, Digital Multimeter 6.5 digit Triple Output DC Regulator Power Supply, Electronic Instrumentation Training Kit, Digital Source meter with Safety universal Test Lead kit, Microwave experiment kits.

Software: ADS 10 User Licence, Optsim 5 User Licence.

VLSI Lab:- Workstations, Cadence Design suite,, Synopsys EDA Tools, Mentor Graphics Tools, Xilinx Tools, TCAD Tools, FPGA Boards.

DSP Lab:-Dell OptiPlex 9020 x64-based PC(s), MATLAB 2019a (9.6.0) with various Toolboxes, ModelSim, XILINX Vivado Design Suite, SDSoC, Virtex VI Embedded Kits, Xilinx Virtex VI FPGA DSP Development Kit with High Speed Analog, Avnet Spartan – 6/O MAP Co-processing development kit, Avnet Digilent Zed Boards, Zynq-7000 EPP ZC702 Evaluation Kit, Digilent Nexys 4 Kits, Digilent Nexys Video Kit & accessories, Digilent Zybo ZynqTM-7000 Development Boards, STM32F407 Discovery Kits, DE10 Standard Boards, DE1-SoC Altera Cyclone V SoC Development Kits.

Microprocessor & Embedded Systems Lab: - Workstations, Cadance ORCAD PSPICE A/D, PCB design tools, Matlab, Simulink, ARM based code development tools, Microcontroller Kits, NETSIM SW.

Network Management Lab: - Foundry N/w's Fastlron Edge X424.

R&D Lab (Research Lab for Ph. D. Students): Workstations, Access to all design tools available in the department.

Centre for Excellence for Wireless Sensor Networks: - Work stations, WSN Design kits, Sensors, Exata Software: Network Simulator/Emulator, E9000B – Special Product Configuration Total ADS Standard University License Bundles, W1450M Systemvue Media Systems Vue University License Bundles.

Stochastic Modeling Imaging and LEarning (SMILE) Lab:-Workstations, Access to all design tools available in the department

DEPARTMENT OF INFORMATION TECHNOLOGY

Digital Design Lab-I:-DIGITAL IC TRAINER Model -UDT 4004-20, DIGITAL IC TESTER MME-DIT 2040-1

Digital Design Lab – II:-DIGITAL IC TRAINER Model – ML 555T-20, DIGITAL IC TESTER MME-DIT 2040-1

Research Laboratory:- Desktops: HP Compaq 8300 Elite MT PC -2, Dell Optiplex 9020 MT core i7- 3, Lenovo Workstation E-1225V5-1, Dell Optiplex 5050 -2, HP Prodesk 600G5 MT-6, Cameras: Hikvision 2 MP-2

Internet Technology Laboratory:- Desktops:HP Compaq 8300 Elite MT PC - 1, Dell Optiplex 9020 MT core i7-3, HP Prodesk 600G5 MT-5, C-Net gear RN626X Ready NAS, Cameras: Hikvision 2 MP-2

Virtualization Lab:-N Computing L300 Clients -18

Post Graduate Lab–I:- Desktops: HP Compaq 8200 Elite MT PC-8,HP Elite Desk 800 G1 TWR -5, Dell Optiplex 9020 MT core i7- 7, Dell Optiplex 5050 -10, HP Prodesk 600G5 MT-2, Cameras: HIKVISION make 4 MP Dome IP Camera -2

Post Graduate Lab – II:- Desktops: HP Compaq 8300 Elite MT PC -3, HP Elite Desk 800 G1 TWR -3, Dell Optiplex 9020 MT core i7-1, Dell Optiplex 5050-4, Dell 9010 DT-26761536 Optiplex M-1, HP Prodesk 600G5 MT-18, N Computing L300 Clients -2, Cameras: HIKVISION make 4 MP Dome IP Camera -2

Project Laboratory:-Desktops: Dell Optiplex 5050- 39, Dell Optiplex 9020 MT core i7-1, Cameras:Dlink DCS4602 VE (Vigilance Full HD Outdoor Vandal Proof POE) Dome Camera-2

Undergraduate Lab-I: - Desktops: Dell Optiplex 5050 – 16, Lenovo Think M90(5498-PR1)-32, HP Compaq 8200 Elite MT PC-2, HP Prodesk 600G5 MT-22, Cameras: HIKVISION make 4 MP Dome IP Camera -3, Dlink DCS4602 EV Full HD-1, MIC Systems: KQ-SRS-1112 Infrared Sound Field Reinforcement System-1

Undergraduate Lab -II:- Desktop: HP Compaq 8200 Elite MT PC-12, HP Compaq 8300 Elite MT PC-14, HP Compaq 8100 Elite MT PC-5, HP Elite Desk 800 G1 TWR -5, DELL Optiplex 9020-3, Dell Optiplex 5050-1, HP Prodesk 600G5 MT-8, Workstations: Dell Precission T1700-3, Cameras:Dlink DCS4602 VE (Vigilance Full HD Outdoor Vandal Proof POE) Dome Camera-2

Network Switch Room:-HP Compaq 8300 Elite MT PC-1, Dell Optiplex 5050-2, Servers : Dell Power Edge R420 (Batch - 3L22HY1, 4K22HY1)-2, HP SR 638181-371 ML-350 E5645-1, IBM P Series P270 8202 4EC SERVER-1, NVIDIA DGS Station -1, TYRONE CAMARERO DS 400TG-1, Dell Power Edge R730XD 2U Rack server -2, Dell Power Edge R540-1, NETGEAR READY NAS RN316/6BAY 4TB Surveillance HDD, Hikvison 16 CH 2 SATA NVR-1

NITK RDL IoT & Data Analytics Lab:- RDL & IoT Kit Memsic Classroom Kit-

1, Memsic WSN Professional Kit-1,PCI DIOT I/O Interface Kits-20

High Performance Computing Lab:-

DEPARTMENT OF MECHANICAL ENGINEERING

1. **Advanced Dynamics Lab:** Experimental Modal Analysis, Forced Vibration Analysis, Tuned Impulse Hammer, Minishaker with controller, Modal Analysis Software

2. **Wind tunnel laboratory:**subsonic wind tunnel, force balance

3. **Advanced Manufacturig Laboratory:**3-D Printing, Fused Deposition Modeling based 3-D Printer, Material Extrusion, Single Screw Extruder

4. **Smart structures laboratory:** Free and focred vibration setup with controller, Impact hammer, Tri-axial accelerometer, Electrodymnamic shaker, Analyzer, closed loop controller, force sensor, impedence head

5. **Refrigeration and Air-conditioning Research Laboratory:** Micro heat pipe test rig, Vapour pressure determination test rig, Thermoelectric refrigeration test rig, Condenser pressure variation VCR test rig, Vortex tube refrigeration test rig, Air engine test rig, Weather simulation chamber & Window air conditioner test rig, two Stage VCR test rig with intercooler.

6. **Turbomachinery Laboratory:** Low speed compressor cascade test facility, Low speed turbine cascade test facility, Centrifugal blower test rig.

7. **Polymer composites lab:** vartm facility

8. **Advanced fluid mechanics Lab:** Desiccant analysis test rig.

9. **Tribology Laboratory**: Metallurgical Sample Saw, High Temperature Tubular furnace, Ball mill, Disc Polishing Machine, Microscope, Pin on Disc Tribometer.Nano indenter with AFM attachment, Microwave heat treatment setup.Tumbler Ball milling setup.

10. **List of Software in CAD/CAM Laboratory:**

Pro Engineer CREO	50 Users
Autocad	50 Users
Ansys15.0	25 Users
AnsysV10.0	10 Users
MSCAdams	50 Users
MSCatran	50 Users
MSCastran	50 Users
MSCMarc	50 Users
MSCytran	50 Users
CatiaP3	10 Users
CATIAnovia	05 Users
CATIADelmi	05 Users
CATIAPLMExpress	05 Users
LMS AMESim (Multi-domain system Simulation)	05 users
Unigraphics with Advanced Machining Module	05 Users
Deform (Design Environment for FORMing	01 User
AutodeskMoldflow	25 Users
SimPACK(MBDSoftware)	25 Users
MasterCAM	02 Users
20. HyperWorks	05 Users
21. RobotKit	02 Nos.

22. ANSYS research license (1 No)

- **Materials Characterization Laboratory:** Vacuum Arc Melting Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine.

- **Vibration and Condition Monitoring Laboratory:** Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, Single and tri-axial accelerometers, Data acquisition system(NI, HBM), Microphone and SLM, MicroEpsilon Laser displacement pickups, ADAMS,

NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron, Labview.

- **Robotics Laboratory:** Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors, Connecting Pins, Wires, LEDs Berg Strip, and Bread Board, Quadcopter kit, Wall Following Robot.

- **Metrology Laboratory:**

A. Linear Measurements

1. Vernier Caliper
2. Vernier Depth Gauge
3. Vernier Height Gauge

B. Micrometer

4. External Micrometer
5. Internal Micrometer

a. Jaw Type Inside Micrometer
b. Caliper Type Inside Micrometer

6. Depth Micrometer
7. Bench Micrometer
8. Digital Micrometer
9. Telescopic Gauge

C. Measurement Using Slip Gauge

10. Calibration of Micrometer, Vernier Caliper,
11. Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge.
12. Measurement of Mean Distance between Surface and Spacing between Holes.
13. Measurement of Dovetail Angle and Checking the Taper Angle of Taper Plug Gauge.
14. Checking An Angle Plate.
15. Study On Limit And Position Gauges

D.Linear and Angle Measurement

16.Combination Set.

E.Angle Measurement

17. Universal Bevel Protracter
18. Sine Bar

F. Flatness And Straightness Measurement

19. Clinometer

G. Screw Thread Measurement

20. Screw Pitch Gauge
21. Screw Thread Micrometer
22. Effective Diameter Measurement Using Two Wire And Three Wire Method.

H. Gear Tooth Measurement

23. Vernier Gear Tooth Caliper
24. Tooth Span Micrometer

I. Study On Opto-Mechanical Instruments

25. Tool Makers Microscope
26. Measurement Using Comparator

J. Surface Roughness Measurement

27. Surface Roughness Meter (SJ 301)

- **Microsystems Laboratory:** MEMS Sensors Scanning Tunneling Microscope, Self Build Kit, Atomic Force Microscope, Comsol and Intellisuite (Courtesy : NMDC), Sugar Toolbox and MATLAB (Institute Network)
- **Heat Transfer Laboratory:** Free convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube heat exchanger, Measurement of thermal conductivity of metal rod, Measurement of thermal conductivity of solids, Computerized vapour, compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal surfaces, Heat transfer through lagged pipe, Heat transfer through Forced convection, Computerized Air conditioning test rig,. Boiling heat transfer apparatus, Film and Drop wise condensation, Ice plant tutor,. Parallel flow heat exchanger,. Plate Heat exchanger,. Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus, Humidifier-Dehumidifier
- **Machine Dynamics and Vibration Laboratory:** Kinematics of Epicyclic Gear, Kinematics of Cam Mechanism, Kinematics of Gear Train, Kinematics of Slider Crank Mechanism, Spring Mass System, Transmissibility Apparatus, Free Vibration of beam, Experimental Modal Analysis.
- **CNC, Pneumatic and Electro Pneumatic Laboratory:** Trainer Lathe, Trainer Milling Machine, Electro Pneumatic Trainer Kit with Cylinders and Control valves

- **IC Engine Research Laboratory:** MMM Vertical 4- Stroke Diesel Engine,
- Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, (a) Compression Ratio of given IC Engines, (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Gas Analyzer, Hydrogen fuelled SI Engine test rig, CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig.
- **Fuels Laboratory:** Boys gas Calorimeter set(Calorimeter+ gas flow meter (0-1000ml), Redwood viscometer No.1, Saybolt Viscometer, TAR Viscometer(Redwood viscometer No.2, Instech Calorimeter,Flash point tester(Close-up), Barometer with room temperature no.597,. Digital weighing machine (0-10grams), Saybolt Viscometer(old),. Bomb Calorimeter, Cleveland Flash & fire point apparatus, Weighing machine (0-2 kg), Flash and Fire point Tester
- **Theory of Machines Laboratory:** Spring mass system, Whirling shaft apparatus, Motorised gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester(0-35kg), Digital dead weight tester(0-60kg), Digital dead weight tester(0-250kg), Planimeter set, Thermo-Hygrograph H-10/100%, Computerised Emission test set up, Single stage spur gear, Single stage spur gear with intermediate, Two stage spur gear, Three stage spur gear, Three speed and reverse gear, Worm gear, Bevel gear, Rack and quadrant gear drive, Reversing gear, Epicyclic gear (sun & planet), Cycloidal motion, Internal rolling gear drive, Internal gear and pinion drive spur gear.
- **Automotive Electronics Laboratory:** IRIS CAR (Lab Car), with Breakout box, ECU, Injector Box, Wire harness, Communication Module, DC Power Supply, Function Generator, Oscilloscope, Cut Section Models.
- **Stress Analysis Laboratory** Poloriscope, Strain measurement setup, Strain Indicator and Recorder.

- **Fracture and Fatigue Laboratory Fatigue setup**
- **Applied Solid Mechanics:**Workstation with GPU
- **Solidification simulation laboratory:** Quick Cast casting sumulation software
- **Solar Energy Laboratory**: Solar Air Heater, Pyranometer And Pyrheliometer
- **Vehicle Dynamics Laboratory**: Damper Testing Machine, Quarter Car Suspension Test Rig

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

1. Data Structures Lab
2. Digital Electronics Lab
3. Software Engineering Lab
4. Networking Lab
5. Database Management System Lab
6. Internet Technology Lab

DEPARTMENT OF MINING ENGINEERING:-

Rock Mechanics Laboratory: Rock cutting machine, Compression testing machine, Schmidt hammer, Slake durability index apparatus, point load strength index apparatus, P-wave velocity apparatus, Losangele's machine, Other rock testing facilities.

Drilling Laboratory: Jack hammer drilling set-up, Air compressor, Modified lathe machine for rock cutting, horizontal and vertical coring amchines.

Blasting Laboratory: Minimates, Minimate plus, High speed video camera, VOD monitor, Laser profile, WIPFRAG software.

Mine Environmental Engineering Laboratory: Water pollution monitoring kit, Respirable dust sampler, Manometer, Crossing point temperature, Digital Methanometer, CO detector, Psychomotor, Sound

level meter, Gas testing set up, Exhaust gas analyzer, Multi gas detector

Mineral Processing Laboratory : Jaw Crusher, Roller Crusher, Rod Mill, Ball Mill, Bond' Work Index Setup, Electro Magnetic Sieve Shaker, Riffle Sampler, Jigging Machine, Wilfly's Table, Automatic Mineral Separator, Spiral Classifier, Density Separator Hydro Cyclone, Davis Tube Tester, Electro Magnetic Drum Separator-Wet, Electro Magnetic Drum Separator- Dry, Froth Floatation Cell, Sampling / Crushing / Grinding - Integrated Unit, Turbo Mixer, Micro Mill, Vacuum Filtration Unit, Disc Mill, Pot Mill, Double Deck Vibratory Screen Model, Infrared Drier, Spiral Concentrate, Sieve Shaker

Mine Surveying Laboratory: Prismatic Compass, Surveyor Compass, Vernier Theodolite, Micro-Optic Theodolite, Dumpy level, Auto level, Digital level, Total station, Handheld GPS, DGPS.

Mine Planning and Design Laboratory: Surpac, Minex, Sirovision, Jk Sim blast softwares, rocscience softwares

Mine Pollution Laboratory: Water quality analyzer, High volume air sampler, Respirable dust sampler, Sound level meter, Opacity meter, Point sampler, Beta attenuation meter, Weather monitoring station

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Extractive Metallurgy Lab: Crushers, Ball mill, Floatation cells, C&S analyzer, Sieve analyzer

Testing of Materials Lab: UTM, Instron, Wear testing machine, Hardness testers, NDT, Fatigue testing machine

Physical Metallurgy Lab: Metallography, Microhardness, Image Analyser, Dilatometer

4. Ceramics & Polymer Lab: Ceramics & Polymer Lab

Heat treatment Lab: Heat treatment furnaces, Thermal cycle furnaces

Metal Finishing Lab: Plating facilities

Foundry lab: Induction furnace, Permeability meter

Scanning Electron Micoscope Lab: Scanning Electron Microscope with EDAX

Casting Research Lab: Data logger, Hot stage microscope, Contact Angle Analyser, Image analyzer, Instron tensile tester, Quenchometer, Stereo microscope, 2D Surface Profiler, Solid Cast Software, Ultrsonicator, Ultrasound velocity meter, Thermal property analyser , DAGE bond tester

Powder Metallurgy & Nano technology Lab: Thermolyne High Temperature Furnace, Density Measurement Kit, Incubaters – Ecogain veries, Hot Air Oven.

Transmission Electron Microscope Lab: Transmission electron microscope, GATAN ion milling unit.

Metal Processing Lab: Rolling mill, Precision cutting machines, 250 ton Hydraulic press

Corrosion Lab: Potentiostat and Impedance analyser

Coating lab: PVD facility, electron beam deposition set up. DC sputtering setup

FTIR Lab: FTIR Spectrometer, Four probe resistivity measurement system, USB Oscilloscope

XRD Lab:X-ray Diffractometer

Ceramic & Thin Film Lab:UV Ozone Cleaner, Ultrasonic Atomizer, Scratch Tester, Spi Coater, Probe Sonicator, Vacuum Oven, Screen Printer, Stretching Machine with Compressor, Four Probe & Two Probe, Glass Cutter, Fume Hood.

DEPARTMENT OF PHYSICS

UG Laboratory: Experimental Kits (7 expt.s of 5 sets each)

PG Laboratory: Experimental Kits (8 expt.s of 2 sets each)

- **PG Laboratory II**: Experimental Kits (8 expt.s)

Vacuum Coating Unit (2 no.s)
Research Laboratories:

Thin Film Laboratory:

- XRD
- Keithley Source Meter
- Keithley Multimeter
- Sputtering Unit
- Physical Deposition Unit
- Spray Pyrolysis Unit
- LCR Meter Vacuum coating system

Optoelectronics Laboratory:-

- Optics Inc SD2000 spectrometer (UV vis spectra)
- Lux meter (Lutron)
- UVC Ozone Cleaning Unit
- Thermal evaporator
- Clean air flow bench
- OLED measurement system
- Keithley Sourcemeter (model 2400).
- Jobin Yvon spectrometer with a CCD based detector or a silicon photodiode (SM1PD2A Mounted UV Enhanced Silicon Photodiode, 200-1100 nm Cathode Grounded)
- Optical power meter (Ophir Optronics, model NOVA II with PD300-UVdetector)
- Keithley 6485 Picoammeter
- Tektronix DMM 4040 6-1/2 Digit Precision Multimeter
- Agilent 34972A LXI Data Acquisition/ Switch unit
- Multioutput DC power supply model LQ6324
- Agilent E4980A Precision LCR meter 20 Hz to 2 MHz
- Tektronix TDS 2002B Two channel Digital Storage Oscilloscope 60 MHz 1GS/s
- DH-3 UV-Vis-NIR Calibrated Light Source (Ocean Optics)
- RF Probe Station
- ISO BRUKER Precision Cutting Machine Q-switched Nd-YAG laser; Model GCR -170 from Spectra – Physics, USA.

Crystal Growth Laboratory & Nano materials Laboratory:

- Solution growth system for crystal growth
- High temperature furnace
- Magnetron sputtering system
- Thin film coating unit
- Fume Head Vacuum deposition system-Thermal, DC, RF coating system.

Material Processing Laboratory:

- CLEMEX Microhardness Tester
- Physical vapour deposition
- Polishing Machine
- Muffle furnace (Max Temp 1000^0C)
- Low speed Diamond saw cutting Blade
- Abbe refractometer
- Analytical balance and Density kit
- High temperature furnace
- P H Meter
- U V Visible spectrometer
- Incubator
- Ultra sonicator
- Computer Interfaced Microhardness Tester Density kit

Materials Research Laboratory:

- Electrochemical Workstation (Bio-Logic SP150) (2 Nos)
- Mbraun Glove Box
- Neware battery analyzer
- Kiethly 2 probe and 4 probe measurement systems
- Ocean Optics UV-Vis spectrometer
- DC Spectrum Analyzer
- Muffle Furnace
- Weighing Balance
- Battery Crimper set up
- Sputtering Unit
- Spin Coater
- Spray Pyrolysis unit
- Vacuum Oven
- Hot air oven
- Photoluminescence Spectrometer XRD

Computational Physics Laboratory:

- Dell server (power edge),

Software: VASP, Mathematica, Gaussian and Maple
Nonlinear dynamics and Biophysics:- Dell server power edge
Functional Nanostructured Materials

Research Laboratory (FNMRL):

- Hot air oven
- Bench-Top Centrifuge
- Weighing Balance (0.1mg precision)
- Photocatalytic reaction chamber

Ultrasonicator

Low Dimensional Physics Lab: Sputtering, Impedance analyser, SMU, dc probe station, etc.

SCHOOL OF MANAGEMENT

Computer laboratory:SPSS**,** Palisade Decision Tools Suite, CMIE Prowess Database, CRISIL Research Reports.

Itell Language Laboratory: Software from Logitech Solutions Itell catering 500+1 user.

New Computer Lab: One Server with 30 Desktop Computers

11.5 WORKSHOPS/MAJOR EQUIPMENTS IN THE DEPARTMENTS

DEPARTM ENT OF APPLIED MECHANICS AND HYDRAULICS:-

Lathe, Shearing machine, Drilling machine Grinding machine

DEPARTMENT OF CIVIL ENGINEERING

Departmental Mini Workshop:- A Lathe, A Shearing Machine, drilling machine, grinding machine

DEPARTMENT OF MECHANICAL ENGINEERING

Machine Shop - I: Center Lathe, Heavy duty Center Lathe Geared head Center Lathe, Shaping machine, Universal Milling Machine, Heavy duty piller type drilling machine, Light duty piller type drilling machine, Pedestal grinding machine, Capston Lathe.

Machine Shop - II: Surface Grinding Machine, Cylindrical Grinding Machine, Capstan Lathe, Horizontal Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner, Cutter Grinding Machine, Heavy Cylindrical Grinding Machine, CNC Milling Centre, CNC Turning Centre, Heavy Duty Shearing Machine, Hydraulic Press, Heavy Duty Radial Drilling Machine, Hydraulic Radial Drilling Machine, Universal Milling Machine, Centre Lathe, Hydraulic Compressor. High speed drilling machine, Shearing Machine.

Carpentry Shop: Wood turning lathe, Circular saw, Carpentry bench vise and table

Fitting Shop: Bench vise with table, Surface plate, Anvil Power Tool,5. Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, Shearing machine, Grinding machine, Circular saw, Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jig saw, Hammer drilling, Core cutter drilling machine

Sheet Metal Shop: Soldering table, Bench vise, Shearing machine

- **Welding laboratory:** Metal inert gas welding, Resistance spot welding, Tungsten inert gas welding
- **Foundry laboratory:** Sand sieving machine, Aluminium meting furncace

MAJOR EQUIPMENTS IN THE DEPARTMENTS

MECHANICAL ENGINEERING:

- Vacuum Arc Melting Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine
- Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, Single and tri-axial accelerometers, Data acquisition system(NI, HBM), Microphone and SLM, MicroEpsilon Laser displacement pickups, ADAMS, NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron, Labview
- Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors,Connecting Pins, Wires,LEDs Berg Strip, and Bread Board, Quadcopter kit, Wall Following Robot
- **A.Linear Measurements:** Vernier Caliper, Vernier Depth Gauge,Vernier Height Gauge
- **B.Micrometer:** External Micrometer, Internal Micrometer, Jaw Type Inside Micrometer, Caliper Type Inside Micrometer, Depth Micrometer, Bench Micrometer, Digital Micrometer, Telescopic Gauge
- **C.Measurement Using Slip Gauge:** Calibration of Micrometer, Vernier Caliper,Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge, Measurement of Mean Distance between Surface and Spacing between Holes, Measurement of Dovetail Angle and Checking the Taper Angle of Taper Plug Gauge, Checking An Angle Plate, Study On Limit And Position Gauges
- **D.Linear and Angle Measurement:** Combination Set.
- **E.Angle Measurement:** Universal Bevel Protracter,Sine Bar
- **F. Flatness And Straightness Measurement:** Clinometer
- **G. Screw Thread Measurement:** Screw Pitch Gauge, Screw Thread Micrometer, Effective Diameter Measurement Using Two Wire And Three Wire Method.
- **H. Gear Tooth Measurement:** Vernier Gear Tooth Caliper,Tooth Span Micrometer
- **I. Study On Opto-Mechanical Instruments:**Tool Makers Microscope, Measurement Using Comparator
- **J.Surface Roughness Measurement:** Surface Roughness Meter (SJ 301)
- Micro heat pipe test rig, Vapour pressure determination test rig,Weather simulation chamber & Window air conditioner test rig, Thermoelectric refrigeration test rig, 2 Stage VCR test rig with intercooler, Condenser pressure variation VCR test rig, Vortex tube refrigeration test rig, Air engine test rig
- MEMS Sensors, Scanning Tunneling Microscope, Self Build Kit, Atomic Force Microscope, Comsol and Intellisuite (Courtesy : NMDC), Sugar Toolbox and MATLAB (Institute Network)
- Free convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube heat exchanger, Measurement of thermal conductivity of metal rod, Measurement of thermal conductivity of solids, Computerized vapour compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal surfaces, Heat transfer through lagged pipe, Heat transfer through Forced convection, Computerized Air conditioning test rig, Boiling heat transfer apparatus, Film and Drop wise condensation, Ice plant tutor, Parallel flow heat exchanger, Plate Heat exchanger, Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus
- Kinematics of EpicyclicGear,Kinematics of Cam Mechanism,Kinematics of Gear Train,Kinematics of Slider Crank

Mechanism,Spring Mass System,TransmissibilityApparatus,Free Vibration of beam,Experimental Modal Analysis

- Trainer Lathe, Trainer Milling Machine, Electro Pneumatic Trainer Kit with Cylinders and Control valves
- MMM Vertical 4- Stroke Diesel Engine, Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, Compression Ratio of given IC Engines (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Gas Analyzer,Hydrogenfuelled SI Engine test rig, CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig
- Boys gas Calorimeter set(Calorimeter+ gas flow meter (0-1000ml), Saybolt Viscometer, Redwood viscometer , TAR Viscometer(Redwood viscometer ,InstechCalorimeter,Flash point tester(Close-up),Barometer with room, temperature no.597,Digital weighing machine (0-10grams),Saybolt Viscometer(old),Bomb Calorimeter,Cleveland Flash & fire point apparatus,Weighing machine (0-2 kg)
- Spring mass system, Whirling shaft apparatus,Motorised gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester(0-35kg), Digital dead weight tester(0-60kg), Digital dead weight tester(0-250kg),Planimeterset,Thermo-Hygrograph H-10/100%,Computerised Emission test set up,Single stage spur gear,Single stage spur gear with intermediate,Two stage spur gear,Three stage spur gear,Three speed and reverse gear,Wormgear,Bevelgear,Rack and quadrant gear drive, Reversing gear,picyclic gear (sun & planet),Cycloidal motion, Internal rolling gear drive,Internal gear and pinion drive spur gear
- IRIS CAR (Lab Car), with Breakout box, ECU, Injector Box, Wire harness, Communication Module,DC Power Supply,Function Generator, Oscilloscope, Cut Section Models
- Center Lathe, Heavy duty Center Lathe, Geared head Center Lathe, Shaping machine, Universal Milling Machine, Heavy duty piller type drilling machine, Light duty piller type drilling machine,Pedestal grinding machine,CapstonLathe
- Surface Grinding Machine, Cylindrical Grinding Machine, Capstan Lathe, Horizontal Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner,Cutter, Grinding Machine, Heavy Cylindrical Grinding Machine, CNC Milling Centre,CNC Turning Centre,Heavy Duty Shearing Machine,Hydraulic Press, Heavy Duty Radial Drilling Machine, Hydraulic Radial Drilling Machine, Universal Milling Machine, Centre Lathe,Hydraulic Compressor
- Wood turning lathe, Circular saw, Carpentry bench vise and table
- Bench vise with table, Surface plate, Anvil, Power Tool, Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, Shearing machine, Grinding machine, Circular saw,Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jig saw, Hammer drilling,Core cutter drilling machine
- Soldering table, Bench vise, Shearing machine
- Subsonic wind tunnel
- Experimental Modal Analysis, Tuned Impulse Hammer, Modal Analysis Software, Forced Vibration Analysis, Minishaker with controller
- Moulding facility
- Pin on Disc Tribometer, Metallurgical Sample Saw, High Temperature Tubular furnace, Ball mill, Disc Polishing Machine, Microscope, sigma Z blade mixer
- Free and focred vibration setup with controller, Impact hammer, Tri-axial accelerometer, Electrodymnamic

shaker, Analyzer, closed loop controller, force sensor, impedence head
- Low speed compressor cascade test facility,Low speed turbine cascade test facility, Centrifugal blower test rig
- Desiccant analysis test rig
- 3-D Printing, Material Extrusion, Fused Deposition Modeling based 3-D Printer, Single Screw Extruder

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MAJOR EQUIPMENT IN THE DEPARTMENT

- HP Desktop Computer Systems - Core I7, 8GB RAM, 500GB Hard disk
- HP Prodesk 600 G3MT Desktop Computers – Intel Core i5, 8GB RAM, 1TB Hard disk
- IBM E Server with accessories
- Dell High End Server T610
- Dell power Edge Server R420
- Dell power Edge Server R720
- Dell power edge server T630
- Dell Server PE 730XD
- Dell Server (R740)
- C-Boston Sys- 5038K-j-KNL Development Workstation
- Dell R7 power edge R7404 rack server
- Dell High End Workstation (DT Precision 5820)
- Dell Precision 5820 Workstation
- Lenovo workstation(P700)
- Lenovo think station S30 workstation with 24" LCD monitor
  Lenovo Think center S-20 & D 20 workstation.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

MAJOR EQUIPMENTS:-

1. Experimental Kits for Control System Laboratory DC motor speed control trainer kit Make: JTech Instruments, J-Tech Instruments CHENNAI, DOP: 16.5.2019, Rs. 3, 25,550.00, IRG Capital Fund, Issued to Dr. Debashisha Jena.
2. Frequency Response Analyzer,Scientific Mes-Technik Pvt. Ltd., DOP: 27.5.2019, Rs. 8, 55,750.00, IRG Capital Fund, Issued to Dr. Debashisha Jena.
3. Programmable DC Power Supply, Make: CROMH, SI.No: 62050EC00234, M/S MEL Systems & Services Ltd., DOP: 23.9.2019, Rs. 7, 24,500.00, Tequip-III, Issued to Dr.B. VenkatesaPerumal.
4. Power Analyzer with Accessories & Desk top Computer, Yokogawa India Ltd., DOP: 26.9.2019, Rs. 26, 77,500.00, Tequip-III, Issued to Dr.B. VenkatesaPerumal.
5. Four Channel DSO TPS2024B Digital Storage Oscilloscope,M/S Convergent Technologies India Ltd, DOP: 14.10.2019, Rs. 3, 43,245.00, IRG Capital Fund, Issued to Dr P Parthiban.
6. Programmable DC Power Supply, M/S MEL Systems & Services Ltd., DOP: 24.12.2019, Rs. 6, 30,000.00, IRG Capital Fund, Issued to Dr. A Karthikeyan.
7. Furniture set up for the labs.

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

Sl. No	Name of the Article Equipment	Qty
1	Aficio 3035 Machine	01
2	HP 1020 Laser Printer	02
3	HP P1007 LaserJet Printer	02
4	HP Color LaserJet CP 1515NSNCNAJ85z01X	01
5	Lexmark T 364dn	01
6	EB – 1880 LCD projector	04
7	Digital trainer kit	37
8	1.5 Ton Llyod Make 5 Star Split Type Air Conditioner (Lab & Dept.)	08
9	Wi –fi Access point	03
10	Digital Camera Nikon D520024 1MP Digital SLR Camera (Black)	01

11	Epson L220 Inkjet All in one Printer	01
12	CCTV unit and accessories (Camera)(Lab & Dept.)	06
13	LED TV with Display Board Compatibility Type – EQP (dept.)	02
14	VESTAR 1.5 TON 5* VASYB185A BGT V-GUARD STABILIZER	08
15	Laptop Latitude 3490 BTX CDell-N001L, Dell Sl.No 9G0H2L2 & H9DH2L2	02
16	Hp color laser jet CM1312MFP	01
17	D-Link (Lab and Department)	09
18	HP PRO land DL580GS Server	02
19	HP PRO land DL570GH Server	02
20	Server, 859040-375ML 350G9	01
21	I Omega 1*4 – 200D NAS Server 4TB	01
22	VY707AV Pro 3090 3GB/500 GB PC	65
23	Desktop Computers HPQV994AV ELITE 8300 MT	179
24	Dell Precision T1700 Workstation	06
25	Dell Optiplex 9010 DT with 18.5” Monitor	04
26	Desktop Computer HPC8N27AV Elite Desk	01
27	C-Dell 5810 XCTO-Dell Precission Tower 5810×CTO Base.	04
28	INTEX AC (dept. & Lab)	11
29	Dell 7920 Precision Tower XCTO Workstation	02

Equipments under project

Sl. No.	Name of the Equipment/facility	Qty	Remarks
1	HP Pavilion, 15-AU008TXLaptop, Intel Core i-7-6500U/16GBRAM/1TB HDD/4GB Graphics	1	Project Title:Project title: *Generalized framework for restoring medical and satellite images corrupted by data correlated noise* Investigator: Jidesh P.
2	HP Z238T Desktop, Core i7-6700/8GB DDRAM/1TB HDD	1	
3	HP Pavilion, Power-15 , Intel Core-i7-7700HQ/16GBRAM/1TB HDD/4GB Graphics	1	Project Title: Efficient Regularization methods for ill-posed Operator Equations and their Applications Investigators: Santhosh George and Jidesh P.

DEPARTMENT OF CHEMICAL ENGINEERING

MAJOR EQUIPMENTS IN THE DEPARTMENT

1. Gas Chromatograph
2. Refrigerated Centrifuge
3. Quartz Immersion well Reactor
4. Electro Spinning equipment
5. Bench Top Fermentor
6. Particle Size Analyser
7. Freeze Dryer
8. Gel Documentation
9. Thermogravimetric Analyser
10. HPLC
11. LC –MS
12. ICP –OES
13. FPLC
14. Fermenter
15. Real time Polymerize chain reaction machine
16. biosafety cabinet level II

DEPARTMENT OF MINING ENGINEERING

Major Equipments:-

1. Differential Global Positioning System (DGPS)
2. Total Station
3. Triaxial accelerometer SV 38 V along with a data logger SV106 (Manufacture: Svantech)
4. Permanent License for Virtual Nanolab with Quantum wish Toolkit for Nanotechnology Simulation (Software) (Manufacture: M/s. Integrated Microsystems)
5. Compression testing machine
6. Ground vibration monitors

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Name of the Equipment

Dynamic Control Angle Analyzer
Form Talysurf Intra with Ultra Software with accessories
Digital Image Analysis System Camera Adopter
Heating Stage Temperature upto 1500°C (Furnace)
Jeol Model SEM
Tensile Testing Machine fully Computerized
Melt Flow Indexer
Dage 4000 Plus Bond Tester & Image Capture System
Joel High Resolution Transmission Electron Microscope (TEM)
EDS System for Jeol TEM
Bottom Mount Camera (TEM)
Jasco FTIR Spectrometer
Portable Quenchanct Test System with Quench Probe & Thermocouple Heating Furnace
Universal Testing Machine of 30 KN Capacity with Accessories
Salt Spray Bath
Shimadzu Micro Vickers Hardness Tester
Magnetic Sputtering PVD Unit
Scratch Hardness Tester Linear Tester
Low Temperature Ion Milling System with Accessories for TEM
Tensile Tester with Accessories
SP-150 Potentiostat Galvanostst Chassis along with accessories
Trinoculor Reflected Light Microscope with Digital Camera
Differential Scanning Calorimeter

11.6 HOSPITAL, POST OFFICE, SHOPPING CENTRE

Hospital: One Health Care Center with the services of regular doctors and visiting expert doctors is available. Medical Shop is also available in the Health Care Center.

Post Office: Post Office is available within the Campus.

Banks: Two banks (SBI and Canara Bank) are functioning within the Campus. Four ATMs (2 of SBI and 2 of Canara bank) are available at different locations within the campus.

Shopping Centers: Two Shopping Complexes are available within the campus accommodating about 15 shopping rooms which includes Saloon, Beauty Parlors, Printing and Xerox, Vegetable outlet, Bakery, Tailoring, Cloth Shop, Milk parlors, food outlets etc.

Physical education & Facilities: Full-fledged Gymnasium facility, sports grounds for out-door games, Sports complex for in-door games are available within the campus.

11.7 PHYSICAL EDUCATION FACILITIES FACILITIES/AMENITIES:

Physical Education: Department of Physical Education and Sports of this Institute has got excellent Sports infrastructures and facilities provided here is considered as one of the best among all NITs as well as among other Institutions and Universities of this State. Standard, well maintained play fields for all major games like one 400Mts. Track for Athletics, One 75 Yards Boundary Cricket field with 3 playing pitches, One 70 yards boundary Cricket field with a matting wicket, 2 standard size Football fields, 2 Hockey fields with 2 pairs of goalposts with boards, 2 concrete Basketball courts with FG boards and Flood Light facilities, 1 Basketball concrete court at Girls Hostel with flood lights, 2 Volleyball courts with flood light facility, 4 Tennis courts, 2 Ball Badminton, 2 Throwball, 2 Kho-Kho, 2 Kabaddi, 2 Tennikoit courts are available for use. Provision is also there to put Two Handball court with goal posts and one Baseball field with all bases and other required amenities. An indoor hall of cement flooring with 3 Badminton courts and 4 TT tables with proper Lighting system, kept open for 16 hours a day, all 365 days for students use. Weight training hall with Multi Gym, Mini Gym, Individual stations for all sorts of exercises, Weight Lifting and Power Lifting Barbell sets, Fitness equipments like Jogger Treadmills, steppers, Rowing Machines, Bicycle Ergometers, Peck Decks and Abdominal shapers are open for use of everyone even during early mornings and late evenings. Above all these, like a jewel on the Crown an international standard Swimming Pool of 50 x 21 Mts., 8 lane with anti wave lane markers, Olympic type take off boards and diving facilities with 3 Platforms of 1, 3 and 5 meters height are ready for use in this Institute. New Sports complex is having a multipurpose hall with wooden flooring accommodating 3 Badminton courts or one Volleyball court, one multipurpose hall with synthetic flooring can accommodate one Badminton court or one Volleyball court or 2 Kabaddi Courts, one indoor games hall used as Table tennis hall with 8 TT Tables, one indoor games hall to be used for Chess, Carom, Bridge like games, another hall is with 3 squash courts(Construction of playing fiber glass walls pending), another hall meant for Weight training hall is under the process of furnishing with sophisticated fitness equipments. 75% of equipments are ready and remaining 25% may be received shortly for use. Sports Complex also houses space for playing kabaddi on already procured synthetic mat, 2 Indoor Cricket pitches with bowling machine, separate dressing rooms for different sports, Store rooms, Office rooms, Snooker and Billiards room with Tables, 2 stages of 10mts x 2mts size facing 2 large grounds for functions of any kind and capacity to accommodate thousands of crowd, and enough number of wash rooms.

GAMES & SPORTS FACILITIES:

All students, staffs and residents in and around the campus are freely permitted to utilize all Play ground and Gym facilities available in the Institute. Admission to Swimming Pool is free to all students of this Institute. Staffs, residents of the Campus, family members of the staff and staff + students of the campus schools are charged with nominal fee to use the Pool. High quality and standard Sports/Games equipments/articles are provided to students and staffs of this Institute who use these play field facilities, except some personal articles like Tennis, Shuttle Badminton and TT Rackets. Opportunity to all students, staffs and other residents of the campus have been provided to

participate in different level of competitive Sports and Games, by organizing Inter-Class, Inter-Branch, Inter Year and Campus open tournaments(Competitions) in all most all games for both sections. Girls Block Hostel has been provided with a Basketball,
Volleyball, Tennikoit, Kho-Kho and Badminton courts, 2 TT Tables, 4 Carom Boards and Gym with some fitness equipments including a Mini Gym. Arrangements have been made to provide TT Tables, Carrom Boards and a set of Cricket stumps and Bats to each Blocks of Boys Hostels. Volleyball, Throw ball and Badminton courts have been laid near Staff Recreation Club for the use of staff members. TT, carom and Chess like indoor games with required sports articles were also provided for staff club.
All those who get selected to represent the Institution and participate in any of the tournament will be provided with Institute Uniforms (Colors) and all expenditures during participation of that team will be met by the Institute. In addition, Football and Hockey team members will be provided with Stockings and Shin Guards, Cricket team members will be provided with white Pants, Shirts and Caps. All students and Officials who participate in Inter NIT or University tournaments will be provided with Institute Track Suits. All students who represent this Institution in Sports and Games will be provided with Shoe subsidy of Rs.800-00 per year.

11.8 STAFF QUARTERS

245 numbers of Faculty Quarters (which includes 48 dwelling units in Type V and Type VI Apartments) and 176 numbers of Non –faculty staff quarters (which includes 56 dwelling units in Type – III and Type – VI apartments) are available in the campus.

12. STUDENT ACTIVITIES

STUDENTS UNION

Election to the Students' Union of the Institiute was held on 4.4.2019 and the following office bearers were elected:
Nihal Shetty – President
Madhurya M S B - Vice President
Nikhil Raj Nune – General Secretary

GAMES AND SPORTS

STUDENTS ACTIVITIES:

All students, staffs and community in and around the campus are free to use the playing, training and coaching facilities available in the DPES of this Institute. Staff of the DPES are ready to provide instruction, teaching, coaching and training facilities to all interested peoples in and around the campus. This year students teams in the following games were selected by conducting selection tournament/trials and these selected teams have been trained, coached and well prepared to participate in different level tournaments. 1) Athletics, 2) Aquatics, 3) Badminton, 4) Basketball, 5) Carom, 6) Chess, 7) Cricket, 8) Football, 9) Handball, 10) Hockey, 11) Kabaddi, 12) Kho-Kho, 13) Table Tennis 14) Tennis,15) Volleyball and 16) Weight Lifting, Power Lifting and Body building, in Boys section, 1) Athletics, 2) Aquatics, 3) Badminton, 4) Basketball 5) Handball, 6) Kabaddi, 7) Kho-Kho, 8) Tennis, 9) Table Tennis, 10) Throwball, and 11) Volleyball, in girls section.

Special coaching camps are being held by engaging qualified coaches in Athletics, Aquatics, Basketball, Football, Handball, Hockey, Kabaddi, Kho-Kho and Volleyball. For the students of our campus and neighboring schools, teaching, training and coaching classes were conducted in Athletics, Tennis, TT, Shuttle Badminton, Football, Hockey, Kho-Kho, Handball and Volleyball. To impart knowledge of swimming and water survival skills among each and every one “Learn to Swim” coaching camps of 21 days duration were conducted by PED in the Institute Swimming Pool. Staff and Students of our Institution, Campus Schools and neighboring Schools and Colleges are making good use of these facilities. Since it is mandatory for students to participate in Sports and Games, arrangement is made to accommodate as many students as possible in different play fields. Instruction and proper guidance has been provided for all to enhance participation in different sports, games and Physical Fitness activities systematically and effectively. All students are insisted to participate in any of the fitness activities of their choice regularly to maintain their Physical Fitness level. Every student is encouraged to spend at least half an hour a day in the field playing any games of their choice as recreation or other activities to improve their fitness level. All students of this Institute are insisted to become member of the Swimming pool and gain the knowledge of water survival skill or swimming. “Learn to swim” as well as “advanced swimming” coaching camps are conducted to cater the needs of all students and campus people. Competitions are being conducted from the lowest level starting from, their own class/Section, interclass, inter Branch, inter year and inter collegiate level. Intra-Mural competitions in individual sports like Athletics and Aquatics were conducted by DPES and Medals, Certificates and prize money were being awarded to the winners of these competitions as a motivation. Students were allowed to participate in Taluk, District, state and National level open as well as inter collegiate competitions organized by other colleges, District Associations and other Government organizations. Students are permitted to participate in State and national level sports

competitions organized by AIU and other neighboring institutions. All of our Institute teams are permitted to participate in All India Inter NIT Sports organized at other NITs also. Institute is regularly organizing All India Inter NIT Sports every year in some or other games. This year All India Inter NIT Sports in Basketball(Men & Women), Kabaddi (Men & Women) and Swimming (Men & Women) were being organized at our Institute during 17th to 19th January, 2020. More than 800 students from other NITs (24 Men and 18 Women Basketball teams, 22 Men and 16 Women Kabaddi teams, & 8 Swimming Men and Women teams) participated in this Inter NIT sports. Participants were being provided with free Boarding and Lodging facilities.

Diamond Jubilee NITK Cup Inter collegiate Badminton TT and Chess tournament is conducted during 04th to 06th October, 2019 and 14 colleges from Dakshina Kannada and Udupi district participated in this tournament.

During İNCIDENT" National level cultural Festival, DPES organized "Slam Dunk" South Zone Inter Collegiate Basketball, Spike Fest Inter Collegiate Volleyball and "Spin Shot" Inter Collegiate Throwball (Women) Tournament inviting teams from all over India.

Recreation committee (Phoenix) is conducting inter branch, inter year and inter class competitions in many games utilizing all facilities available in the DPES. Collesium is an intra mural sports competitions conducted in the even semester this year also. Intra-Mural selection Competitions in Aquatics is conducted during the month of September, 2019 and Athletics in January, 2020 attracted large number of student participants. Prize money, Medals and Certificates were distributed to 3 place winners of each event. Institute Aquatics and Athletics teams were selected on the basis of these results.

An Inter year competitions for students has been conducted in the even semester and by enthusiastic huge participation, students responded overwhelmingly and spontaneously.

PG premier League Cricket and PG Sports in some games will be organized exclusively for PG students and Staff. All MTech, MCA, MBA, and MSc students participate in this sports. Faculty and staff members are made part of the participating teams. Certificates, Medals, and Trophies are awarded to winners.

Researcher's Premier League Cricket tournament and sports (Team and individual competitions in many sports) will be organized since 4 years in which all most every research scholars of our Institute participate either in sports or organization of this sports events. This is the type of sporting events conducted to research scholars, only at this Institute among all NITs. Faculty and departmental staff also participate in these competitions. Certificates, Medals and Trophies are awarded to winners.

13. RESEARCH, DEVELOPMENT & CONSULTANCY PROJECTS

13.1 R & D PROJECTS (ONGOING & SANCTIONED)

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

1. Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST) Program – 2014 (Strengthening PG teaching and research – Spectro radiometer and Random wave generator with accessories), Sponsored by : DST,Govt. of India, Investigator(s): Subba Rao , G.S.Dwarakish, A. Mahesha, Amba Shetty , H.Ramesh, Manu & Pruthviraj U., Rs. 209.0 Lakhs, 2015-20
2. EUSOP (Evaluation of Uncertainties affecting estimations of Soil Properties by VNIR/SWIR remote sensing data) sponsored by French National Centre for Scientific Research (CNRS)
   PI : Cecile Gomez , Scientist IRD, France CoPIs : Dharumarajan scientist NBSSLUP, Surendra Kumar Singh , NBSSLUP and Amba Shetty NITK Amount 12 200 Euros 2019-2020
3. Coupled dynamic analysis associated with the response and design loads of offshore floating wind turbine, Sponsored by : SERB, DST, Govt. of India, Investigator: Debabrata Karmakar, 25.0 Lakhs, 2016-19
4. Hydrodynamic performance characteristics of Caisson type breakwater, Sponsored by : Ministry of Earth Sciences, Investigator(s) :Manu (PI), Subba Rao (Co-PI) & A.Vittal Hegde(Co-PI), 78.84 Lakhs, 2016-21
5. Optimal Damping of porous screen in Tuned Liquid Damper-Structure interaction, Sponsored by : SERB, DST, Govt. of India, Investigator :T. Nasar, 32.67 Lakhs, 2016-19
6. Climate change - Impact on West coast river basins, Sponsored by : Ministry of Water Resources Investigator(s) : A.Mahesha, Amba Shetty, Varija & H. Ramesh, 65.40 Lakhs, 2016-19
7. Performance of combined wave and wind energy platform, (Principal Investigator), India-Portugal Bilateral Technological Cooperation, Department of Science and Technology (DST), New Delhi, India, PI: Dr. Debabrata Karmakar , 13.5 Lakhs, 2017-2020.
8. Conjunctive use of surface water and groundwater management: A new framework for strategic decision making, Sponsored by : DST, EMR, Investigator : H.Ramesh, 45.0 Lakhs, 2017-20
9. Effect of Frictional Heat on Coefficient of Friction during Full Slip of Al6061 T6 Hertzian Contacts, Sponsored by : Science & Engineering Research Board (SERB), DST, Investigator : Vadivuchezhian K, 27.0 Lakhs, 2018-20
10. Impounding of river flood water along Dakshina Kannada Coast : A sustainable strategy for water resource development, SERB-DST (IMPRINT), Ramesh H. (PI), T.Nasar (CoPI), 2019-22, 111.85 Lakhs
11. Submarine groundwater discharge (SGD) along Karnataka coast, NCESS/ Ministry of Earth Sciences. Govt. of India, Ramesh H. (PI), A. Mahesha (CoPI), 2019-20, 15.00 Lakhs
12. Open source GIS for remote health monitoring, NITK-KREC Endowment Fund, Pruthviraj U., 2019-21, 3.29 Lakhs
13. Design and development of all terrain vehicle with trailer for the conveyance of unmanned marine surface vehicle, NITK-KREC Endowment Fund, Pruthviraj U., 2019-21, 9.01 Lakhs
14. Design and development of brain computer interface for the control of prosthetic arm for persons with disability, NITK-KREC Endowment Fund, Pruthviraj U., 2019-21, 12.10 Lakhs
15. Environmental innocuous pile head breakwater for the Mitigation of coastal erosion Indian, SPARC, GoI, Pruthviraj U (PI), Kiran G. Shirlal (CoPI), Hans Bihs , NTNU Norway (IPI), Øivind

Asgeir Arntsen, NTNU Norway (ICoPI), 2019-21, 48.29 Lahs

16. Design and Development of Lightweight Portable Oil Skimmer, MRPL, Mangaluru, Pruthviraj U. (PI), K C Gangadharan, Mechanical Dept. (CoPI), 2019-21, 44.15 Lakhs
17. Design analysis and development of combined wave and wind energy multi-use platform, SERB, DST, New Delhi, PI: Dr. Debabrata Karmakar, 43.30 Lakh, 2019-21
18. Renewable energies from Ocean: Adoptable and Sustainable technologies for Indian condition, SPARC, GoI, Balaji Ramakrishnan (PI)- IIT Bombay, Prof. Prasad K Bhaskaran (Co-PI)- IIT Kharagpur, Prof. Basavaraj Veeranna Mudgal (Co-PI) - Anna University, Dr. Nasar Thuvanismail-(Co-PI) - National Institute of Technology Surathkal, Prof. Vengatesan Venugopal (IPI) -University of Edinburgh, Prof. David Mark Ingram (ICo-PI) - University of Edinburgh, Dr. Jonathan Shek (ICo-PI)- University of Edinburgh, Dr. Harry van der Weijde (ICo-PI) - University of Edinburgh, 2019-21, Amount : 78.08 Lakhs

DEPARTMENT CHEMICAL ENGINEERING

1. ASEAN-India collaborative research project (AISTDF Sanction Order No: IMRC/AISTDF/R&D/P-7/2017) titled "Synthesis of β-cyclodextrin nickel ferrite nanoparticles for the removal of pharmaceutical compounds from aqueous systems". (35.7 Lakhs) – Dr. Raj Mohan Balakrishnan(2018-2020)
2. Development of Novel SOFC Electrolyte Materials with enhanced Ionic Conductivity-Sponsored by DST SERB India Principal investigator: Dr. Hari Prasad Dasari ; Chemical Engg.at the cost of Rs. 51.13 Lakhs. (Period 30/03 /2017 to 31/03/2020)
3. Development and Demonstration of solid oxide electrolysis cell technology for co electrolysis of CO_2 and H_2O for the production of syngas sponsored by SERB - IMPRINT II India. Principal investigator: Dr. Hari Prasad Dasari: Chemical Engg at the cost of 95.45 Lakhs.(Period 07/03/2019 to 31/03/2022)
4. Project…Impact of maternal diabetes on pre implantation embryo development- Non invasive approach to assess embryo quality using oxygen consumption, SERB – Dr. Keyur Raval, amount 50.4 lacs, 01-04-2018 to 31-03-2021
5. In Vitro mass culture of Steinernema Jeffreyense, biocontrol agent of key insect pests sponsored by International Bilateral cooperation Division, DST, Govt. of India. Principal Investigator: Dr.Prasanna D. Belur, at the cost of 28.16 lakhs (7/12/2016 to 6.11.2019)
6. Development of sustainable technology to produce oxalate depleted starch from Taro corms sponsored by ASTDF Secreatariat, SERB, Govt. of India. Principal Investigator: Dr. Prasanna D. Belur, at the cost of 28.16 lakhs (1/2/2018 to 31.1.2021)
7. Selective Extraction and purification of Commercially Valuable Pigment melanin from Cephalopod ink and its industrial effluent' Sponsored by SERB, Govt. of India. Principal investigator: Dr. I. Regupathi & Dr. Prasanna B.D., Chemical Engg.at the cost of Rs. 49,78,800. (Period 26/03/2019 to 25/03/2022).

DEPARTMENT OF CIVIL ENGINEERING

1. FIST (2014-2019) Fund for Improvement of S&T Infrastructure. Coordinator: Dr.Suresha S.N. INR 110.8 crores. (2014 - 2019)

2. Small Scale and Sustainable Household Wastewater Recycling S3HWR, IMPRINT (2017-2019)- Multi-Institute project, Co-Investigator: Dr. Arun Kumar Thalla (2017-19)

3. Socio-Economic and Institutional Barriers of Climate Change Adaptation Sponsored by ICSSR under IMPRESS. Principal Investigator: Dr. Adani Azhoni (2019 - 2021)

4. Socio-Economic and Environmental Trade-offs in Managing the Land River

Interface Sponsored by Department of Biotechnology, Govt. of India under TaSE. Principal Investigator: Dr. Adani Azhoni (2019 - 2021)

5. Development of Effluent Treatment Techniques for Cashew Nut Shell Liquid Effluent, Phenalkamine Condensate and Development of Method for Stabilising Colour of Cashewnut Shell Liquid, Private Industry, Principal Investigator: Dr. Basavaraju Manu (2019-2020)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

1. Information Security Education and awareness Phase-II-sponsored by DIT MCIT, PI: Dr. Alwyn Roshan Pais Co-PI: Dr. P. Santhi Thilagam, at the cost of 2.7 crore(Approx), 2015-2020
2. An automatic system for identification of phonological processes in children of age two and half to six and half years - sponsored by DST, PI: Dr. Shashidhar G. Koolagudi, Co-PI: Prof. Venkat Raja at the cost of 30.00 Lakhs, 2016-2019
3. Development of Tool for Detecting of Application Layer Distributed Denial of Service Attacks on Web Applications--sponsored by MEITY Government of India, PI: Dr. P. Santhi Thilagam at the cost of 29.78 Lakhs, 2017-2020
4. Characterization and identification of dialects in Kannada Language-sponsored by DST-Science & Engineering Research Board(SERB) PI: Dr. Shashidhar G. Koolagudi at the cost of 35 Lakhs, 2017-2020
5. CP-ABE Scheme with Decryption Keys of Constant Size using ECC with Expensive Threshold Access – sponsored by DST. PI: Alwyn Roshan Pais, Co-PI(s): Dr. P. Santhi Thilagam & Mr. Mahendra Pratap Singh at the cost of 31.12 Lakhs , 2018-2021
6. Automatic detection and quantification of focal cortical dysplasia regions from magnetic resonance brain images using machine Learning techniques sponsored by DST (CSRI). PI: Dr. Jeny Rajan at the cost of 33.09 Lakhs, 2018-2021
7. Quantitative Understanding of Energy in NFV Frameworks (QUEEN) sponsored by Intel Technology India Pvt. Ltd. PI: Dr. Mohit P Tahiliani , Co-PI(s): Dr. Basavaraj Talawar at the cost of 48 Lakhs, 2018-2020
8. Multi Graph based Anomaly Detection Model for Social Network Analysis using Machine Learning sponsored by DST , PI: Dr. M.Venkatesan, at the cost 19.72 Lakhs, 2019-2022
9. CAMP 81, Prototype of a reliable ICN Router using Non-Volatile Memory sponsored by NITK Alumni' 81 batch, PI: Dr. Mohit P Tahiliani, CO-PI: Dr. Basavaraj Talawar at the cost of 1 Lakh, 2019-2021
10. Design and Implementation of Multi-Attribute Void-Aware Routing Algorithm for Software-Defined Underwater Acoustic Modems sponsored by SERB, PI: Dr. Beerappa Rama Chandavarkar at the cost of 44 Lakhs, 2019- 2022
11. Speaker Recognition System for Kannada Language in Emotional Environment Sponsored by DST, PI:Dr Shashidhar G Koolagudi at the cost of 4 Lakhs, 2019-2022
12. Restricted Proper Edge Colorings of Graphs sponsored by Mathematical Research Impact Centric Support (MATRICS), SERB, DST
    PI: Dr. Manu Basavaraju, at the cost of 2.2 Lakhs, 2020-2023

DEPARTMENT OF CHEMISTRY

1. Chemo-catalytic conversion of cellulosic biomass into renewable fuels and specialty chemicals via 5-(trifluoroacetoxymethyl)furfural sponsored by Council of Scientific and Industrial Researc (CSIR). Principal investigator: Dr. Saikat Dutta: Rs. 11.5 Lakhs (April, 2017 – October, 2020)
2. DST-INSPIRE Faculty Award Chemical Fixation of Carbon Dioxide via Transition Metal Catalyzed Carboxylation Reactions – Principal Investigator: Dr Beneesh P B., at the cost of 35 Lakhs (Thirty five Lakhs) - 24/10/2013 to 23/10/2019.
3. Design and development of new lubricity improvers for ultra low sulfur diesel. MRPL, India. PI: Dr. Udaya

Kumar D, Dept. of Chemistry. 12.89 lakhs. 2019-2021. (ongoing).

4. CSIR Research project titled 'Development of Novel Thermoelectric Materials', Grant amount: 10.50 lakhs. (2017-2020) Ref. No. (01) 2905/17/EMR - II dtd. 03-05-2017. Principal Investigator: Dr. D. Krishna Bhat.
5. Towards development of Low cost hollow fiber membranes for haemodialysis applications, Funded by VGST, Govt. of Karnataka, Rs 60.00 Lakhs. 30-05-2015 to 30-05-2021. PI Dr Arun M. Isloor
6. Development of low cost mobile hollow fiber membrane based purifier for treatment of mine waste water, Rs 5.0 Lakhs, Ministry of Mines, Govt of India. 15-03-2020 to 15-09-2020. PI : Dr Arun M. Isloor

DEPARTMENT ELECTRONICS AND COMMUNICATION ENGINEERING

1. Intel Embedded Initiative sponsored by Intel Corporation. Principal Investigator: Prof. Sumam David S; E&C Engg. at the cost of Rs. 5.3 Lakhs. (2011 to continuing).
2. IMPRINT-2 project: Development of cost effective Radiofrequency ablation system and magnetic hyperthermia equipment for thermal therapies of cancerous tumours sponsored by MHRD. Co-investigator(s): Dr. U. Shripathi Acharya and Dr. T. Laxminidhi, E&C Engg. at the cost of 48.94 Lakhs. (2019-2022).
3. Design and Development of Automated Kidney Cancer Detection System from H&E Stained Kidney Histopathological Images sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Shyam Lal; E&C Engg. at the cost of Rs. 27.96 lakhs. (2019-2022).
4. Development of Automatic Land Cover Change Detection and Analysis System from High-Resolution Remote Sensing Images sponsored by ISRO RESPOND Scheme. Principal Investigator: Dr. Shyam Lal; E&C Engg. at the cost of Rs. 19.44 lakhs. (January, 2020 to January, 2022).
5. SPARC Project: Exploring Applications of Radiomics in Brain Tumor Assessment and Treatment sponsored by MHRD. Principal Investigator: Prof. Sumam David: E&C Engg. (Indian Co-PI - Dr Deepu Vijayasenan, Dr Girish Menon (KMC Manipal); International PI – Dr Mandava Pitchaiah, Dr Paul Litvak) jointly with Baylor College of Medicine, Houston, Texas at the cost of Rs 38.63 lakhs. (13th May 2019 to 13th May 2021).
6. Research Grant under Young Faculty Research Fellowship under Visvesvarayya PhD Scheme for Electronics & IT, Digital India Corporation, Ministry of Communications & Information Technology and Govt. of India. Principal Investigator: Dr. Shyam Lal; E&C Engg. at the cost of 14.80 lakhs. (2019-2021).
7. Performance Analysis and Enhancement of Radio over Free Space Optical Communication System for 5G Applications for Smart Cities sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Prabu K.; E&C Engg. at the cost of Rs. 28.06 lakhs. (2019-2021).
8. Development of cost effective Radiofrequency ablation system and magnetic hyperthermia equipment for thermal therapies of cancerous tumors sponsored by SERB. Co-investigator(s): Prof. U Shripathi Acharya & Prof. Laxminidhi T; E&C Engg, at the cost of Rs. 45.94 lakhs. (2019 to 2021).
9. Advanced Research Lab in RF Communications and Networks sponsored by DST, Govt. of India. Principal Investigator: Prof. Muralidhar Kulkarni and Prof. U. Shripathi Acharya; E&C Engg. at the cost of Rs. 116 Lakhs. (2016 to 2020).
10. Special Manpower Development Project on VLSI (SMDP-VLSI) phase-III – Chips-to-Systems sponsored by (DIT) MCIT, Govt. of India. Principal Investigator: Prof. Ramesh Kini M. and Prof. T. Laxminidhi; E&C Engg. at the cost of Rs. 1.6 Crores. (December 2014 to December 2020).

11. Technical Education Quality Improvement Program (TEQIP-Phase III), (2017 to 2020).
12. Development and real-time implementation of fully automated liver cancer detection system from H&E stained liver histo-pathological images sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Shyam Lal; E&C Engg. at the cost of Rs. 9.94 lakhs. (2017 to 2020).
13. Compact multi-band antenna with independently controlled resonant frequency and polarization for mobile wireless applications sponsored by SERB-DST, Govt. of India. Principal Investigator:
    Dr. Krishnamoorthy K.; E&C Engg. at the cost of Rs. 44.22 lakhs. (2017 to 2020).
14. Design and Development of Wideband Circularly Polarized Antenna using 2D Metamaterial Structures sponsored by ISRO RESPOND Scheme. Principal Investigator:
    Dr. Krishnamoorthy K**;** E&C Engg. at the cost of 25.71 lakhs. (2018-2020)
15. Sigma Delta Space Time Adaptive Processing Techniques for GMTI for ASEA Radar sponsored by DRDO, Principal Investigator**:** Dr. Aparna P.E&C Engg., andDr. P Srihari; E&C Engg; Rs. 9.63 lakhs. (August 2018 to August 2020).
16. Automatic Multilingual Speaker Profiling & Forensics sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Deepu Vijayasenan; E&C Engg. at the cost of Rs. 13.5 lakhs. (October 2017 to October 2020).
17. Designing a System to measure moisture content of Cashew seeds both raw and processed sponsored by Kalbavi Cashews, Mangalore. Principal Investigator: Prof. U. Shripathi Acharya and Prof. T. Laxminidhi; E&C Engg. at the cost of Rs. One lakh. (2015 to 2020).
18. Automatic Bias Estimation Technique for 2D/3D Surveillance radar using Networked Radar Data sponsored by BEL, Bangalore. Principal Investigator: Dr. Pathipati Srihari; E&C Engg.at the cost of Rs. 10.00 lakhs. (2019 to 2020).

DEPARTMENT ELECTRICAL AND ELECTRONICS ENGINEERING

1. Bio Signal Processing System for the development of human-machine interaction sponsored by Ministry of Electronics & Information Technology, Meity, Government of India, PI: Dr Krishnan CMC, Rs 25 Lakhs, 2019-2024.
2. Grid Interfacing of Solar Power Generation: Design, Development, and Investigation on High-frequency Transformer Isolated DC-DC Soft-switching Resonant Power Converters, Scope: Power Electronics in Renewable Energy Generation Sponsored by SERB, DST, PI: Dr. Nagendrappa H., Rs. 48.94 Lakhs, 2017-2020.
3. Adaptive MPPT of Grid- tied Photovoltaic System using Magnetically Coupled Impedance Source Inverters, Sponsored by DST-SERB under EMR Scheme, PI: Dr. D. Jena Co-PI: Dr. Nagendrappa H., Rs. 24.36 Lakhs, 2017-2020.
4. Android based home automation Sponsored by Alumni NITK 1988 batch EEE, PI: Dr.B. VenkatesaPerumal, Rs 1.15 lakhs, 2018-2020.
5. Development of an Electric Systems for Automatic Control of Street Lights, Sponsored by Alumni NITK Mr. Ramachandra & Mr.Sukumar Hegde,
   PI: Dr. B. Venkatesaperumal, Rs 0.25 Lakhs, 2019-2021.
6. A Novel Bidirectional Converter for Electric Vehicle to Grid Applications Sponsored by Alumni NITK Ms.Maitree.S, Ms. S.M Naik and Ms Nischita Kaza, PI: Dr. B. Venkatesaperumal, Rs 0.4 Lakhs,2019-2021.
7. Establishing center of excellence (CoE) In “Renewable Energy Source integrated Smart Grid Technologies (RENEST)” Frontier Areas of Science and Technology (FAST), MHRD, GOI. PI: Prof. Panduranga Vittal K., Rs.400 Lakhs (Sanctioned Rs.250 Lakhs under Phase 1), 2014-2019.
8. Design and implementation of optimal controller for wide speed operation of SRM for EV application Sponsored by Department of Science and Technology, Government of Karnataka

under VGST Scheme, PI: Dr P Parthiban, Rs 5 Lakhs, 2019-2021.

9. High Gain Single Stage Micro Inverter Sponsored by Raptor Design Technology Pvt. Ltd. (Company), PI: Dr. B. Venkatesaperumal, Rs 2 Lakhs, 2019-2021.
10. Theoretical Study and Design of High Efficiency wide band class D Power Amplifier for acoustic transducers Sponsored by Naval Research Board , DRDO, Govt. of India, PI: Dr. P Parthiban CO-PI: Dr. Kalpana R, Rs 33.69 Lakhs, 2019-2021.
11. Experimental Verification of Three Phase Asymmetrical Cascade Multilevel Inverter with Single DC-Link by Employing Toroidal Transformer Sponsored by Department of Science and Technology, Government of Karnataka, PI: Dr. Y Suresh, Rs 5 Lakhs, 2018-2020.
12. Back-to-Back Converter Development for Solar Water Pumps Application Sponsored by Infineon Technology India Pvt. Ltd, PI: Dr. B. Venkatesaperumal, Rs 10 Lakhs, 2018-2020.
13. DC-Home Solar based off Grid Converter design and Development of 48 V System Sponsored by NITK, PI: Dr. Y Suresh, Rs 1.1 Lakhs, 2018-2020.
14. Two Research scholarships to investigate in the areas of i. Sensing Techniques, ii. Super-efficient Motor Control, under "Visvesvarya PhD Scheme, Sponsored by GOI, MCIT, DEITY., Prof. Panduranga Vittal K. Rs.40 Lakhs, 2015 – 2020
15. Development of Cost Effective Magneto-Rheological (MR) Fluid Damper in Two wheelers and Four Wheelers Automobile to Improve Ride Comfort and Stability, Sponsored by Ministry of Road, Transport and Highways, PI: Hemantha Kumar, Dept of ME, NITK, Co-PI: 1) Sujatha C., IITM, Chennai, 2) Gangadharan K. V., Dept of ME, NITK, 3) Sharnappa Joladarashi, Dept of ME, NITK, 4) Sandesh S., Ashok Leyland Ltd., 5) Sheron Figarado, Dept of EEE, NITK, 6) Mohammad Rizwanur Rahman, Dept of MME, NITK, 87) Raja Sekaran.S. Rambal Ltd, Rs. 355 Lakhs, 2017-2020.
16. Performance Analysis and design of soft computing technique –based MPPT algorithm for PMSG-based WECS Sponsored by National Project Implementation Unit (A unit of MHRD), CO-PI Mr. Shailendra Gupta GEC Jhalawar, Mr. Ajay Sharma GEC Jhalawar, Mr. Ashish Khandelwal GEC Jhalawar, Mr. Harish Sharma RTU Kota, Mr. A. Karthikeyan, NITK Surathkal, Rs 20.40 Lakhs, 2019-2020

DEPARTMENT OF INFORMATION TECHNOLOGY

1. Edge and Fog Computing Framework for Smart City,Principal Investigator: Prof. G. R. M. Reddy, Mr. Natesha B V, Rs. 25 Lakhs, July 2016-July 2021
2. Visvesvaraya PhD Scheme for Electronics & IT, Media Lab Asia under Ministry of Electronics and IT, GoI. Principal Investigator: Prof. Ananthanarayana V.S (Nodal Officer) at the cost of Rs. 1009.2516 Lakhs, 2014 - 2020
3. Effective Online Framework Solution for Protein Sequence Alignment and to Predict Protein Structure & its subcellular localization using Amino Acid Molecules (Vision Group on Science and Technology, Dept. of Science and Technology, Govt. of Karnataka). Principal Investigator: Dr. Nagamma Patil, Rs 5 Lakhs, August 2018- August 2020
4. Young Faculty Research Fellowship Award (YFRF) Project under the Visvesvaraya PhD Scheme of Ministry of Electronics & Information Technology, Government of India, being Implemented by Digital India Corporation(Formerly Media Lab Asia) Principal Investigator: Dr. Geetha V at the cost of Rs. 10 Lakhs, Jan 2019 to Jan 2021.
5. A Framework for Deep Learning based Analytics for Intelligent Healthcare Applications. DST-SERB (Early Career Research Grant), Principal Investigator: Dr. Sowmya Kamath S, Rs. 35 Lakhs, Jun 2017 - Jun 2020.

DEPARTMENT MATHEMATICAL AND COMPUTATIONAL SCIENCES

1. Dr. Jidesh P, Generalized framework for restoring medical and satellite images corrupted by data correlated noise, DST, Budget : 17,43,070/-, 2017-2020.
2. Prof. Santhosh George and Dr. Jidesh P., Efficient Regularization methods for ill-posed Operator Equations and their Applications, DST, Budget: 18,46,020/-, 2018-2021.
3. Dr. V. Murugan, Applications of Kneading Theorey in Iterative Root Problems Sponsored by SERB, DST, India(4.18 Lacs)

DEPARTMENT MECHANICAL ENGINEERING

1. Development Of a Solar Based Humidifier/Dehumidifier Linked With Ground Water, Dr. Ajay Kumar Yadav & Dr. Anish S., DST, 29.02Lakhs, 18/3/2017-17/06/2020.
2. Development Of Cost Effective Radiofrequency Ablation System And Magnetic Hyperthermia Equipment For Thermal Therapies Of Cancerous Tumors, Dr. Ajay Kumar Yadav, Prof. Laxminidhi T, Prof. Sripathi U Acharya, Prof. B. S Rao (MAHE), Prof. P. U Saxena (KMC), SERB, 48.94Lakhs, 8/03/ 2019-07/03/2022.
3. Experimental Characterization And Numerical Modelling Of Delamination Growth In Fiber Reinforced Polymer Laminated Composites Under Cyclic Loading, Dr. S Kattimani & Prof. S.M. Murigendrappa, SERB, 26.28Lakhs, 24/03/2017 -24/03/2020.
4. An Experimental And Theoretical Investigation On Narrow Thermal Hysteresis Of Cu-Al-Be Based Sma Actuator For Vibration Isolation, Prof. S.M. Murigendrappa & Dr. S Kattimani, SERB, 16Lakhs, .
5. Active Vibration Control Of Laminated Composite Sandwich Plates In Hygrothermal Environment Using 1-3 Piezoelectric Composites, Dr. S Kattimani, SERB, 40.9Lakhs, 26/03/2018 - 26/03/2021.
6. Investigation On Radiolucent Composite Sandwich Materials For Biomedical Imaging Systems Under Hygrothermal Environment, Dr. S Kattimani, DST- ASEAN -India Collaboration, 41Lakhs, 2020-2022 (Aproved).
7. Experimental Investigation On Pulsating Synthetic Jet Micromixers To Determine The Injection Dynamics Of Insulin In Hydrogels For Subcutaneous Drug Delivery, Dr. Arumuga Perumal D, SERB, 32.6Lakhs, 01 August 2017-31 July 2020.
8. An Investigation In To The Effects Of Induced Helicity In The Carotid Bifurcated Arteries On Patient Specific Models, Dr. Anish S and Dr. Mrityunjay Doddamani, SERB, 16.15Lakhs, 26/2/2020 to 25/2/2023.
9. Improvement In The Properties Of Thermally Sprayed Hydroxyapatite Bio-Ceramic Coating Reinforced With Nanostructured Materials, Dr Sudhakar C Jambagi, SERB, 38.4Lakhs, 18/3/2019 to 17/3/2022.
10. Experimental And Numerical Investigation Of Effect Of Leading Edge Protuberances On The Performance Of Wind Turbine Blade, Dr. Sathyabhama A, SERB, 66Lakhs, May 2016 to March 2020.
11. Ultrafine Grain Refinement Through Low Plasticity Burnishing On Waam Of Mgalloy For Aerospace And Automotive Applications, Dr.A.S.S.BALAN, SYST-SEED, 16.09Lakhs, Jan 2020 to Jan 2023.
12. Experimental Technique To Induce Surface Grain Refinement Through Laser Shock Peening On Ecap Processed Mg. Alloy, Dr. H Shivananda Nayaka, SERB, 41.02Lakhs, May 2019 to May 2022.
13. Design Of Magneto Rheological Damper For Vehicular Applications, Indian PI: Prof. C.Sujatha, IIT Madras ; Indian Co-PI: Dr. Hemantha Kumar, NITK Surathkal International PI: Prof. Muthukumaran Packirisamy ; International Co-PI: Prof. Ramin Sedaghati, Concordia University,

Canada, MHRD, 60.35Lakhs, 2019-2021.

14. Development Of Cost Effective Magneto-Rheological (Mr) Fluid Damper In Two Wheelers And Four Wheelers Automobile To Improve Ride Comfort And Stability, PI: Dr. Hemantha Kumar, Co- PI: Prof. C.Sujatha, Dept. of Mechanical Engineering, IIT Madras, Prof. K.V.Gangadharan, Dept. of Mechanical Engineering, NITK, Dr. Sharnappa J., Dept. of Mechanical Engineering, NITK, Dr. Mohd.Rizwan Rahman, Dept. of Material and Metallurgy Engg. NITK, Dr. Sheron F. Dept. of Electrical and Electronics Engg. NITK, Dr. Sandesh S. Senior Manager, Ashok Leyland Ltd. Chennai, Mr. Rajasekharan, Scientific Advisor, Rambal Ltd. Chennai., MHRD & Ministry of Road Transport and Highways, 355Lakhs, 2017-2020.
15. Experimental Investigation Of Passive, Semi-Active And Active Vibration Control Of Composite Sandwich Structure, PI: Dr. Sharnappa Joladarashi Co-PI: Dr. Hemantha Kumar, DST, 51.5Lakhs, 2017-2020.
16. Investigations On The Dynamic Behaviour Of Bacterial Helical Flagellar Filaments Under Axial Flow, Dr. Ranjith M, DST-SERB, 21.46Lakhs, 2017-2020.
17. Design, Analysis And Demonstration Of The Porous Injector Concept For Throttling Of Liquid Rocket Engine., Dr. Parthasarathy P, ISRO, , 2019-2021.
18. Design And Testing Of Robust, High Efficient, Low Polluting Lpg Porous Burners For Household Applications., Dr. Parthasarathy P and Dr. Arun M, DST-SYST, , 2020-2023.
19. Development Of Composite Filament For Light Weight 3D Printed Components, PI - Dr. Mrityunjay Doddamani, Co-PI's - Dr. Srikanth Bontha, Dr. Vamsi Krishna Balla, DST-TSDP, TDT, GoI, 33.03Lakhs, 2017-2020.
20. Pre-Operative Damage Assessment In Orthopedic Surgery Using 3D Printing To Minimize Healing Time, Dr. Mrityunjay Doddamani, VGST, GoK, 5Lakhs, 2017-18.
21. Cost-Effective Enhanced Insulating Foams For Cold Storage Application, Dr. Mrityunjay Doddamani, ISHRAE, 30.62Lakhs, 2020-2023.
22. Additive Manufacturing Of Novel Structural Foam Composites For Durability And Damage Tolerance, PI: Dr. Mrityunjay Doddamani (NITK), Dr. Pavana Prabhakar (UW-Madison, USA); Co-PI's Dr. Suhasini Gururaja (IISc), Prof. Gustavo Parra-Montesinos (UW-Madison, USA), SPARC, MHRD, GoI, 86.49Lakhs, 2019-2021.
23. Development Of Brushless Dc (Bldc) Motors For An Automotive Power Window Application, Dr. K V Gnagadharan (PI) + Mr. Srinivas (Co PI) . Ms/ Aditya Auto , Dept. of Heavy Industries , 375Lakhs, 2020-2022.
24. Design Of Oil Skimming Application With Super Hydrophobic Sponge, Dr. Pruthviraj U (PI) App Mech , Dr. K V Gangadharan (CO.PI), MRPL , 44Lakhs, 2019-2021.
25. Tpem - Fame India Scheme - “Switched Reluctance Motor & Controller For 2W & 3W”, 2018-2021Dr. K V Gnagadharan (PI) , Co Pis Dr. Jeyaraj , Dr. Navin Karanth,Dr. Venkitesh Perumal (EE), Dr. Suresh Y, (EE) , Dr. Krishnan C (EE) + Mr. Srinivas . Ms/ Aditya Auto , Dept. of Heavy Industries , 1700Lakhs, 2018-2021.
26. Virtual Lab Phase Iii, Dr. K V Gangadharan(PI) , Dr. Pruthviraj(AppMech), Dr. Mohit T (CS), NMEICT(MHRD), 100Lakhs, 2017-2021.
27. Origins Of Yielding In Polymer Electrolyte Membranes, KK Poornesh, DST-SERB, 50Lakhs, 2019-2022.
28. Interface Charcteristics Of Membrane Electrode Assemblies, KK Poornesh, DST, 35Lakhs, 2018-2022.
29. Analytical And Numerical Investigations Of Mixed Convection Through Wire Mesh Porous Structure Filled In a Channel, Dr. N. Gnanasekaran, DST-SERB, 21Lakhs, 2019-2022.

DEPARTMENT OF MINING ENGINEERING

1. Predictive Assessment of Postural Risk and Biomechanical Analysis of Musculoskeletal Disorder (MSD) Related Problems of Dump Truck Operators in Indian Opencast Metal Mines", Sponsored by Science and Engineering Research Board, DST, Govt. of India, 2019-2022. (Sanction order no. CRG/2019/001940 dated 02-03-2020: Rs. 18,85,945/-)
2. Investigations into the reduction of phosphorous in iron ore using microwave technology for its suitability to the iron ore and steel industries; Order No. RPC/NITK/2017-18/170 dated 08th August, 2017; Sponsored by ERM Group, Bangalore; (₹10.06 Lakhs).
3. Development of a new type of aero-cyclone for the dry separation of minerals; Order No. 97/RO/2018 dated 20th June, 2018; Sponsored by The Hutti Gold Mines Co. Ltd.; ₹1.96 Lakhs.
4. Development of a comminution process for improving the ball mill efficiency and selective size output through hydro-squeezing; Order No. 115/Min/46/2018 dated 19th November, 2018 from HGML and dated 31st December, 2018 from KSMCL; ₹9.7 Lakhs.
5. Development and Characterizations of Advanced Solar Cell(INR 30 Lakhs)- Sponsored by VGST, Govt. of Karnataka, Department of Information Technology, Biotechnology and Science &Technology, 2017-2020 (Letter No. KSePS/CISEE/2016-17/GRD-536/2017-18/153)
6. Application of Nano Membrane Technologies to purify Mine Waste Water (INR 5 Lakhs)- Sponsored by Ministry of Mines, Govt. of India, 2019

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

1. "Corrosion and Impedance study of Ti-Nb alloy forms developed by PM techniques", sponsored by DST-SERB, Principal Investigator: Dr. S. B. Arya, Dept. of Met & Matls. Engg. at the cost of Rs.18.81 lakhs (Period: 2015-17).
2. "All solution processed transparent low temperature synthesized Indium Zinc Tin Oxide based high performance thin film transistors for active matrix displays", sponsored by DST-SERB, Principal Investigator: Dr. Saumen Mandel, Dept. of Met & Matls. Engg. at the cost of Rs.21 lakhs (Period: 2016-18).
3. "Development of Cost Effective Magnet oRheological (MR)Fluid Damper in Two wheelers and Four Wheelers Automobile to Impr ove Ride Comfort and Stability", sponsored by IMPRINT, Dr. Hemanth Kumar (PI) – Mech. Dept. and Dr. M. Rizwanur Rahman (Co-PI)
4. "Augment the Research Facilities in the Department (i) X-Ray Diffractometer with Accessories, (ii) Field Emission Scanning Electron Microscope", sponsored by DST - FIST, Principal Investigator: Prof. Udaya Bhat K. & Dr. M. R. Rahman, Dept. of Met & Matls. Engg. at the cost of Rs.297 lakhs (Period: 2018).
5. "Development of structural polymer composites from natural fiber/particulate reinforced materials", sponsored by VGST, Govt. of Karnataka, Principal Investigator: Dr. Ravishankar K. S., Dept. of Met & Matls. Engg. at the cost of Rs.20 lakhs (Period: 2018-2020)
6. "Synthesis of Silver Nanoparticles at laboratory scale and further scaling up to pilot scale at HZL", sponsored by Hindusthan Zinc Limited Principal Investigator:Dr. M. Rizwanur Rahman, Dept. of Met & Matls. Engg. at the cost of Rs. 9.96 lakhs (2018).
7. "Development of Metallic nanoparticles-enhanced phase change Materials for thermal energy storage", sponsored by VGST, PrincipalInvestigator:Dr. M. Rizwanur Rahman, Dept. of Met & Matls. Engg. at the cost of Rs.5 lakhs (2019).
8. "Development of Antimicrobial Active Surfaces for Health Care Applications", sponsored by VGST, Govt. of Karnataka, Principal Investigator: Prof. Udaya Bhat K.,

Dept. of Met & Matls. Engg. at the cost of Rs.60 lakhs (2018-2021)

9. "Mitigating Dendrite Growth Using Engineered Electrolyte Layers for the Development of High Energy Density, Long Cycle Life Lithium Batteries", sponsored by DST, Principal Investigator: Prof. S. Anandhan, Dept. of Met & Matls. Engg., at the cost of Rs.64.43 lakhs (Period: 2019-22).
10. Academia-industry outreach program on conventional and advanced ceramic manufacturing for the next generation of ceramics and glass engineers sponsored by The Ceramic and Glass Industry Foundation, The American Ceramic Society, Co-Principal Investigator: Dr. Saumen Mandal, at the cost of 11000USD (Period: November, 2018 – November, 2019).

SCHOOL OF MANAGEMENT

1. Exploring Efficient Solutions for Management of Household Waste A Multi - Stakeholder Approach, Principal investigator: Dr. Ritanjali Majhi, 8th July 2019,IMPRESS, ICSSSR, 12.60 lakhs
2. Adaptation of Climate Smart Agriculture Practices: Challenges and Opportunity forIndian Smallholder Farmers, Principal investigator: Dr. Ritanjali Majhi, SPARC, GOI, 48.18 LAKHS.
3. Assessing the Impact of Climate Change on Agriculture and Exploring the Role of Technology in Adaptation' Principal investigator: Dr. Rajesh Acharya H, funded under ICSSR Minor Research Project Scheme with a funding of Rs. 4,05,000. (Period : 2019 to 2021)
4. Assessing the Impact of Pradhan Mantri Fasal Bima Yojana (PMFBY) on Smallholder Farmers' Principal investigator: Dr. Rajesh Acharya H, funded under ICSSR IMPRESS with a funding of Rs. 4,00,000. (Period : 2019 to 2021).
5. Adaptation of Climate Smart Agriculture Practices: Challenges and Opportunity for Indian Smallholder Farmers. Sponsored by SPARC project-Ministry of Human Resource Development, Government of India. Principal investigator: Dr. Pradyot Ranjan Jena; School of Management Sanctioned amount – Rs 48.18 Lakh. (Starting Period 01/05/2019).
6. Moving towards Climate Resilient Agriculture: Understanding the Factors Influencing Adoption in India and Japan. Sponsored by ICSSR-JSPS, a Indo-Japan joint research project. Principal investigator: Dr. Pradyot Ranjan Jena. Sanctioned amount - Rs. 11.85 Lakh (Starting Period 01/04/2019).
7. A Study of Adaptation to Technological Innovation in Agriculture to Mitigate Climate Change Effects and its Impact on Rural farmers. Sponsored by ICSSR. Principal investigator - Dr. Pradyot Ranjan Jena. Sanctioned amount - Rs. 8.6 Lakh (Starting Period 01/04/2018, still continuing).
8. Governing Extreme and Exploitation Social Media Environment for PWD Rehabilitation, IMPRESS-ICSSR. Dr.Sreejith A, School of Management, Rs. 9030510/- (Period : 1April 2019 to 31 March 2021)

13.2 PROPOSED PLAN FOR RESEARCH

DEPARTMENT OF CHEMICAL ENGINEERING

New Labs/Equipment:-

- Energy & Catalysis Materials Laboratory/Solid oxide fuel cell button cell test station
- Planning to establish "*Polymer Science and Engineering Lab*" for UG/PG and Ph.D. research scholar.

Target for sponsored R&D projects:-

- Proposal titled "Development of Electrospun ceria-based nanofibers for diesel soot oxidation activity" is submitted to SERB Core Research Grant and is under evaluation. Budget: Rs 34.50 Lakhs ,PI: Dr Hari Prasad Dasari

- Proposal titled "Development of doped-ceria based nanomaterials as anode for lithium ion batteries" is submitted to DST under Nano-Mission (Nano for energy and environment) and is under processing Budget: Rs 56.28 Lakhs, PI: Dr Hari Prasad Dasari &Co-PI: Prof. M. B. Saidutta
- Proposal titled "Development and Demonstration of nano-fiber Oxygen Electrodes of Solid Oxide Electrolysis Cells for CO2 and H2O co-electrolysis" is submitted to VGST (), Govt. of Karnataka under the scheme (CESEM). Budget: Rs 50 Lakhs PI: Dr Hari Prasad Dasari &Co-PI: Prof. M. B. Saidutta
- Proposal titled "Integrated photocatalytic and membrane bioreactor process for effective removal of emerging contaminants and disinfection" submitted under Water Technology Initiative (WTI) to DST by Prof. Vidya Shetty K, Department of Chemical Engg., NITK Surathkal as Co-PI in collaboration with faculty from CESE, IIT Bombay.
- Proposal titled"Synthesis and characterization of nanoparticles for the development of resilient brinjal and groundnut genotypes for higher CO_2 and drought tolerance"" submitted to Department of Biotechnology, GoI by Prof Vidya Shetty K, Department of Chemical Engg., NITK Surathkal as Co-PI, in collaboration with faculty from Department of Plant Sciences, School of Life Sciences, MAHE, Manipal and Department of Biotechnology, University of Agricultural Sciences, Dharwad, Karnataka.
- Proposal titled Influence of titanium dioxide nanoparticles on growth, control of fungal disease and host defense enhancement in rice and brinjal plants submitted for possible funding by Nano Mission, DST, New Delhi by Prof Vidya Shetty K, Department of Chemical Engg., NITK Surathkal as Co-PI, in collaboration with faculty from Department of Plant Sciences, School of Life Sciences, MAHE, Manipal

New areas of Research:-

- Development of advanced computational techniques to design a pharmaceutical batch crystallizer communicated to CSIR-HRDG.
- Development of advanced computational techniques for spray drying of whey protein concentrate communicated to SERB-Core Research Grant. Area of research is Multiphase fluid flow.
  (Area of research: Multiphase fluid flow)
- Biodegrdable polymer, Chemical mechanical polishing
- Application of Nanotechnology in Agriculture; Integrated photocatalytic and membrane bioreactor process.

Institutions/organizations for future collaborations:-

- Indian Institute of Technology Hyderabad/ collaboration with Dr Vinod Jhanardhanan in the area of Solid oxide fuel cells.
- MAHE, Institute of Excellence
- Future collaborations planned by Prof Vidya Shetty K with IIT Bombay ,MAHE Manipal and University of Agricultural Sciences, Dharwad, Karnataka.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

New Labs/Equipment:-

PG Labs for VLSI Design, Communication Engineering & Netorks, and Signal Processing & Machine Learning Lab.
IoT Lab, AI and ML Lab.

Target for Sponsored R&D projects:-

Projects from ISRO, DRDO and LRDE.

New Areas of Research:-

Bio-Mechancis

Institutions/organizations for future collaborations:-

Any institution/organization for working towards Make in India.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. Smart Electric Vehicle Supply Equipment with improve Reconfigurability, Economic, Availability and Performance (REAP) Sponsored by SERB, PI: Dr. B Dastagiri Reddy, Rs 89 Lakhs, 2020-2022.
2. Development of Dual Input DC/DC Converter with Smart Energy Management Controller for Enhancing the Reliability of Hybrid Standalone Photovoltaic Systems Sponsored by Vision Group on Science and Technology, Government of Karnataka, PI: Dr. V. Vignesh Kumar, Rs 3.18 Lakhs, 2020-2022.
3. Renewable Energy Sources Supported Charging System Development for Electric Vehicles at Residential and Commercial Establishment Sponsored by Science and Engineering Research Board, PI: Dr. V. Vignesh Kumar, Rs 30.81 Lakhs, 2020-2022.
4. Fault Tolerance Control of High Power Multiphase Induction Motor Drives during Sensor faults for Electric Vehicle Application Sponsored by SERB- Start up Research Grand (Under Review), PI: Dr. Arun Dominic. D, Rs 32 Lakhs, 2020-2023.
5. Fault Detection and Isolation of Doubly Fed Induction Machine during Sensor Faults for Wind Energy Applications Sponsored by VGST-RGS/F Scheme, PI: Dr. Arun Dominic. D, Rs 5 Lakhs, 2020-2022.
6. Design and Development of a Novel On-Board Charger with Advanced Features for Electric Vehicles Sponsored by DST (SERB), PI: Dr. Prajof P, Rs 30 Lakhs, 2020-2022.
7. An Affordable Therapeutic Solution for Rehabilitation of Cerebral Palsy Children with Crouch Gait & Development of active Knee Ankle Foot Orthosis for Rehabilitation of Children Sponsored by SERB-DST, PI: Dr. Krishnan CMC, Rs 59 Lakhs,2020.

DEPARTMENT OF INFORMATION TECHNOLOGY

Dr. Sowmya Kamath:

Target for Sponsored R&D projects:

- FIST 2020 proposal submitted by the department.
- Five Faculty members are involved in the proposal submitted for the setting up of Technology Innovation Hub, under the National Mission on Interdisciplinary Cyberphysical Systems (NM-ICPS).
- Faculty members are involved in the Regional Academic Center for Space (RAC-S) set up at NITK Surathkal.

Dr. Anand Kumar M:

Target for Sponsored R&D projects:

- Submitted Indo-Hungarian Joint International Project
- Submitted STRIDE with University of Hyderabad
- Submitted STRIDE with Amrita Vishwa Vidyapeetham
- Submitted SRG-DST
- Submitted IMPRESS
- Submitted ISRO

New Areas of Research: Multimodel Analysis Institutions / organizations for future collaborations: IIT-Bhuvaneswar, NIT-C, NTE-Singapore

DEPARTMENT OF CHEMISTRY

Further research work in the field of Thermoelectrics, Photocatalysis, Supercapacitors, Materials for energy and environmental applications, Gas separation, supercapacitors, Biomedical research etc

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

1. Investigation of Cost efficient tasks scheduling in Cloud Environment using various metaheuristics approaches.
2. To work on problems related to certain additive functions called charges.
3. Study of regularity conditions and eigenvalue sets for parametric interval matrices.

4. Data Science for Cyber Security.
5. To study the Hyers-Ulam stability of Iterative Functional Equations.
6. To find the order of an iterative root.
7. To study broadcast labeling of graphs and Grundy coloring of Graphs.
8. To study the effects of surface roughness/MHD effects on squeeze flows of viscoplastic fluids.

New Labs/Equipment:

1. Propose to set GPU Computing Lab for High performance computing.
2. Parallel Computing Lab

Target for sponsored R&D Projects:

1. Proposal on Crypto framework for IoT security to DST-SERB.
2. "Development of radial basis function based 'local' schemes for non-local convection-diffusion models".
3. "Spectral methods for conservation laws".
4. Applied for project funding in the area of IoT for smart agriculture.
5. It is planned to write a project in the topic of Hyers-Ulam stability to NBHM/CSIR/DST.

Institutions/organizations for future Collaborations:

1. Different Generalized inverses and their verified computations for rank deficient matrices, future collaborations with University of Nis, Niš, Serbia.
2. On Magic labelings of graphs, Jadavpur University and ITB Indonesia.
3. ABB India & Robert Bosch, IN.
4. EIterative methods for nonlinear equations, Cameron university, US.
5. Prof. Bengt Fornberg, Dept of Applied Mathematics, University of Colorado Boulder, USA.
6. Prof. Rama Govindarajan, ICTS, Bangalore along with my colleague Dr. Vishwanath.
7. Dean's flow of Viscoplastic Fluids, Future collaborations with University of West Indies, Mona Campus, Jamaica.
8. Interested in research on social network analysis research and High performance graphs. Interested in Collaboration with IIT Delhi.
9. Grundy coloring of graphs with IIT Delhi.
10. Broadcast labeling of graphs with IIT Khargpur.

DEPARTMENT OF MECHANICAL ENGINEERING

Neuro Signals Analysis for Healing, Batteries and Fuel Cells, Renewable energy utilization, develop anticorrosion and antifouling coatings, Nanofluidics, Biofluidics, High efficent, low polluting porous burners, Cryogenic rocket engines, Thermal Spray Coatings, Tribocorrosion, Fatigue Analysis, Biodegradable Composites, composite structures, Inverse Bio-heat transfer, Virtual Prototyping Platform for Product Development, Additive Manufacturing, Magnetorheological damper, Novel stent design for human carotid artery.

New Labs/Equipment:-

- Advanced Dynamics Lab (M404)
- Computational Mechanics Lab
- Applied Solid Mechanics Lab
- Welding and Foundry Lab
- Surface Engineering Lab
- Solidification simulation lab
- Microfluids and Nanofluids Lab
- Automation Laboratory 1 (FMS System and Robotics)
- Automation Laboratory 2 (Sensorics and Hydraulics and Pneumatics Control systmes)
- Aerospace Lab.
- Solar Energy Lab
- Bioheat Transfer Lab
- Mechanisms Design Lab
- Vehicle Dynamics Lab
- Smart Structures Lab
- Optimization Lab
- Electrochemical Corrosion Analyzer
- Scanivalve pressure sensor

- Four Stroke CI engine test rig
- Environmental Chember
- Workstation with GPU
- Tungsten inert gas welding, Gas metal arc welding,Restance spot welding,
- Quick cast solidification simulation software, sand sieving machine, Aluminium melting furnace
- Flash and Fire Point Tester
- High Performance Workstation
- Dual purpose flat plate collector for air amd water heating, Parabolic trough collector
- Humidifier-Dehumidifier, Solar Air Heater, Pyranometer, Pyrheliometer, Workstation
- mechanisms kit
- Damper Testing Machine, Quarter Car Test Rig
- Forced and free vibration setup
- Refrigerator, Advanced Heat Transfer Lab (Imprint project).
- Airconditioner 2 Ton, Advanced Heat Transfer Lab (Imprint project).
- workstation, Advanced Heat Transfer Lab (Imprint project).
- Hitek kit, mechanism design lab.
- RFA system RITA-model, Advanced Heat Transfer Lab (Imprint project).
- Universal Testing Machine (1kN), Polymer Composites LAb.
- workstation, Optimization Laboratory.
- Peeling m/c, Electrochemical System Design Lab (DST).
- Rheometer, Applied Solid Mechanics Lab (SERB).
- FIve Gas Analyser, IC engines Laboratory.
- Ball milling, Inverted biological microscope, Surface Engineering Lab.
- Tool Makers Microscope, Metrology.
- Peristaltic pump, Microfluids and Nanofluids Lab (SERB Project).
- Optical Microscope, Microfluids and Nanofluids Lab (SERB Project).
- Combined Vibration Test System, Compoutational Mechanics Lab-B.

DEPARTMENT OF MINING ENGINEERING

1. Dr. B.M. Kunar and Prof. Ch SN Murthy submitted SPARC proposal (Scheme for promotion and Academic Collaboration) for Collaborative Research work with Mining and Mineral Engineering, Curtin University Australia.
2. Dr. K. Ram Chandar & Dr. S.Kumar Reddy, submitted a research project proposal on 'Effect of oldunderground workings on stability of dumps' DST-Govt of India.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

New Labs/Equipment:

1. Surface Engineering Laboratory
2. Facility for assessment of health of quenchants
3. High performance workstation
4. Intel Fortran compilers

Target for Sponsored R&D projects:

1. To get at least one sponsored R&D project per year
2. DST Start up grant
3. BARC Young scientist start-up grant

New Areas of Research:

1. Surface Engg.
4. Smart Materials
5. Data base on liquid Quenchants
6. Wetting/ dewetting of liquids
7. Hydrodynamic stability
8. Shape Memory Alloys

Institutions/organizations for future collaborations

1. Indira Gandhi Centre for atomic Research, Kalpakkam
2. Indian Institute of Science, Bangalore
3. National Aeronautics Ltd., Bangalore
4. Hindustan Aeronautics Ltd., Bangalore
5. Jindal South West, Vijayanagar
6. International Federation of Heat Treatment and Surface Engineering (IFHTSE), UK
7. Kennametal Ltd., Bangalore
8. Thermet Solutions (P) Ltd., Bangalore

9. Tata Institute of Fundamental Research, Hyderabad
10. IIT Hyderabad

SCHOOL OF MANAGEMENT

New Labs/Equipment:-Data Analytics Lab

Target for sponsored R&D projects:- Aiming at Start up Grants from prestigious Institutions.

New areas of Research:-Multi-disciplinary research to meet the special requirements of Industry 4.0

Institutions/organizations for future collaborations:-
Looking for collaboration with *Data Analytics and Computational laboratory (DACL)*, a center of excellence of Indian Institute of Management Bangalore (IIMB) for conducting joint academic activities.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Internet of Things sponsored by DST Areas of Research is Internet of things systems Architecture, future collaborations is foreign universities and/or IITs/IISc.
2. Cyber-Physical Systems sponsored by DST NRB Areas of Research is Resource Management future collaborations is foreign universities and/or IITs/IISc.
3. Cyber Security sponsored by MEITY Areas of Research is Multi-model visual Security future collaborations is foreign universities and/or IITs/IISc.
4. Big Data Analytics sponsored by DST Areas of Research is Big Data future collaborations is foreign universities and/or IITs/IISc
5. IBM Shared University Grant of 15 Lakhs and equipment donation boost the OpenPower research infrastructure here at SPARK Lab. Further, faculty award from IBM will help in improving collaborations and the research profile.
6. Spatial Data Science Research group is formed. The Research Scholars and M.Tech Students are assigned Research Project Related to Spatial Temporal Data. Planning to set up center of excellence in Data Science for Disaster Management and. Remote Sensing Applications The new project proposal are submitted to SERB, Meity and Ministry of Earth Sciences for funding.

TECHNICAL PAPERS PUBLISHED IN REFEREED JOURNALS

Table: List of publications during the period under report

Sl. No.	Department	International Journal	National Journal	International Conference	National Conference	Total
1	Civil Engineering	41	06	34	04	85
2	Applied Mechanics & Hydraulics	47	02	61	09	119
3	Mechanical Engg.	318	--	106	07	431
4	Electrical & Electronics Engineering	44	--	38	--	82
5	Electronics & Communication Engineering	65	--	--	01	66
6	Chemical Engineering	57	--	26	06	89
7	Metallurgical & Materials Engg.	56	--	12	--	68
8	Mining Engineering	24	--	20	01	45
9	Computer Engineering	55	--	63	--	118
10	Information Technology	29	--	46	--	75
11	Physics	52	--	06	--	58
12	Chemistry	45	--	34	04	83
13	Mathematicl & Computational Sciences	64	--	14	--	78
14	School of Management	41	04	26	02	73
	Total	**938**	**12**	**486**	**34**	**1470**

INTERNATIONAL JOURNAL :-

DEPARTMENT OF APPLED MECHANICS AND HYDRAULICS

1. Ananya S. G. and L. Nandagiri, Modeling Actual Evapotranspiration using the Advection Aridity Model. *International Journal of Recent Technology and Engineering* (Elsevier and Scopus Indexed Journal), 8(2S3), pp. 1203-1209, 2019. DOI : 10.35940/ijrte.B1225.0782S319
2. Shekar, S. and L. Nandagiri. A Penman-Monteith Evapotranspiration Model with Bulk Conductance derived from Remotely Sensed Spatial Contextual Information. *International Journal of Remote Sensing* (Taylor & Francis), 41 (4), 1486-1511. https://doi.org/10.1080/01431161.2019.1668074, September 2019.
3. Sameer Balaji Uttarwar, S. Deb Barma, and Amai Mahesha. (2020). "Bivariate modeling of the hydroclimatic variables in the humid tropical coastal region using Archimedean copulas." *J. Hydrologic Engg., ASCE* DOI: 10.1061/(ASCE)HE.1943-5584.0001981
4. Sruthi S Kumar, S Deb Barma and A Mahesha (2020). Simulation of coastal aquifer using mSim toolbox and COMSOL Multiphysics. J. Earth Syst. Sci., 129:66 https://doi.org/10.1007/s12040-019-1329-9
5. Binumol S., Subba Rao, and Arkal Vittal Hegde, Multiple Nonlinear Regression Analysis for the Stability of Non-Overtopping Perforated Quarter Circle Breakwater, Journal of Marine Science & Application, Springer Publication, Paper is accepted & will be published in Issue-1, 2020, Electronic ISSN:1993-5048; Print ISSN:1671-9433
6. H B Jagadeesh and Subba Rao Benefits of Random Wave Testing in Shallow Basin Physical Models for Harbor Wave Tranquility Studies International Journal of Ecology and Development (IJED), CESER Publications, vol.34 (1), pp 118-126, (ISSN 0972-9984 (Print); ISSN 0973-7308 (Online)), 2019.
7. Bhuvanamitra S, Paresh Chandra Deka, *2019, Evaluating the Performance of CHIRPS Satellite Rainfall Data for Streamflow Forecasting, Water Resources Management (2019) 33:3913–3927,* https://doi.org/10.1007/s11269-019-02340-6,IF-2.98
8. Sujay Raghavendra and Paresh Chandra Deka, *2019, Artificial intelligence approaches for spatial modeling of streambed hydraulic conductivity,* ACTA GEOPHYSICA,SPRINGER, Volume 67, Issue 3, June 2019 ISSN: 1895-6572 (Print) 1895-7455 (Online) Pages 891-903 https://doi.org/10.1007/s11600-019-00283-5
9. K.S.S. Parthasarathy & Paresh Chandra Deka, *2019, Remote sensing and GIS application in assessment of coastal vulnerability and shoreline changes: a review, ISH journal of Hydraulic Engineering, Taylor &Francis,ISSN: 09715010., https://doi.org/10.1080/09715010.2019.1*
10. Sujay Raghavendra Naganna , Paresh Chandra Deka , Mohammad Ali Ghorbani , Seyed Mostafa Biazar , Nadhir Al-Ansari and Zaher Mundher Yaseen, *2019, Dew Point Temperature Estimation: Application of Artificial Intelligence Model Integrated with Nature-Inspired Optimization Algorithms, Water 2019, 11, 742; doi:10.3390/*
11. H. J. Surendra, Paresh Chandra Deka, *2020, Fuzzy and improved fuzzy-wavelet approach in modeling municipal residential water consumption estimation using climatic variables, Soft Computing https://doi.org/10.1007/s00500-020-05053-w(0123456789().,-volV)(0123456789().,-volV)*
12. KSS Parthasarathi, Subbarayan Sarvanan, Paresh Chandra Deka, Abhijith Devanantham, *2020, Assesment of potential vulnerable zones using geospatial approach along the coast of Cuddalore district,East coast of India, ISH JOURNAL OF HYDRAULIC ENGINEERING ,*

https://doi.org/10.1080/09715010.2020.1753250 Taylor&Francis

13. Prabal Das, Sujay Raghavendra Nagan na, Paresh Chandra Deka, Jagalingam Pushparaj, *2020Hybrid wavelet packet machine learning approaches for drought modeling, Environmental Earth Sciences (2020) 79:221* https://doi.org/10.1007/s12665-020-08971-y *Springer,IF-2.01*
14. Nizar, S., Dodamani, B.M., "Satellite-based top-down Lagrangian approach to quantify aerosol emissions over California", Quarterly Journal of the Royal Meteorological Society pril 0 0, vol146,iue 79,pp 166-1635, : http://dx.doi.org/10.1002/qj.3756
15. Pathak, A.A., Dodamani, B.M, "Trend analysis of rainfall, rainy days and drought: a case study of Ghataprabha River Basin, India", Modeling Earth Systems and Environment,2020, vol 6, pp 1357-1372 https://doi.org/10.1007/s40808-020-00798-7
16. Praveen, K.M., D. Karmakar & C. Guedes Soares, (2019). Influence of different support conditions on the hydroelastic behaviour of floating thick elastic plate, *Journal of Marine Science and Application (Springer), 18(3), 295-313.*
17. Divya Anand, S.Shrihari, H. Ramesh. 2020. Predictive simulation of leachate transport in a coastal lateritic aquifer when remediated with reactive barrier of nano iron. Groundwater for Sustainable Development. https://doi.org/10.1016/j.gsd.2020.100382
18. Venkatesh K, Ramesh H. 2020. Modelling stream flow and soil erosion response considering varied land practices in a cascading river basin. Journal of Environmental Management. 264, 110448 (https://doi.org/10.1016/j.jenvman.2020.110448).
19. Venkatesh K, Preethi K, Ramesh H. 2019. Evaluating the effects of forest fire on water balance using fire susceptible maps. J. Ecological Indicators, doi: https://doi.org/10.1016/j.ecolind.2019.105856
20. Nalluri Ahalya and H. Ramesh. 2019. "A comparative study of radiometric corrections on multispectral and panchromatic images." Asian Journal for Convergence in Technology (AJCT) (2019).
21. Nitya R. Govind and Ramesh H., (2019). The impact of spatio-temporal patterns of land use land cover and land surface temperature on an urban cool island: A case study of Bengaluru". Journal of Environmental Monitoring and Assessment, https://doi.org/10.1007/s10661-019-7440-1
22. Venkateshwarlu & D. Karmakar, (2019). Wave scattering by vertical porous block placed over flat and elevated seabed, *Marine Systems and Ocean Technology (Springer),*14(2-3), 85-109.
23. Somasundram S., Panneer Selvam R. and D. Karmakar, (2019), Hydroelastic analysis of a truss pontoon mobile offshore base, *Ocean Systems Engineering, 9(4), 423-448.*
24. Praveen, K.M., D. Karmakar & C. Guedes Soares, (2020). Wave Interaction with floating elastic plate based on Timoshenko-Mindlin plate theory, *Journal of Offshore Mechanics and Arctic Engineering (ASME), 142(1), 011601-1-15.*
25. V. Venkateshwarlu & D. Karmakar, (2020). Influence of impermeable elevated bottom on the wave scattering due to multiple submerged porous structure, *Journal of Applied Fluid Mechanics*, 13(1), 371 – 385.
26. Vijay, K.G., D. Karmakar & C. Guedes Soares, (2020). Long-term response analysis of TLP-type offshore floating wind turbine, *ISH Journal of Hydraulic Engineering (Taylor and Francis), 26(1), 31-43.*
27. V. Venkateshwarlu & D. Karmakar, (2020), Significance of seabed characteristics in the presence of submerged stratified porous block,

Coastal Engineering Journal (Springer), 62(1), 1-22.

28. Praveen, K.M., D. Karmakar & C. Guedes Soares, (2020), Hydroelastic analysis of periodic arrays of multiple articulated floating elastic plate, *Ships and Offshore Structures (Taylor and Francis), 15(3), 280-295.*
29. Praveen, K.M., D. Karmakar & C. Guedes Soares, (2019), Influence of different support conditions on the hydroelastic behaviour of floating thick elastic plate, *Journal of Marine Science and Application (Springer),*
30. A I Shirkol and Nasar, T (2019). Coupled BEM and FEM for the analysis of floating elastic plate with an arbitrary shape. Ships and Offshore Structures. https://doi.org/10.1080/17445302.2018.1564540.
31. Nasar, T., Sannasiraj, S.A. and Sundar, V. (2020). Performance assessment of porous baffle on liquid sloshing dynamics in a barge carrying liquid tank. *Ships and Offshore Structures,* 10, 1-14. https://doi.org/10.1080/17445302.2020.1781746
32. Nasar, T., Sannasiraj, S.A. and Sundar, V. (2020). Effect of porous baffle on sloshing pressure distribution in a barge mounted container subjected to regular wave excitation. *International Journal of Naval Architecture and Marine Engineering*, 17, 1-30. https://doi.org/10.3329/jname.v17i1.42001
33. Nasar, T. and Sannasiraj, S.A. (2019). Sloshing dynamics and performance of porous baffle arrangements in a barge carrying liquid tank. *Ocean engineering*, 183, 24-39. https://doi.org/10.1016/j.oceaneng.2019.04.022
34. N. Muralidhar, K. Vadivuchezhian, V. Arumugam and I. Srinivasula Reddy "A Study on Areca nut Husk Fibre Extraction, Composite Panel Preparation and Mechanical Characteristics of the Composites", Journal of The Institution of Engineers (India): Series D, Vol. 100, pp 135-145, (2019), https://doi.org/10.1007/s40033-019-00186-1.
35. N. Muralidhar, K. Vadivuchezhian, V. Arumugam and I. Srinivasula Reddy "Dynamic mechanical characterization of epoxy composite reinforced with Arecanuthusk fiber", archive of mechanical engineering, Vol. 67, pp 57-72, (2020), DOI: 10.24425/ame.2020.131683.
36. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Finite Element Modeling and experimental validation of rectangular pin buckle arrestors for offshore pipelines." Mechanics Based Design of Structures and Machines, 2020,. https://doi.org/10.1080/15397734.2020.1725562.
37. Raja Pandi R., Vadivuchezhian Kaliveeran, "Finite element analysis of rig used for fretting experiments." Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.09.126.
38. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Effective buckle arrestors for offshore pipepines." Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.09.112.
39. Muralidhar N., Vadivuchezhian Kaliveeran, Arumugam V. and I. Srinivasula Reddy, "Flexural Strength and Flexural modulus of Epoxy Composites Reinforced with Arecanut Husk Fibre and glass fibre." Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.09.109.
40. Murugan N., Vadivuchezhian Kaliveeran, M. K. Nagaraj, "Effect of grooves on the static strength of Tubular T joints of Offshore Jacket structures." Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.10.132.
41. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Analysis and design of inclined buckle arrestors for offshore pipeline." Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.09.113.

42. Ramachandra Rao N., Vadivuchezhian Kaliveeran, “Finite element modeling and experimental validation of rectangular pin buckle arrestors for offshore pipelines.” Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.09.207.
43. Palanikumar P., Gnanasekaran N., Subrahmanya K., Vadivuchezhian Kaliveeran, “Identification of Effective location of Thermocouples from the Contact Interface.” Materials Today: Proceedings, 2019, https://doi.org/10.1016/j.matpr.2019.12.373.
44. Shwetha H R and D Nagesh Kumar., 2020. Estimation of daily actual evapotranspiration using vegetation coefficient approach for clear and cloudy sky conditions, *IEEE selected topics on applied earth observations and remote sensing*, 13, 2385-2395, (DOI: 10.1109/JSTARS.2020.2989422). (Impact factor: 3.392).
45. Vinod Tamburi, Amba Shetty, and S. Shrihari “Spatial variability of vertisols nutrients in Deccan plateau region of North Karnataka, India” in Environment, Development and Sustainability https://link.springer.com/article/10.1007%2Fs10668-020-00700-6
46. Nesru, M., Nagaraj, M.K. & Shetty, A. Assessment of consumption and availability of water in the upper Omo-Gibe basin, Ethiopia. Arab J Geosci 13, 13 (2020). https://doi.org/10.1007/s12517-019-4897-8
47. Nesru, M., Shetty, A. & Nagaraj, M.K. Multi-variable calibration of hydrological model in the upper Omo-Gibe basin, Ethiopia. Acta Geophys. 68, 537–551 (2020). https://doi.org/10.1007/s11600-020-00417-0

DEPARTMENT OF CHEMICAL ENGINEERING

1. K. Sekar Pragadeesh; Iyyaswami Regupathi; D. RubenSudhakar; Study of devolatilization during chemical looping combustion of large coal and biomass particles; Journal of the Energy Institute; DOI: https://doi.org/10.1016/j.joei.2020.01.008; Volume 93, Issue 4, August 2020, Pages 1460-1472
2. Sampath Charanyaa, Prasanna Devarabhat Belur, Iyyasami Regupathi; Effect of Intrinsic and Extrinsic Factors on the Storage Stability of Sardine Oil; Current Research in Nutrition and Food ScienceJournal; http://dx.doi.org/10.12944/CRNFSJ.7.3.14; Published online on30/10/2019.
3. Rashid, Z., Wilfred, C.D., Regupathi Iyyaswami, Appusamy, A., Thanabalan, M. (2019) Investigating the solubility of petroleum asphaltene in ionic liquids and their interaction using COSMO-RS. Journal of Industrial and Engineering Chemistry, DOI: 10.1016/j.jiec.2019.06.034 ; Volume 79, 25 November 2019, Pages 194-203
4. Bommenahalli Shashidhara Rashmi and Regupathi Iyyaswami(2019) Aqueous two phase based selective extraction of mannose/glucose specific lectin from Indian cultivar of Pisum sativum seed. Journal of Chromatography B, DOI: 10.1016/j.jchromb.2019.03.019; Volumes 1114–1115, 1 May 2019, Pages 13-23
5. Debika Ghatak and Regupathi Iyyaswami (2019) Selective encapsulation of quercetin from dry onion peel crude extract in reassembled casein particles, Food and Bioproducts Processing, DOI: 10.1016/j.fbp.2019.03.003; Volume 115, May 2019, Pages 100-109
6. Swapnali S. Pawar I Regupathi and Prasanna B.D. (2019) Selective extraction of lactoferrin from acidic whey using CTAB/n-heptanol reverse micellar system, Journal of Food Science and Technology, DOI: 10.1007/s13197-019-03738-1; 56, pages2553–2562 (April 2019)

7. Rizwan Safdar, Nirmala Gnanasundaram, Iyyasami Regupathi, Appusami Arunagiri, Sofia Papadimitriou, Murugesan Thanabalan, (2019) Preparation, characterization and stability evaluation of ionic liquid blended chitosan tripolyphosphate microparticles, Journal of Drug Delivery Science and Technology, DOI: 10.1016/j.jddst.2019.01.027, Volume 50, April 2019, Pages 217-225
8. PurushottamPatil and C. Sankar Rao, Enhanced PID Controller for Non-Minimum Phase Second Order Plus Time Delay System, Chemical Product and Process Modeling, Volume 14, Issue 3, pp. 1-13, 2019. doi.org/10.1515/cppm-2018-0059.
9. Prabhuteja Y. and C. Sankar Rao, Design of Robust PI Controller with Decoupler for a Fluid Catalytic Cracking Unit, Industrial Engineering and Chemistry Research, Volume 58, Issue 45, 20722–20733, 2019. doi.org/10.1021/acs.iecr.9b04770
10. Mosangi Satya Narayana, Gangasalam Arthanareeswaran and Chinta Sankar Rao, Dynamic performance comparison of two configurations of middle vessel batch distillation column for the separation of ethanol/propanol/butanol mixture, Asia Pacific Journal of Chemical Engineering, Special research theme article, 2020. DOI: 10.1002/apj.2421
11. Abhishek Nayak, Indra Neel Pulidindi and Chinta Sankar Rao, Novel strategies for glucose production from biomass using heteropoly acid catalyst, Renewable Energy, Volume 159, pp. 215-220. 2020. https://doi.org/10.1016/j.renene.2020.05.129
12. Sanjith S. Anchan and C. Sankar Rao, Robust decentralized proportional–integral controller design for an activated sludge process, Asia-Pacific Journal Of Chemical Engineering, 2020, https://doi.org/10.1002/apj.2531
13. Lister H. Falleiro and B. Ashraf Ali, "Computational modeling of hydrodynamics and mixing in a batch stirred vessel", Chemical Engineering Communications, DOI:10.1080/00986445.2019.1694919, 2019.
14. Akella Sriniketh and B. Ashraf Ali, "Computational investigation of hydrodynamics and solid circulation in fluidized bed column", Chemical Engineering Communications, DOI: 10.1080/00986445.2019.1671831, 2019.
15. Chaitra Shenoy, Sunaina S Patil, Govardhan P, Shourya Atmuri, Hari Prasad Dasari, Saidutta M B, Harshini Dasari, "Studies on the SOC perovskite electrode materials for soot oxidation activity "Emission Control Science and Technology, DOI:10.1007/s40825-019-00144-z, Vol 5, pages342–352(2019).
16. Irfana Shajahan, Govardhan P, Hari Prasad Dasari, "Dilatometer Studies of Praseodymium Doped Ceria: Effect of synthesis methods on sintering behavior" Materials Chemistry and Physics (2020) https://doi.org/10.1016/j.matchemphys.2019.122211Vol 240, 15 January 2020.
17. Sunaina Patil, Hari Prasad Dasari , Harshini Dasari "Effect of Nd-doping on soot oxidation activity of Ceria-based nanoparticles synthesized by Glycine Nitrate Process" 2019 Nano Structure and Nano objects https://doi.org/10.1016/j.nanoso.2019.100388Vol 20, October 2019, 100388.
18. Anjana P. Anantharaman, Hari Prasad Dasari, Harshini Dasari, G. Uday Bhaskar Babu "Effect of ionic radius on soot oxidation activity for ceria-based binary metal oxides (2019) https://doi.org/10.1002/apj.2316Volume 14,20 May 2019.
19. Priyanka Bhat, Goutam-Mohan Pawaskar, Ritu Raval, Stefan Cord-Landwehr, Bruno Moerschbacher, Keyur Raval, "Expression of Bacillus licheniformis chitin deacetylase in E. coli pLysS: Sustainable production, purification and characterization", International journal of biological

macromolecules, doi.org/10.1016/j.ijbiomac.2019.03.14

20. Vishnu Manirethan, Niharika Gupta, Raj Mohan Balakrishnan, Keyur Raval, "Batch and continuous studies on the removal of heavy metals from aqueous solution using biosynthesised melanin-coated PVDF membranes", Environmental Science and Pollution Research, doi.org/10.1007/s11356-019-06310-8
21. Vishnu Manirethan, Keyur Raval, Raj Mohan Balakrishnan, "Adsorptive removal of trivalent and pentavalent arsenic from aqueous solutions using iron and copper impregnated melanin extracted from the marine bacterium Pseudomonas stutzeri", Environmental Pollution, doi.org/10.1016/j.envpol.2019.113576
22. Rohit P Kalnake, DVR Murthy, Akshay Achar, Keyur Raval, "Residence Time Distribution Studies in a Modified Rotating Packed Disc Contactor: Mathematical Modeling and Validation", International Journal of Chemical Reactor Engineering, doi.org/10.1515/ijcre-2019-0161
23. Juan C. Colmenares, Swaraj R. Pradhan, Vaishakh Nair, Dimitrios A. Giannakoudakis and Dmytro Lisovytskiy, Design and Development of TiO2 Coated Microflow Reactor for Photocatalytic Partial Oxidation of Benzyl Alcohol, Molecular Catalysis, 2020, DOI: 10.1016/j.mcat.2020.110884, vol 486, pp 110884.
24. Zoi Christina Kampouraki, Dimitrios A. Giannakoudakis, Vaishakh Nair, Ahmad Hosseini-Bandegharaei, Juan Carlos Colmenares, and Eleni A. Deliyanni, Metal Organic Frameworks as Desulfurization Adsorbents of DBT and 4,6-DMDBT from Fuels, Molecules, 2019, DOI: 10.3390/molecules24244525, vol 24, pp 4525.
25. Dimitrios A. Giannakoudakis, Vaishakh Nair, Ayesha Khan, Eleni A. Deliyanni, Juan Carlos Colmenares, and Konstantinos S. Triantafyllidis, Additive-free photo-assisted selective partial oxidation at ambient conditions of 5-hydroxymethylfurfural by manganese (IV) oxide nanorods, Applied Catalysis B: Environmental, 2019, DOI: 10.1016/j.apcatb.2019.117803, vol 256, pp 117803.
26. Kezia Buruga, Hocheol Song, Shang Jin, Nanthi Bolan, Jagannathan T. Kalathi, Ki-Hyun Kim. (2019) A review on functional polymer-clay based nanocomposite membranes for treatment of water, Journal of Hazardous Materials 379, 120584. doi: https://doi.org/10.1016/j.jhazmat.2019.04.067
27. Buruga, K.; Kalathi, J. T. (2019) Synthesis of poly(styrene-co-methyl methacrylate) nanospheres by ultrasound-mediated Pickering nanoemulsion polymerization. Journal of Polymer Research, 26 (9), 210. (doi: https://doi.org/10.1007/s10965-019-1871-9)
28. Kishor Kumar, M. J., Kalathi, J. T. (2019) PMMA-LZO Composite Dielectric Film with an Improved Energy Storage Density. Journal of Electronic Materials, 1-8. (doi: https://doi.org/10.1007/s11664-019-07580-1)
29. Kishor Kumar, M. J., Kalathi, J. T. (2019) Interface Dominated Dielectric Response of PS-Fe_3O_4 Patchy Microspheres. Langmuir 35 (43), 13923-13933. (doi: https://doi.org/10.1021/acs.langmuir.9b02117)
30. MPJ Kizhakedathil, R Bose, Prasanna D BelurCalcium oxalate degrading thermophilic oxalate oxidase from newly isolated *Fusarium oxysporum RBP3*, Biocatalysis and Agricultural Biotechnology, 101583.March 2020
31. Prajna Rao Krishnapura and Prasanna D. BelurL-Asparaginase production using solid-state fermentation by an endophytic*Talaromycespinophilus* isolated from rhizomes of Curcuma amada, Journal of Pure and Applied Microbiology, 14(1). Jan 2020

32. Balaji Venkataraman, Shreesh Ojha, Prasanna D. Belur, Bhoomendra Bhongade, Vishnu Raj, Peter D. Collin, Thomas E. Adrian, Sandeep B. Subramanya (2020) Phytochemical drug candidates for the modulation of peroxisome proliferator-activated receptor γ in inflammatory bowel diseases, Phytotherapy Research. 2020;1–20, DOI: 10.1002/ptr.6625
33. Murray D Dunn, Prasanna D Belur, Antoinette P Malan. In vitro liquid culture and optimization of Steinernemajeffreyense using shake flasks, BioControl, DOI :10.1007/s10526-019-09977-7, Dec 2019.
34. M. Manasa, Pranay R. Chandewar, Hari Mahalingam, Photocatalytic degradation of ciprofloxacin & norfloxacin and disinfection studies under solar light using boron & cerium doped TiO_2 catalysts synthesized by green EDTA-citrate method, Catalysis Today, online March 18, 2020. 10.1016/j.cattod.2020.03.018
35. Das, S., Mahalingam, H., Novel immobilized ternary photocatalytic polymer film based airlift reactor for efficient degradation of complex phthalocyanine dye wastewater, (2020), Journal of Hazardous Materials, 383, art. no. 121219,DOI: 10.1016/j.jhazmat.2019.121219
36. Das, S., Mahalingam, H., Dye degradation studies using immobilized pristine and waste polystyrene-TiO_2/rGO/g-C_3N_4 nanocomposite photocatalytic film in a novel airlift reactor under solar light, (2019) Journal of Environmental Chemical Engineering, 7 (5), art. no. 103289.DOI:10.1016/j.jece.2019.103289
37. Das, S., Mahalingam, H., Exploring the synergistic interactions of TiO_2, rGO, and g-C_3N_4 catalyst admixtures in a polystyrene nanocomposite photocatalytic film for wastewater treatment: Unary, binary and ternary systems, (2019) Journal of Environmental Chemical Engineering, 7 (4), art. no. 103246, DOI: 10.1016/j.jece.2019.103246
38. Das, S., Mahalingam, H., Reusable floating polymer nanocomposite photocatalyst for the efficient treatment of dye wastewaters under scaled-up conditions in batch and recirculation modes (2019), Journal of Chemical Technology and Biotechnology, 94 (8), pp. 2597-2608.DOI: 10.1002/jctb.6069
39. Vijayanandan, A.S., Raj Mohan, B. (2020) “Photo, Electrical and Magnetic Properties of Cobalt Oxide Nanoparticles through Biological Mechanism of Endophytic Fungus *Aspergillus nidulans*” Applied Physics A
40. Vrushali V Kadam, Raj Mohan Balakrishnan., JagadeeshBabu Ponnan Ettiyappan (2019) “Fluorometric detection of Bisphenol A using β-cyclodextrin functionalized ZnO QDs” Environmental Science and Pollution Research. DOI: 10.1007/s11356-020-07797-2.
41. Vijayanandan, A.S., Valappil, R.S.K., Raj Mohan, B., (2019). Evaluation of Photothermal Properties for Absorption of Solar Energy by Co3O4 Nanofluids Synthesized using Endophytic Fungus *Aspergillus nidulans*. Sustain. Energy Techn. (Accepted).
42. Valappil, R.S.K., Vijayanandan, A.S., Raj Mohan, B., (2019). Decolorization of Reactive Blue 220 aqueous solution using fungal synthesized Co3O4 nanoparticles. J Water. Supply Res. T. doi: 10.2166/aqua.2019.086.
43. Bui Xuan Thanh, Eldon R Rene, Raj Mohan Balakrishnan (2019) "Acetaminophen micropollutant: Historical and current occurrences, toxicity, removal strategies and transformation pathways in different environments" Chemosphere (doi.org/10.1016/j. chemosphere.2019.124391)
44. Chandrika Gupta, Uddandarao Priyanka, Arivalagan Pugazhendhi, Raj Mohan Balakrishnan* (2019) Mycosensing of soil contaminants by *Ganoderma lucidum* and *Omphalotus subilludens* including the insights on growth media requirement, *Biocatalysis and Agricultural Biotechnology* DOI:10.1016/j.bcab.2019.101239.

45. Shiljashree Vijay, Uddandarao Priyanka and Raj Mohan Balakrishnan* (2019) "Photocatalytic Degradation of Irgalite Violet Dye using Nickel Ferrite Nanoparticles" Journal of Water Supply: Research and Technology - AQUA

46. Diksha Sharma, P E JagadeeshBabu, Rakshana D., Raj Mohan Balakrishnan (2019) "One step synthesis of silver nanowires using fructose as a reducing agent and its antibacterial and antioxidant analysis". Mater. Res. Express (doi.org/10.1088/2053-1591/ab170a)

47. M.K. Poddar, H.Y. Ryu, N.P. Yerriboina, Y.A. Jeong, J.H. Lee, T.G. Kim, J.H. Kim, J.D. Park, M.G. Lee, C.Y. Park, S.J. Han, J.G. Choi, J.G. Park, Nanocatalyst-induced hydroxyl radical (·OH) slurry for tungsten CMP for next-generation semiconductor processing, J. Mater. Sci. 55(8) (2020) 3450–3461. https://doi.org/10.1007/s10853-019-04239-4.

48. K.H. An, N.P. Yerriboina, M.K. Poddar, T.G. Kim, D.K. Lee, T.H. Jung, J.H. Lee, H.H. Lee, J.G. Park, Hybrid DHF and N_2 jet spray cleaning for silicon nitride and metal layer DRAM patterns, Microelectron. Eng. 220 (2020) 111171. https://doi.org/10.1016/j.mee.2019.111171.

49. J.H. Lee, M.K. Poddar, K.M. Han, H. Y. Ryu, N. P. Yerriboina, T. G. Kim, Y. W., S. Hamada, H. Hiyama, J. G. Park, Comparative evaluation of organic contamination sources from roller and pencil type PVA brushes during the Post-CMP cleaning process, Polymer Testing, 2020,106669.https://doi.org/10.1016/j.polymertesting.2020.106669.

50. Veni Ramachandran Nair, Vidya Shetty Kodialbail ,Floating bed reactor for visible light induced photocatalytic degradation of Acid Yellow 17 using polyaniline-TiO_2 nanocomposites immobilized on polystyrene cubes. *Environ Sci Pollut Res* 27, 14441–14453 (2020). https://doi.org/10.1007/s11356-020-07959-

51. Gangamma S., Sampada D., Panigrahi M., Tripathi D., Prasanna L. Krishnaja S, Vishaalini Kamali R., and Veekshitha (2020) Airborne bacteria and levoglucosan in Indian biomass fuel burning houses. *American Journal of Respiratory Critical Care Medicine*;201: A1803 (Impact factor 16.49) doi/pdf/10.1164/ajrccm-conference.2020.201.1_MeetingAbstracts.A1803

52. Gangamma S., Sampada D., Panigrahi M., Vishaalini Kamali R, and Veekshitha (2020) Air pollution and biomass fuel burning in Indian cities: Levoglucosan and Carbohydrates. *American Journal of Respiratory Critical Care Medicine*; 201: A1805 (Impact factor 16.49) doi/pdf/10.1164/ajrccm-conference.2020.201.1_MeetingAbstracts.A1805

53. Gangamma S. and Pradhan. P. (2019) Cigarette smoking and Lung adenocarcinoma: Cell of origin based re-analysis of gene expression data. *American Journal of Respiratory Critical Care Medicine*;199: A1837 (Impact factor 16.49)

54. Mishra, R., Pandikannan, K., Gangamma, S., Raut, A.A. and Kumar, H., 2020. Imperative role of particulate matter in innate immunity during RNA virus infection. *bioRxiv*.doi: https:/doi.org/ 10.1101/2020.03.28.013169

55. HM Kadlimatti, BR Mohan, MB Saidutta, "Bio-oil from microwave assisted pyrolysis of food waste-optimization using response surface methodology", Biomass and Bioenergy, DOI: 10.1016/j.biombioe.2019.01.014123, Vol 123, pp 25-3, April 2019

56. HM Kadlimatti, B Raj Mohan, MB Saidutta, "Microwave-assisted pyrolysis of food waste: optimization of fixed carbon content using response surface methodology", Biofuels, DOI: 10.1080/17597269.2019.1573609, May 2019.

57. Mugunthan E, MB Saidutta, PE Jagadeeshbabu,"Photocatalytic activity

of ZnO-WO3 for diclofenac degradation under visible light irradiation", Journal of Photochemistry and Photobiology A: Chemistry, DOI: 10.1016/ j.jphotochem.2019.111993383, Vol 383, Oct., 2019

DEPARTMENT OF CIVIL ENGINEERING

1. Kolathayar, S., Narasimhan, S., Kamaludeen, R., & Sitharam, T. G. (2020). Performance of Footing on Clay Bed Reinforced with Coir Cell Networks. International Journal of Geomechanics, 20(8), 04020106. DOI: 10.1061/(ASCE)GM.1943-5622.0001719
2. Ramkrishnan, R., Sreevalsa, K., & Sitharam, T. G. (2020). Strong Motion Data Based Regional Ground Motion Prediction Equations for North East India Based on Non-Linear Regression Models. *Journal of Earthquake Engineering*, 1-21.
3. Deepa Devaraj, R. Ramkrishnan, T. Prabu, Sreevalsa Kolathayar and T. G. Sitharam (2020) Synthesis of Linear JTFA Based Response Spectra for Structural Response and Seismic Reduction Measures for North-East India, Journal of Earthquake and Tsunami,https://doi.org/10.1142/S1793431120500232
4. Sengupta, S., & Kolathayar, S. (2020). Evaluation of Liquefaction Potential of Soil at a Power Plant Site in Chittagong, Bangladesh. International Journal of Geotechnical Earthquake Engineering (IJGEE), 11(1), 1-16.
5. Vinoth Srinivasan, Tushar Gupta, T.A. Ansari, T.N. Singh., 2020. An experimental study on rock damage and its influence in rock stress memory in a metamorphic rock - Bulletin of Engineering Geology and the Environment – DOI:https://doi.org/10.1007/s10064-020-01813-y
6. Vinoth Srinivasan, Ashutosh Tripathy, Tushar Gupta, T.N. Singh. 2020. An investigation on the influence of thermal damage on the physical, mechanical and acoustic behaviour of an Indian Gondwana Shale– Rock Mechanics and Rock Engineering. Vol. 53,pp.2865-2885. DOI: https://doi.org/10.1007/s00603-020-02087-2
7. Ningappa, A., Suresha, S.N, 2020, Laboratory evaluation of long-term aging effect on linear viscoelastic and fatigue properties of FAM mixtures, Construction and Building Materials, 241,DOI: 10.1016/j.conbuildmat.2020.118087
8. Kumar, V.H., Suresha, S.N., 2019, Investigation of aging effect on asphalt binders using thin film and rolling thin film oven test, Advances in Civil Engineering Materials, 8 (1), pp. 637-654. DOI: 10.1520/ACEM20190119
9. Patil, B., Bharath Kumar, B.R., Bontha, S., Balla, V.K., Powar, S., Hemanth Kumar, V., Suresha, S.N., Doddamani, M., 2019, Eco-friendly lightweight filament synthesis and mechanical characterization of additively manufactured closed cell foams, Composites Science and Technology, 183, DOI: 10.1016/j.compscitech.2019.107816
10. Pavan, G. S., Ullas, S. N., Nanjunda Rao, K. S., 2020, Interfacial behavior of cement stabilized rammed earth: Experimental and numerical study, Construction and Building Materials, 257, DOI: 10.1016/j.conbuildmat.2020.119327
11. Arun Kumar Thalla and Adhirashree Vannarath (2020) "Occurrence and environmental risks of nonsteroidal anti-inflammatory drugs in urban wastewater in the southwest monsoon region of India", Environmental Monitoring and Assessment (Springer), Vol. (192) https://doi.org/10.1007/s10661-020-8161-1
12. Adhirashree Vannarath and Arun Kumar Thalla (2019) "Evaluation, ranking, and selection of pretreatment methods for the conversion of biomass to biogas using multi-criteria decision-making approach", Environment Systems and Decisions (Springer) [Online November 2019] https://doi.org/10.1007/s10669-019-09749-9
13. Arun Kumar Thalla, C. P. Devatha, K. Anagh and Elsa Sony (2019) "Performance evaluation of horizontal

and vertical flow constructed wetlands as tertiary treatment option for secondary effluents", Applied Water Science (Springer), Vol.9, pp 1-9 [Online July 2019] https://doi.org/10.1007/s13201-019-1014-9

14. Harshit Khandelwal, Arun Kumar Thalla, Sunil Kumar and Rakesh Kumar (2019) "Life cycle assessment of municipal solid waste management options for India" Bioresource Technology (Elsevier), Vol. 288, [September 2019 (Hard); May 2019 (Online)] https://doi.org/10.1016/j.biortech.2019.121515
15. Saha, S. and Rajasekaran, C. (2020) "Strength and Shrinkage Properties of Heat-Cured Fly Ash–Based Geopolymer Mortars Containing Fine Recycled Concrete Aggregate," Journal of Testing and Evaluation, https://doi.org/10.1520/JTE20180799. (In Press)
16. Saha, S, N. Shaik, and Rajasekaran, C. (2020) "Volume Change Characteristics of Eco-Friendly Mortar Mixes Produced with Geopolymeric Binder and Recycled Fine Aggregate," Journal of Testing and Evaluation https://doi.org/10.1520/JTE20180316 (In Press)
17. Rajeshwari R, Sukomal Mandal and Rajasekaran C. (2020) "Compressive Strength Prediction of HVFA Control Concrete Using ANN and PSO-ANN Models", International Journal of Ecology and Development, 35 (1), 59 - 74.
18. Mohan, M. and Chandra, S. (2020). "Influence of Major Stream Composition on Critical Gap at Two-Way Stop-Controlled Intersections - A Case Study". Transportation Letters: the International Journal of Transportation Research, 12(1), 1-8. https://doi.org/10.1080/19427867.2018.1494896
19. Anila Cyril, Raviraj H. Mulangi and Varghese George (2019). "Performance Optimization of Public Transport Using Integrated AHP-GP Methodology". Urban Rail Transit, Vol. 5, No. 2, 133-144.
20. Anila Cyril, Raviraj H. Mulangi and Varghese George (2019). "Development of a GIS-Based Composite Public Transport Accessibility Index". Journal of Urban and Environmental Engineering, Vol. 13 Issue 2, p235-245
21. Anjali M.S., Shrihari S. and Sunil B.M, (2019) "Potential valorisation of ferrous slag in the treatment of water and wastewater: A review", Vol. 8.,pp. 55-69
22. Anjali, M. S., Shrihari, S. and Sunil, B. M.(2019) "Experimental studies of slag filter for drinking water treatment" J. Environmental Technology & Innovation, Elsevier, Vol. 15 (2019), pp. 1-13
23. Vinod Tamburi, Amba Shetty and Shrihari S. (2019) "Geostatistical Analysis on Spatial Variability of Soil Nutrients in Vertisols of Deccan Plateau Region of North Karnataka, India" International Journal of Mathematical, Engineering and Management Sciences, February, pp.283-295
24. Anjali M.S., Poorani M.,Shrihari S. and Sunil B.M, (2019)" Assessment of Ferrous Slag with Relevance to Physico-chemical Properties", Lecture Notes in Civil Engineering, Vol. 1.,pp. 377 - 384; doi 10.1007/978-981-15-0990-2_30.
25. M. Sreekumar & Tom V. Mathew (2020) Modelling multi-class disordered traffic streams using traversable distance: a concept analogous to fluid permeability, Transportmetrica A: Transport Science, 16:3, 1531-1551, DOI: 10.1080/23249935.2020.1764661.
26. S. Anaswara, R. Shivashankar and P. Hridya (2019), "A numerical study on interference of closely spaced strip footings on soils", International Journal of Civil Engineering Technology (IJCIET), IAEME publication, Volume 10, Issue 03, March 2019. pp 11-30,ISSN Print:0976-6308, ISSN online:0976-6316.
27. R.S.V. Rashma, R. Shivashankar & B.R. Jayalekshmi, "Behaviour of Reinforced Stone Columns Subjected to Static shear Loading Conditions", International Journal of Engineering &

Technology, [S.l.], v. 7, n. 4, p. 6928-6933, july 2019. ISSN 2227-524X. Available at: <https://www.sciencepubco.com/index.php/ijet/article/view/27587/15865> .doi:http://dx.doi.org/10.14419/ijet.v7i4.27587..

28. R. Shivashankar and Biji Chinnamma Thomas (2020), "Laterites and Lateritic Soils: Geology, Engineering Properties and Problems", Lowland Technology International Journal of the International Association of Lowland Technology (IALT): ISSN 1344-9656, Special Issue on HEGC1 (scopus indexed) EID: 2-s2.0-85081722678..
29. Anaswara, S., Lakshmy, G. S. and R. Shivashankar (2020). "Interference studies of adjacent strip footings on unreinforced and reinforced sands' Transportation Infrastructure Geotechnology Journal (2020), Springer Publishers, 27 pages (scopus indexed)https://doi.org/10.1007/s40515-020-00104-z.
30. Nayana N. Patil, H. M. Rajashekharswamy and R. Shivashankar (2020), "Vertical stresses in soil below a three dimensional structure due to reinforced soil structure interaction", International Journal on Emerging Technologies [ISSN (print) 0975-8364; 9online) 2249-3255], paper id IJERRT-1928-CE-Nayana N.Patil April 2020 (scopus indexed.
31. Pooja Raj., Kalaanidhi, S., Gowri, A. and Ravi Shankar, A.U. "Review of Methods for Estimation of Passenger Car Unit Values of Vehicles" ASCE . https://ascelibrary.org/doi/pdf/10.1061/JTEPBS.0000234.
32. Avinash H Talkeri and A U Ravi Shankar. (2019) "A study on Initial setting time and the Mechanical properties of AASC using the PS Ball as Fine aggregate." International Journal of Pavement Research and Technology, Vol. 12, pp 659-663. DOI: 10.1007/s42947-019-0078-0.
33. G Shiva Kumar and A U Ravi Shankar. (2019) "Evaluation of Workability and Mechanical Properties of Stone Matrix Asphalt Mixtures made with and without Stabilizing Additives." Transportation Infrastructure Geotechnology, pp 1 -14. https://doi.org/10.1007/s40515-019-00098-3.
34. Panditharadhya B J, Raviraj H Mulangi, A U Ravi Shankar (2019)" Impact on Workability and Setting Time of Portland Cement Concrete with Secondary Aluminium Dross as an alternative Binder", International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8, Issue-6S3, September 2019.DOI: 10.35940/ijeat.F1263.0986S319
35. Amulya,S., Ravi Shankar, A.U., Aditya Kumar, Kumar H P.(2020)"Utilization of Lateritic Soil Stabilized With Alkali Solution and Ground Granulated Blast Furnace Slag as a Base Course In Flexible Pavement Construction, International Journal of Pavement Research and Technology https:/doi.org/10.1007/s42947-020-0251-5
36. Amulya, S. and Ravi Shankar, A.U.,(2020)" Replacement of Base Course with Stabilized Lateritic Soil Using Ground Granulated Blast Furnce Slag and Alkali Solution in Flexible PavementConstruction", Indian Geotechnical Journal. DOI:10.1007/s40098-020-00426
37. Amulya,S and Ravi Shankar, A.U.(2020)"Use of Stabilized Laterictic and Black Cotton Soils as Base Course Replacing Conventional Granular layer in Flexible Pavement", International Journal of Geosynthetics and Ground Engineering. htpps:/doi.org/10.1007/s40891-020-0184-8.
38. Avinash, H.T. and Ravi Shankar, A.U.(2019)" A study on Initial setting Time and Mechanical Properties of AASC using P S Ball as Fine Aggregate", International Journal of Pavement Research and Technology. https://doi.org/10.1007/s42947-019-0078-0.39.
39. Abhishek Dhabal, Samaresh P. and Ravi Shankar,A.U. " Effects of crimped steel fiber on fresh and hardened properties of medium strength concrete ", International Research Journal of Engineering and

Technology(IRJET), Vol.7, Issue5, May 2020.

40. Shreyasvi C, Venkataramana K and Chopra S (2019): "Local site effect incorporation in probabilistic seismic hazard analysis – A case study from southern peninsular India, an intraplate region", *Soil Dynamics and Earthquake Engineering*, *Elsevier*, Volume 123, pp.381-398. https://doi.org/10.1016/j.soildyn.2019.04.035.

41. Manjunath. R, Mattur C. Narasimhan and Umesha K.M (2019), "Studies on High Performance Self-Compacting Alkali Activated Slag Concrete Mixes subjected to Aggressive Environments and Sustained Elevated Temperatures", Construction and Building Materials, Elsevier, Volume 229, pp 1-19, https://doi.org/10.1016/j.conbuildmat.2019.116887

DEPARTMENT OF COMPUTER ENGINEERING

1. Joseph, C.T., Chandrasekaran, K., "IntMA: Dynamic Interaction-aware resource allocation for containerized microservices in cloud Environments" Journal of Systems Architecture, (2020)
2. Raghavan, S., Gangadhar, Y., Pattar, V., Chandrasekaran, K. "Multi-ENPS simulator support tool with automatic file inter-conversion and multi-membrane execution" BioSystems, (2020)
3. Martin, J.P., Kandasamy, A., Chandrasekaran, K. "Mobility aware autonomic approach for the migration of application modules in fog computing environment" Journal of Ambient Intelligence and Humanized Computing, (2020)
4. Seetharamatantry, H., Murulidhar, N.N., Chandrasekaran, K. "Impact analysis of legacy system migration to the cloud environment: A focused study" International Journal of Advanced Trends in Computer Science and Engineering, 9 (1), (2020)
5. Joseph, C.T., Chandrasekaran, K. "Straddling the crevasse: A review of microservice software architecture foundations and recent Advancements" Software - Practice and Experience, 49 (10), pp. 1448-1484. (2019)
6. K Ganesh Reddy, P Santhi Thilagam "5 TRUST-BASED HYBRID IDS FOR RUSHING ATTACKS IN WIRELESS MESH NETWORKS" Recent Advances in Computer Based Systems, Processes and Applications: Proceedings of Recent Advances in Computer based Systems, Processes and Applications (NCRACSPA-2019), pp. 49, (2019)
7. Achar, R., Thilagam, P.S., Acharya, S. "Broker-based mechanism for cloud provider selection" International Journal of Computational Science and Engineering, 22 (1), pp. 50-61. (2020)
8. Siva Kumar, D.V.N., Santhi Thilagam, P. "Searchable encryption approaches: attacks and challenges" Knowledge and Information Systems, 61 (3), pp. 1179-1207,(2019)
9. K Srinivasa, P Santhi Thilagam "Crime base: Towards building a knowledge base for crime entities and their relationships from online newspapers" Information Processing & Management-2019, 56(6), pp.102059, (2019)
10. Amit Praseed, P Santhi Thilagam "Multiplexed Asymmetric Attacks: Next-Generation DDoS on HTTP/2 Servers" IEEE Transactions on Information Forensics and Security-2019, 15, pp.1790-1800, (2019)
11. Divya Upadhyay, Ashwani Kumar Dubey, P Santhi Thilagam "A Probabilistic Model of Clock Offset Estimator (PMCOE) for Clock Synchronization in Wireless Sensor Network", Wireless Personal Communications-2019, 108(2), pp.995-1007, (2019)
12. D Upadhyay, AK Dubey, PS Thilagam "A statistical tool for time synchronization problem in WSN", Recent Patents on Engineering-2019, 13(2), pp.154-158, (2019)
13. Siva Kumar, D.V.N., Santhi Thilagam, P. "Approaches and challenges of privacy preserving search over encrypted data" Information Systems, 81, pp. 63-81(2019)
14. Praseed, A., Santhi Thilagam, P. "DDoS attacks at the application layer: Challenges and research perspectives

for safeguarding web applications" IEEE Communications Surveys and Tutorials, 21 (1), pp. 661-685, (2019)
15. Upadhyay, D., Dubey, A.K., Thilagam, P.S. "A statistical tool for time synchronization problem in WSN" Recent Patents on Engineering, 13 (2), pp. 154-158, (2019)
16. Tejaswi, V., Bindu, P.V., Santhi Thilagam, P. "Influence maximisation in social networks" International Journal of Computational Science and Engineering, 18 (2), pp. 103-117(2019)
17. Manjunatha, Annappa, B. "Real-time emergency event detection system for public safety using multi-source data" International Journal of Advanced Science and Technology, 29 (5 Special Issue), pp. 344-351(2020)
18. Das, P.K., Sinha, N., Annappa, B. "Data privacy preservation using aes-gcm encryption in Heroku cloud" International Journal of Recent Technology and Engineering, 8 (3), pp. 7544-7548,(2019)
19. Raghunath, B.R., Annappa, B. "Autonomic resource management framework for virtualised environments" International Journal of Internet Technology and Secured Transactions, 9 (4), pp. 491-516. (2019)
20. Kulkarni, A.K., Annappa, B. "Context Aware VM Placement Optimization Technique for Heterogeneous IaaS Cloud" IEEE Access, 7, pp. 89702-89713(2019)
21. Rao, R.S., Vaishnavi, T., Pais, A.R. "CatchPhish: detection of phishing websites by inspecting URLs" Journal of Ambient Intelligence and Humanized Computing, 11 (2), pp. 813-825. (2020)
22. Kittur, A.S., Pais, A.R. "A trust model based batch verification of digital signatures in IoT" Journal of Ambient Intelligence and Humanized (2020)
23. Rao, R.S., Vaishnavi, T., Pais, A.R. "PhishDump: A multi-model ensemble based technique for the detection of phishing sites in mobile devices" Pervasive and Mobile Computing, 60, Computing, 11 (1), pp. 313-327. (2019)
24. Mhala, N.C., Pais, A.R. "Contrast enhancement of Progressive Visual Secret Sharing (PVSS) scheme for gray-scale and color images using super-resolution" Signal Processing, 162, pp. 253-267. (2019)
25. Rao, R.S., Pais, A.R. "Detection of phishing websites using an efficient feature-based machine learning framework" Neural Computing and Applications, 31 (8), pp. 3851-3873(2019)
26. Kittur, A.S., Pais, A.R. "A new batch verification scheme for ECDSA $*$ signatures" Sadhana - Academy Proceedings in Engineering Sciences, 44 (7), (2019)
27. Rao, R.S., Pais, A.R. "Jail-Phish: An improved search engine based phishing detection system" Computers and Security, 83, pp. 246-267(2019)
28. Kumar, A., Pais, A.R. "A new combinatorial design based key pre-distribution scheme for wireless sensor networks" Journal of Ambient Intelligence and Humanized Computing, 10 (6), pp. 2401-2416(2019)
29. Routhu Srinivasa Rao, Alwyn Roshan Pais, "Two level filtering mechanism to detect phishing sites using lightweight visual similarity approach" Journal of Ambient Intelligence and Humanized Computing, pp.1-20 (2019)
30. Ramteke, P.B., Supanekar, S., Koolagudi, S.G. "Classification of aspirated and unaspirated sounds in speech using excitation and signal level information" Computer Speech and Language, 62,(2020)
31. Chittaragi, N.B., Koolagudi, S.G. "Automatic dialect identification system for Kannada language using single and ensemble SVM algorithms" Language Resources and Evaluation, 54 (2), pp. 553-585 , (2020)
32. Chittaragi, N.B., Koolagudi, S.G. "Acoustic-phonetic feature based Kannada dialect identification from vowel sounds" International Journal of Speech Technology, 22 (4), pp. 1099-1113.553-585, (2019)
33. Mulimani, M., Koolagudi, S.G. "Robust Acoustic Event Classification using Fusion Fisher Vector features" Applied Acoustics, 155, pp. 130-138(2019)
34. Rao, D., Koolagudi, S. "Music cryptography based on carnatic music" International Journal of Engineering

and Advanced Technology, 9 (1), pp. 5107-5114. (2019)
35. Vora, A.V., Hegde, S. "Keyword-based private searching on cloud data along with keyword association and dissociation using cuckoo filter" International Journal of Information Security, 18 (3), pp. 305-319(2019)
36. Nazareth, P., Chandavarkar, B.R. "E-Var: Enhanced void avoidance routing algorithm for underwater acoustic sensor networks" IET Wireless Sensor Systems, 9 (6), pp. 389-398. (2019)
37. Singh, M.P., Sural, S., Vaidya, J., Atluri, V. "Managing attribute-based access control policies in a unified framework using data warehousing and in-memory database" Computers and Security, 86, pp. 183-205. (2019)
38. Bijay Dev, K.M., Jogi, P.S., Niyas, S., Vinayagamani, S., Kesavadas, C., Rajan, J. "Automatic detection and localization of Focal Cortical Dysplasia lesions in MRI using fully convolutional neural network" Biomedical Signal Processing and Control, 52, pp. 218-225(2019)
39. Srinidhi, C.L., Aparna, P., Rajan, J. "Automated Method for Retinal Artery/Vein Separation via Graph Search Metaheuristic Approach" (2019) IEEE Transactions on Image Processing, 28 (6), pp. 2705-2718.
40. Imputato, P., Avallone, S., Tahiliani, M.P., Ramakrishnan, G. "Revisiting design choices in queue disciplines: The PIE case" Computer Networks, 171, (2020)
41. Rathod, V., Jeppu, N., Sastry, S., Singala, S., Tahiliani, M.P. "CoCoA++: Delay gradient based congestion control for Internet of Things" Future Generation Computer Systems, 100, pp. 1053-1072, (2019)
42. Patil, S.D., Tahiliani, M.P. "Minstrel PIE: Curtailing queue delay in unresponsive traffic environments" Computer Communications, 139, pp. 16-31(2019)
43. Halavar, B., Talawar, B. "Power and performance analysis of 3D network-on-chip architectures" Computers and Electrical Engineering, 83, (2020)
44. Prabhu Prasad, B.M., Parane, K., Talawar, B. "An Efficient FPGA-Based Network-on-Chip Simulation Framework Utilizing the Hard Blocks" Circuits, Systems, and Signal Processing, (2020)
45. Parane, K., Prabhu Prasad, B.M., Talawar, B. "LBNoc: Design of low-latency router architecture with lookahead bypass for network-on-chip using FPGA" ACM Transactions on Design Automation of Electronic Systems, 25 (1), (2020)
46. Halavar, B., Pasupulety, U., Talawar, B. "Extending BookSim2.0 and HotSpot6.0 for power, performance and thermal evaluation of 3D NoC architectures" Simulation Modelling Practice and Theory, 96(2019)
47. Parane, K., Prabhu Prasad, B.M., Talawar, B. "YaNoC: Yet Another Network-on-Chip Simulation Acceleration Engine Supporting Congestion-Aware Adaptive Routing Using FPGAS" Journal of Circuits, Systems and Computers, 28 (12), (2019)
48. Prasad, B.M.P., Parane, K., Talawar, B. "Analysis of cache behaviour and software optimizations for faster on-chip network simulations" International Journal of Systems Assurance Engineering and Management, 10 (4), pp. 696-712. (2019)
49. Mohan, A., Venkatesan, M. "HybridCNN based hyperspectral image classification using multiscale spatiospectral features" Infrared Physics and Technology, 108, (2020)
50. Gunasekaran, G., Venkatesan, M. "An Efficient Technique for Three-Dimensional Image Visualization through Two-Dimensional Images for Medical Data" Journal of Intelligent Systems, 29 (1), pp. 100-109(2020)
51. Mohan, A., Meenakshi Sundaram, V. V3O2: hybrid deep learning model for hyperspectral image classification using vanilla-3D and octave-2D convolution. J Real-Time Image Proc (2020).
52. Kanimozhi, K.V., Krishnan, R., Venkatesan, M.(2019), An enlarged map-reduce using 2logmean-PSO optimization for unstructured data, International Journal of Electrical Engineering Education, (2019)

53. Kanimozhi, K.V., Rajakumarkrishnan, Venkatesan, M(2019), Maximum frequent item set based clustering algorithm for big text data, International Journal of Recent Technology and Engineering, 8 (2 Special Issue 11), pp. 3970-3975. (2019)
54. K.V.Kanimozhi, Dr.Rajakumarkrishnan, Dr.M.Venkatesan. (2020). Weighted Frequent Pattern based Agglomerative Clustering for large unstructured text data. International Journal of Control and Automation, 13(2s), 151 - 164
55. Bhowmik, B. "Maximal Connectivity Test with Channel-Open Faults in On-Chip Communication Networks" Journal of Electronic Testing: Theory and Applications (JETTA) (2020)

DEPARTMENT OF CHEMISTRY

1. Onkarappa, Sharath B and Dutta, Saikat*, "Phase Transfer Catalyst Assisted One-Pot Synthesis of 5-(Chloromethyl)furfural from Biomass-Derived Carbohydrates in a Biphasic Batch Reactor", *ChemistrySelect*, DOI:10.1016/j.fuproc.2019.106192, vol 4, pp 7502-7506, July 2019.

2. Fraqueza, Gil; Fuentes Juan; Dutta, Saikat; Mal, Sib S; Roller, Alexander; Giester, Gerald; Rompel, Annette and Aureliano, Manuel, "Inhibition of Na+/K+- and Ca2+-ATPase activities by phosphotetradecavanadate", Journal of Inorganic Biochemistry,DOI:10.1016/j.jinorgbio. 2019.110700, vol 197, 110700, Aug 2019.

3. Tiwari, Ritesh; Rahman, Anoosha; Bhat, Navya S; Onkarappa, Sharath B.; Mal, Sib. S.* and Dutta, Saikat*, "Efficient Preparation of Alkyl Benzoates by Heteropolyacid-Catalysed Esterification of Benzoic Acid under Solvent-Free Condition, *ChemistrySelect*, DOI:10.1002/slct.201902208, Vol 4, pp 9119-9123, Aug 2019.

4. Mascal, Mark* and Dutta, Saikat, "Synthesis of highly-branched alkanes for renewable gasoline", Fuel Process Technology,DOI:10.1016/j.fuproc.2019.106192, vol 197, 106192, Jan 2020.

5. Onkarappa, Sharath B.; Bhat, Navya S.; Parashuram, Devaraj; Dutta, Saikat*, "Catalytic Conversion of Biomass-Derived Carbohydrates into Levulinic Acid Assisted by a Cationic Surface Active Agent", *ChemistrySelect*, DOI:10.1002/slct.201902006, vol 4, pp 13021-13024, December 2019.

6. Friscic, Tomistav; Elacqua, Elizabeth; Dutta, Saikat, Oburn, Shalisa M. and MacGillivray, Leonard R.*, "Total Syntheses Supramolecular Style: Solid-State Construction of [2.2]Cyclophanes with Modular Control of Stereochemistry", *Crystal Growth & Design, DOI:*10.1021/acs.cgd.9b01712, vol 20, pp 2584-2589, January 2020.

7. Dasari, Kiran K.; Gumtapure, Veershetty and Saikat Dutta, "Upgrading of coconut shell-derived pyrolytic bio-oil by thermal and catalytic deoxygenation", Enery Sources, Part A: Recovery Utilization, and Environmental Effects, DOI:10.1080/15567036.2019.1711465, vol 2020, pp 1-8, Jan 2020.

8. Mohan, Akhil, Dutta, Saikat and Madav, Vasudeva, "Characterization and upgradation of crude tire pyrolysis oil (CTPO) obtained from a rotating autoclave reactor", Fuel, DOI: 10.1016/j.fuel.2019.03.139, vol 250, pp 339-351, August 2019.

9. Onkarappa, Sharath B and Dutta, Saikat*, "High-Yielding Synthesis of 5-(alkoxymethyl)furfurals from Biomass-Derived 5-(halomethyl)furfural (X=Cl, Br)", ChemistrySelect, DOI: 10.1002/slct.201900279, vol 4, pp 5540-5543, May 2019.

10. Janardhanan, J. C., James, K., Puthuvakkal, A., Bhaskaran, R. P., Suresh, C. H., Praveen, V. K., Manoj, N., Babu, B. P. - Synthesis of hybrid polycycles containing fused hydroxy benzofuran and 1H-indazoles via a domino cyclization reaction. - *New Journal of Chemistry* 2019, *43*, 10166-10175.

11. Amrutha, U., Babu, B. P., Prathapan, S. - Metal-free synthesis of 1-azaspiro[4.4]nonane-3-one system via reactions of nitrones with 1,1-disubstituted allenes - *Journal of Heterocyclic Chemistry*, 2019, *56*, 3236-3243.
12. Deepthi, A., Babu, B. P., Balachandran, A.L., - Synthesis of Furans–Recent Advances - *Organic Preparations and Procedures International*, 2019, *51*, 409-442.
13. Indira G., Sparsha P., Suchita U., Sib Sankar Mal, Guan-Yu Zhuo, K. K. Mahato, Nirmal Mazumder* *Microscopic and Spectroscopic Analysis of Rice and Corn Starch Microscopy Research and Technique,* 2020, 83 (5), 490-498.
14. Sparsha Kumari,Sukanya Maity, Anjana A. Vannathan, Debaprasad Shee,Partha Pratim Das,*and Sib Sankar Mal* Improved electrochemical performance of graphene oxide supported vanadomanganate (IV)nanohybrid electrode material for supercapacitors Ceramics International, 2020, 3, 3028-3035.
15. Ritesh Tiwari, Anoosha Rahman, Sharath Bandibairanahalli Onkarappa, Sib Sankar Mal*, and Saikat Dutta* Efficient preparation of alkyl benzoates by heteropolyacid-catalysed esterification of benzoic acid under solvent-free conditionChemistrySylect, 2019, 4, 9119-9123.
16. Partha Pratim Das,*Marc Cahay*, Sashi Kalita, Sib Sankar Mal, Alok K. Jha, Width dependence of the 0.5x($2e^2/h$) conductance plateau in InAs quantum point contacts in presence of lateral spin-orbit coupling *Scientific Reports*, 2019, 9 (1),12172.
17. Ritesh Tiwari, Sib Sankar Mal*, and Saikat Dutta* A scalable and high-yielding synthesis of 2-(2-furyl)-1,3-dioxolane from biomass-derived furfural and ethylene glycol using heteropoly acids as green catalyst, Asian Journal of Chemistry, 2019, 31, 1599-1602.
18. Sarath B. Onkarappa, Manjunath G. Javoor, Sib Sankar Mal*, and Saikat Dutta* Efficient and scalable production of alkyl levulinates from cellulose-derived levulinic acid using heteropolyacid catalysts ChemistrySelect, 2019, 4, 2501-2504.
19. Polyoxovanadates inhibition of Escherichia coli growth shows a reverse correlation with Ca^{2+}-ATPase inhibition, Dorinda Marques-da-Silva, Gil Fraqueza., Lagoa, R., Anjana A. Vannathan, Sib Sankar Mal* and Manuel Aureliano*, New Journal of Chemistry, 2019, 43, 17577-17587.
20. Lulas Krivosudský, Saikat Dutta, Sib Sankar Mal*, Annette Rompel* and Manuel Aureliano*Inhibition of Na^+/K^+-ATPase activity from the basal membrane of the epithelia by phosphovanadate PV14, Gil Fraqueza, Juan Fuentes, , Journal of Inorganic Biochemistry, 2019, 197, 110700.
21. Viprabha Kakekochi, Nikhil P P, Keloth Chandrasekharan, Udaya Kumar D. Impact of Donor–Acceptor Alternation on Optical Power Limiting Behavior of H–Shaped Thiophene–Imidazo[2,1-b][1,3,4]Thiadiazole Flanked Conjugated Oligomers. Dyes and Pigments. 2020, 175, 108181.
22. Rajkumar Reddyrajula and Udaya Kumar D. The bioisosteric modification of pyrazinamide derivatives led to potent antitubercular agents: Synthesis via click approach and molecular docking of pyrazine-1,2,3-triazoles. Bioorganic and Medicinal Chemistry Letters. 2020, 30 (2), 126846.
23. Rajkumar Reddyrajula and Udaya Kumar D. Structural Modification of Zolpidem Resulted Potent Anti-TB activity in Imidazo[1,2-*a*]pyridine/pyrimidine-1,2,3-triazoles. New Journal of Chemistry, 2019, 43, 16281–16299.
24. Ramu Manjula, Nikhila Gokhale, Sruthi Unni, Prashant Deshmukh, Rajkumar Reddyrajula, M M S

Bharath, Udaya Kumar Dalimba, Balasundaram Padmanabhan. Design, synthesis, in-vitro evaluation and molecular docking studies of novel indole derivatives as inhibitors of SIRT1 and SIRT2. Bioorganic Chemistry, 2019, 92, 103281.

25. Viprabha K, Udayakumar Dalimba, Nikhil P P, ChandrasekharanK. Effects of substituents on enriching optical limiting action of novel imidazo[2,1-b][1,3,4]thiadiazole fused thiophene based small molecules. New Journal of Chemistry. 2019, 43, 9232-9242.
26. Viprabha K, Udaya Kumar D, Nikhil P P, ChandrasekharanK, An investigation on photophysical and third–order nonlinear optical properties of novel thermally–stable thiophene–imidazo [2,1-b][1,3,4] thiadiazole based azomethines. Dyes and Pigments, 2019, 167, 216-224.
27. Rajkumar Reddyrajula, Udayakumar Dalimba. Quinoline–1,2,3-triazole hybrids: Synthesis through click reaction, evaluation of antitubercular activity, molecular docking and in-silico ADME studies. ChemistrySelect, 2019, 4, 2685-2693.
28. Rajkumar Reddyrajula, Udayakumar Dalimba, Madan Kumar S. Molecular hybridization approach for phenothiazine incorporated 1,2,3-triazole hybrids as promising antimicrobial agents: Design, synthesis, molecular docking and in silico ADME studies. European Journal of Medicinal Chemistry, 2019, 168, 263-282.
29. Meenaketan Sethi and D. Krishna Bhat, NiO Nanoplates For Energy Storage Application: Role of Electrolyte Concentration on The Energy Storage Property, Second International Conference on Processing and Characterization of Materials (ICPCM-2019) held at NIT Rourkela, Rourkela, India, during the period of 12th – 14th December, 2019.
30. Meenaketan Sethi and D. Krishna Bhat, Porous graphene – NiCo2O4 nanorod hybrid composite as high performance supercapacitor electrode material, Second International Conference on Nanoscience and Nanotechnology (ICNAN'19) held at VIT, Vellore, India, during the period of 29th November - 1st December, 2019.
31. Meenaketan Sethi and D. Krishna Bhat, Engineered Porous Nanopillars of Co3O4: Hydrothermal Synthesis and its Energy Storage Application., Second International Conference on Design, Materials & Manufacture (ICDEM 2019) organized by NITK, Surathkal, Mangalore, India, during the period of 6th – 8th December, 2019.
32. Harsha Bantawal, D. Krishna Bhat. BaTiO3-graphene Nanocomposite as a Photocatalyst for the Degradation of Methylene Blue, International Conference on Design, Materials & Manufacture 2019 held at NITK Surathkal, India, during the period of 6th – 8th December, 2019.
33. Meenaketan Sethi and D. Krishna Bhat, Novel Porous Graphene Synthesized Through Solvothermal Approach As High Performance Electrode Material For Supercapacitors., International Conference on Physics of Materials and Nanotechnology (ICPN-2019), held at Department of Physics, Mangalore University, Mangalore, India, during the period of 19th –21st September, 2019.
34. U. Sandhya Shenoy and D. Krishna Bhat, Electronic structure engineering of rhodium doped strontium titanate for enhanced photocatalysis, 6th International Conference of the Indian Council of Chemists held at Paris (France) and Brussels (Belgium), Europe, June 6-8, 2019.
35. U. Sandhya Shenoy and D. Krishna Bhat, High performance tin telluride thermoelectrics by electronic structure engineering: a synergistic effect of bismuth and indium co-doping, 6th International Conference of the Indian Council of Chemists held at Paris (France) and Brussels (Belgium), Europe, June 6-8, 2019.
36. Saroja Anuma and Badekai Ramachandra Bhat, Synthesis Of Copper Graphene Nanocomposite By Amino Functionalization And Their

Catalytic Applications, Materials Today: Proceedings 2019, 18, 4942–4951https://doi.org/10.1016/j.matpr.2019.07.486.
37. Praveen Mishra and Badekai Ramachandra Bhat, A study on the electro-reductive cycle of amino-functionalized graphene quantum dots immobilized on graphene oxide for amperometric determination of oxalic acid, Microchimica Acta,2019, 186:646.
38. D.N.Sangeetha, R. Sowmya Holla, Badekai Ramachandra Bhat and M.Selvakumar (2019) High power density and improved H_2 evolutionreaction on MoO_3/Activated carbon composite, International Journal of Hydrogen Energy (In press)
39. Praveen Mishra and Badekai Ramachandra Bhat (2019) Calcium-Induced Photoluminescence Quenching of Graphene Quantum Dots in Hard Water: A Quick Turn-Off Sensing Approach, Chemistry Select, 4(29)8682-8688.
40. Praveen Mishra and Badekai Ramachandra Bhat (2019)Aggregative ways of graphene quantum dots with nitrogen-rich edges for direct emission spectrophotometric estimation of glucose, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 223,117325.
41. Chinyere Okolo, Rafaila Rafique, Sadia Sagar Iqbal, Tayyab Subhani, Mohd Shahneel Saharudin, Badekai Ramachandra Bhat and Fawad Inam (2019) Customizable Ceramic Nanocomposites Using Carbon Nanotubes, Molecules, 24, 3176(10).
42. Madhu N Nimbalkar and Badekai Ramachandra Bhat (2019) Facile Green Synthesis of Zirconium Based Metal-Organic Framework having Carboxylic Anchors, Materials Today: Proceedings 9, 522–527.
43. Rasheeda M.Ansari and BadekaiRamachandra Bhat (2019) Copper (II) Schiff base-graphene oxide composite as an efficient catalyst for Suzuki-Miyaura reaction, Chemical Physics, 517, 155-160.
44. KB Manjunatha, Ravindra Rajarao, P Poornesh, BJ Rudresha, G Umesh, B Ramachandra Bhat (2019), Enhanced photostability and optical nonlinearity of nickel and cobalt organometallic complexes, Optical Materials 89, 494-497.
45. Saroja Anuma, Praveen Mishra and Badekai Ramachandra Bhat (2019), Copper complex with N-,O-architecture grafted graphene oxide nanosheet as a heterogeneous catalyst for Suzuki Cross Coupling Reaction, Journal of the Taiwan Institute of Chemical Engineers, 95,643-651.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. Prakash Pawar & K Panduranga Vittal “Design and Development of Advanced Smart Energy Management System Integrated with IoT Framework in Smart Grid Environment” Journal of Energy Storage, Vol 25 , Oct 2019, pp. 1-13, https://doi.org/10.1016/j.est.2019.100846
2. Prakash Pawar, Mudige Tarun Kumar & K Panduranga Vittal “An IoT based Intelligent Smart Energy Management System with accurate forecasting and load strategy for renewable generation” Measurement, 28 Oct 2019, pp. 1-17, https://doi.org/10.1016/j.measurement.2019.107187
3. Prakash Pawar & K Panduranga Vittal “Performance analysis of a smart meter node for congestion avoidance and LoS coverage” AIMS Energy, Vol 7(3), 31st May 2019, pp. 313-336, http://dx.doi.org/10.3934/energy.2019.3.313
4. M. Mohan & K Panduranga Vittal "Design and Transient Studies on Muti-terminal VSC-HVDC Systems Interconnecting Offshore Wind farms" The ECTI Transactions on Electrical Engineering, Electronics and Communications(EEC), Vol 17(2), Aug 2019, pp. 181-192, https://www.ecti-eec.org/index.php/ecti-eec/article/view/767
5. M. Mohan & K Panduranga Vittal "Design and Simulation of Quadrilateral Relays in AC Transmission Lines with VSC Based HVDC Systems Under Phase to Ground Fault conditions" University

POLYTECHNICA of Burchares Scientific Bulletin Series C: Electrical Engineering and Computer Science, Vol 81(3), 2019, pp. 153-168, https://www.researchgate.net/publication/334881499

6. B.Ramesh & K.P.Vittal "Situation awareness of deep mining environment using raspberry pi" "Journal of Computational and Theoretical Nanoscience, Vol 16(5), May 2019, pp.2604-2608, https://doi.org/10.1166/jctn.2019.7937
7. M. Arjun, V.V Ramana, Roopa V.D & B Venkatesaperumal "Small Signal Model for PV fed Boost Converter in Continues and Discontinues Conduction Modes" IEEE Trans. On Circuits and Systems II: Express Briefs, Vol 66(7), July 2019, pp. 1192-1196, 10.1109/TCSII.2018.2876156,IEEE
8. Arjun M, V.V Ramana, Roopa V.D & B Venkatesaperumal "An Iterative Analytical Solution for Calculating Maximum Power Point in Photovoltaic Systems Under Partial Shading Conditions" IEEE Trans. On Circuits and Systems II: Express Briefs, Vol 66(6), June 2019, pp. 973-977, 10.1109/TECSII.2018.2867088
9. Jayasankar V.N & Vinatha U "Modified Instantaneous Power Theory and Fuzzy Logic Based Controller for Grid-connected Hybrid Renewable Energy System with Shunt Active Power Filter Functionality" International Journal on Electrical Engineering and Informatics, Vol 11(2), June 2019, pp. 373-388, 10.15676/ijeei.2019.11.2.10
10. Ramu Srikakulapu & Vinatha U, "Stability analysis and a hybrid controller design of grid-connected offshore wind farm through a VSC-HVDC transmission link" Asian Journal of Control, Vol 21(4), 28th July 2019, pp. 2017-2026, https://doi.org/10.1002/asjc.2194
11. Pavana Prabhu and Vinatha U," Design of coupled inductors using split winding scheme for bridgeless SEPIC" *IET Power Electronics, Vol 13(7),2020,pp. 1434-1444,*https://doi.org/10.1049/iet-pel.2019.1227
12. P.Krishna Reddy, Deepak Ronanki & P.Parthiban "Direct torque and Flux control of switched reluctance motor with enhanced torque perampere ratio and torque ripple reduction" Electronics Letters, Vol 55(8), 18th Apr 2019, https://doi.org/10.1049/el.2018.8241
13. Vivekananda Subburaj,Debashisha Jena,Parthiban Perumal & Yaqub Mahnashi "High efficiency two-phase switched-capacitor converter with seven distinct negative voltage ratios for power saving applications" International Journal of Electronics Letters, 11th Apr 2019, pp. 1-8, 10.1080/21681724.2019.1600728
14. Vivekananda Subburaj, Ainur Zhaikhan, Debashisha Jena, Parthiban Perumal, Yerzhan Mustafa & Alex Investigation of a family of dual-output coupled/decoupled switched capacitor converter for low-power Applications" IET Circuits, Devices and Systems, Vol 13(3), 6th June 2019, pp. 352-360, https://doi.org/10.1049/iet-cds.2018.5419
15. Jayalakshmi N.S, D.N.Gaonkar & Sanchit Kumar Jain "Power smoothing method of PMSG based grid integrated wind energy conversion system using BESS/DSTATCOM" International Journal of Power Electronics and Drive Systems, Vol 10(4), Dec 2019, pp. 1969-1976, 10.11591/ijpeds.v10.i4.1969-1976
16. Santhosh K.G. Manikonda & Dattatraya N. Gaonkar "IDM based on image classification with CNN" The Journal of Engineering, Issue:10, 11th Nov 2019, pp. 7256-7262, https://doi.org/10.1049/joe.2019.0025
17. Santhosh K.G. Manikonda & Dattatraya N. Gaonkar "Comprehensive review of IDMs in DG systems" IET Smart Grid, Vol 2,Issue:1, 4th April 2019, pp. 11-24, https://doi.org/10.1049/iet-stg.2018.0096
18. Chethan Raj D, Dattatraya N. Gaonkar, Josep M. Guerrero" Power sharing control strategy of parallel inverters in AC Microgrid using improved reverse droop control"

International Journal of Power Electronics, Vol.11 No.1, Jan 2020, pp.116 – 137, 10.1504/IJPELEC.2020.103953

19. Kancharana Vinod Kumar, Reddiprasad Reddivari & Debashisha Jena "A Comparative Study of Different Capacitor Voltage Control Design Strategies for Z-Source Inverter" IETE Journal of Research, 07th Aug,2019, pp. 1-11, https://doi.org/10.1080/03772063.2019.1650669
20. Reddiprasad Reddivari & Debashisha Jena "Novel active clamped Y-Source network for improved voltage boosting" IET Power Electronics, Vol 12(8), 8th April 2019, pp. 2005-2014, 10.1049/iet-pel.2018.6212
21. Vivekananda Subburaj, Debashisha Jena & Parthiban Perumal ""Two phase (reconfigurable) inverting switched capacitor converter for micro power applications and its accurate equivalent resistance calculation" IEEE Transactions on Circuits and Systems II: Express Briefs, Vol 66(8), Aug 2019, --.1446-1450, https://doi.org/10.1109/TCSII.2018.2886076
22. Reddiprasad Reddivari &Debashisha Jena "Analysis of RCD snubber based non-ideal Z-source inverter using average modelling approaches" International Journal of Electronics, 8th Oct 2019, pp.1-22, https://doi.org/10.1080/00207217.2019.1672811
23. Uday Patil & Nagendrappa Harischandrappa "Analysis and Design of a High-Frequency Isolated Full-Bridge ZVT CLL Resonant DC-DC Converter" IEEE Transactions on Industry Applications, Vol 55(5), Sept/Oct 2019,pp. 4993-5004, 10.1109/TIA.2019.2926290
24. G.S Krishna & Tukaram Moger "Enhancement of maximum power output through reconfiguration techniques under non-uniform irradiance conditions" Energy, Vol 187, 15th Nov 2019, pp.115-917, https://doi.org/10.1016/j.energy.2019.115917
25. G.S Krishna & Tukaram Moger "Optimal SuDoKu Reconfiguration Technique for Total-Cross-Tied PV array to Increase Power Output Under Non-uniform Irradiance" IEEE Transaction on Energy Conversion, 7th June 2019, pp.1-12, https://doi.org/10.1109/TEC.2019.2921625
26. G.S Krishna & Tukaram Moger "Reconfiguration strategies for reducing partial shading effects in photo-voltaic arrays: "State of the art" Solar Energy, Vol 182, Apr 2019, pp. 429-452, https://doi.org/10.1016/j.solener.2019.02.057
27. G.S Krishna & Tukaram Moger "Improved SuDoKu reconfiguration technique for total-cross-tied pv array to enhance maximum power under partial shading conditions" Renewable and Sustainable Energy Reviews, Vol 109, July 2019, pp.333-348, https://doi.org/10.1016/j.rser.2019.04.037
28. J Saikrishna Goud,R.Kalpana,Bhim Singh & Shailendra Kumar "Ä Global Maximum Power Point Tracking Technique of Partially Shaded Photovoltaic Systems for Constant Voltage Applications" IEEE Transactions on Sustainable Energy, Vol 10(4), Oct 2019, pp. 1950-1959, 10.1109/TSTE.2018.2876756
29. Saravana Prakash P & R Kalpana "Inclusive Design and Development of Front-End Multi-Phase Rectifier With Reduced Magnetic Rating and Improved Efficiency" IEEE Journal of Emerging and Selected Topics in Power Electronics, 23rd Oct 2019, pp. 1-11, https://doi.org/10.1109/JESTPE.2019.2949138
30. R. Kalpana, Saravana Prakash P, Vidyasagar V.S & Bhim Singh "Investigations on Open Circuit Faults of Zigzag Auto configured Transformer Based 12-Pulse Rectifier"IEEE Transactions on Industry Applications ,Vol 56(2), March-April 2020,pp. 1599-1608,https://doi.org/10.1109/TIA.2019.2963175
31. A.Karthikeyan & K.K.Prabhakaran "Laboratory implementation of electromagnetic torque based MRAS speed estimator for sensorless

SMPMSM drive" Electronics Letters, Vol 55(21), 17th Oct 2019, pp.1145-1147, https://doi.org/10.1049/el.2019.2229

32. A.Karthikeyan & K.K.Prabhakaran "Electromagnetic Torque-Based Model Reference Adaptive System Speed Estimator for Sensorless Surface Mount Permanent Magnet Synchronous Motor Drive" IEEE Transactions on Industrial Electronics, Vol 67(7),15th Jan 2020,pp. 5936-5947, https://doi.org/10.1109/TIE.2020.2965499
33. Hadik Azeem, Yellasiri Suresh, J. Venkatramaniah, Banavath Shiva Naik & Anup Kumar Panda "A Fuzzy Logic Based Switching Methodology for a Cascaded H-Bridge Multilevel Inverter" IEEE Transactions on Power Electronics, Vol 34(10), Oct 2019, pp.9360-9364, https://doi.org/10.1109/TPEL.2019.2907226
34. Banavath Shiva Naik, Yellasiri Suresh & J Venkatramaniah "Design and implementation of a novel nine-level MT-MLI with a self-voltage-balancing switching technique" IET Power Electronics, Vol 12(15), 5th Dec 2019,https://doi.org/10.1049/iet-pel.2018.6119
35. Banavath Shiva Naik, Yellasiri Suresh & JammalaVenkataramaniah "Experimental verification of a hybrid multilevel inverter with voltage-boosting ability." International Journal of Circuit Theory and Applications, Vol 48(3), 31st Jan 2020, pp. 420-434,https://doi.org/10.1002/cta.2748
36. Omkar Powar & Krishnan Chemmangat "Reducing the effect of wrist variation on pattern recognition of Myoelectric Hand Prostheses Control through Dynamic Time Warping" Biomedical Signal Processing and Control, Vol 55, 2020, pp. 1-9, https://authors.elsevier.com/a/IZINJ6DBR2xOlIt
37. Omkar Powar & Krishnan Chemmangat " Dynamic time warping for reducing the effect of force variation on myoelectric control of hand prostheses" Journal of Electromyography and Kinesiology, Vol 48, Oct 2019, pp. 152-160, https://authors.elsevier.com/c/1ZSaN3kurof9mZ
38. Asif Abdullah & Krishnan Chemmangat "Computationally Efficient sEMG based Silent Speech Interface using Channel Reduction and Decision Tree based Classification" Procedia Computer Science, Vol 171, Jan 2020, pp. 120-129,https://doi.org/10.1016/j.procs.2020.04.013
39. N Sandeep & Udaykumar R Yaragatti "Switched-Capacitor-Based Quadruple-Boost Nine-Level Inverter" IEEE Transactions on Power Electronics, Vol 34(8), Aug 2019, pp. 7147-7150, https://doi.org/10.1109/TPEL.2019.2898225
40. N Sandeep & Udaykumar R Yaragatti "A Self-Balancing Five-Level Boosting Inverter with Reduced Components" IEEE Transactions on Power Electronics, Vol 34(7), July 2019, pp. 6020-6024, https://doi.org/10.1109/TPEL.2018.2889785
41. Anto Joseph, Seok-Min Kim, Sze Sing Lee, Arun Dominic & Kyo-Beum Lee "Boost Multi-level NPC-Fed Variable Speed Large Rated Asynchronous Pumped Storage Hydro-Generating Unit" IET Electric Power Applications, Vol 13(10), Oct 2019,pp. 1488-1496, https://doi.org/10.1049/iet-epa.2018.5851
42. Dharavath Kishan, P Srinivasa Rao Nayak & B Naresh Kumar Reddy "Implementation of Identical Spiral Square Inductive Coils for Wireless EV Battery Charging Application" Iranian Journal of Electrical and Electronic Engineering, Vol 16(1),March 2020,pp. 66-73, 10.22068/IJEEE.16.1.66
43. B Naresh Kumar Reddy, Dharavath Kishan & B Veena Vani "Performance constrained multi-application network on chip core mapping" International Journal of Speech Technology, Vol 22(4), Sept 2019, pp. 927-936, 10.1007/s10772-019-09636-3
44. Y. Gupta, M. W. Ahmad, S. Narale & S. Anand "Health Estimation of Individual Capacitors in a Bank With

Reduced Sensor Requirements"IEEE Transactions on Industrial Electronics,Vol 66(9), Sept 2019,pp. 7250-7259, https://doi.org/10.1109/TIE.2018.2880725

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

1. Kalluri Shareef B., Deepu Vijayasenan and Ganapathy S., "Automatic speaker profiling from short duration speech data, Speech Communication", Volume 121, August 2020, Pages 16-28.
2. Kumar P, Ashvini Chaturvedi, "Design and Development of Single & Dual Resonant Frequency Antennas for Moisture Content Measurement", Wireless Personal Communications, 2020 (in press).
3. Sushma B, Aparna P., "Distributed video coding based on classification of frequency bands with block texture conditioned key frame encoder for wireless capsule endoscopy", Biomedical Signal Processing and Control, Volume 60, July 2020, Article number 101940.
4. Shilpa Kamath, Aparna P., Antony A., "Performance enhancement of HEVC lossless mode using context-based angular and planar intra predictions", Multimedia Tools and Applications, Volume 79, Issue 17-18, 1 May 2020, Pages 11375-11397.
5. Polineni, S., M.S. Bhat and Rekha S., "A Switched Capacitor-Based SAR ADC Employing a Passive Reference Charge Sharing and Charge Accumulation Technique", Circuits Systems and Signal Processing (CSSP), Springer Publications (SCIE, Scopus), May 2020.
6. Deepu S. P., Ramesh Kini M.,Sumam David, "Accurate estimation of decay coefficients for dynamic range compressors in hearing aids and a hardware level comparison of different architectures", Microprocessors and Microsystems, Vol. 74, pp. 1-10, April 2020.
7. Geriki Polaiah, Krishnamoorthy K and Muralidhar Kulkarni, "Compact High-Efficiency Pentahedron and Quatrefoil Shape Antennas with Enhanced Gain for GSM1800, 3G, 4G-LTE Energy Harvesting Applications" International Journal of Microwave and Wireless Technologies, Cambridge University Press and the European Microwave Association (Eu*MA)*, April, 2020.
8. Deepa Puneeth, Muralidhar Kulkarni, "Data Aggregation Using Compressive Sensing for Energy Efficient Routing Strategy", Elsevier: Science Direct: Procedia Computer Science Vol.171, 2020, Pages 2242- 2251.
9. Naveen Jacob, Muralidhar Kulkarni, Krishnamoorthy K, "An Electronically Switchable UWB to Narrow Band Antenna for Cognitive Radio Applications", Microwave and Optical Technology Letters(Wiley), 2020; 1–13, wileyonlinelibrary.com/journal/mop © 2020 Wiley Periodicals, Inc DOI: https://doi.org/10.1002/mop.32417
10. Naveen Jacob, Muralidhar Kulkarni, Krishnamoorthy K, "Omega Shaped Complementary Split Ring Resonator Loaded Bandwidth Reconfigurable Antenna for Cognitive Radio Applications", Accepted for publication in Elsevier Procedia Computer Science Journal, April 2020. Article reference: PROCS38455.
11. Prashant Kharat, Muralidhar Kulkarni, "Congestion control Performance Investigation of ModQUIC protocol using JioFi Network: A case Study", Journal of High Speed Networks, Vol. 26, No. 1, pp. 13-26, 2020. Published: 31 March 2020, DOI: 10.3233/JHS-200627.
12. G. Hanumantha Rao and S. Rekha, "Time Constant Enhancement Technique for Low-Frequency Filters", Circuits, Systems, and Signal, Processing Volume 39, Issue 3, 1 March 2020, Pages 1213-1226.
13. Shilpa Kamath, Aparna P., Antony A., "Pixelwise improvised blend of predictors in HEVC lossless mode", AEU - International Journal of Electronics and Communications, Volume 114, February 2020, Article number 153000.
14. PN Ramavath, Shripathi Acharya Udupi, Prabu Krishnan**,** "Co-operative RF-UWOC link performance over hyperbolic tangent log-normal distribution channel with pointing

errors", Elsevier – Optics Communications, 2020.
15. Ramavath, Prasad Naik, Shripathi Acharya Udupi, and Prabu Krishnan, "High-speed and reliable Underwater Wireless Optical Communication system using Multiple-Input Multiple-Output and channel coding techniques for IoUT applications", Optics Communications, Volume 461, 15 April 2020, Article number 125229.
16. Ramavath, Prasad Naik, Shripathi Acharya Udupi, and Prabu Krishnan, "Experimental demonstration and analysis of underwater wireless optical communication link: Design, BCH coded receiver diversity over the turbid and turbulent seawater channels" Wiley – Microwave and Optical Technology Letters, 2020.
17. Sravani, K., Rathnamala Rao, A High Performance Early Acknowledged Asynchronous Pipeline using Hybrid-logic Encoding, Integration, Volume 71, March 2020, Pages 134-143.
18. Sravani, K., Rathnamala Rao, Novel Asynchronous Pipeline Architectures for High-Throughput Applications (in press), Arabian Journal for Science and Engineering 2020.
19. Sravani, K., Rathnamala Rao, Design of high throughput asynchronous FIR filter using gate level pipelined multipliers and adders (in press), International Journal of Circuit Theory and Applications, 2020.
20. H. Lad Kirankumar, S. Rekha, Tonse Laxminidhi, "A Dead-Zone-free Zero Blind-zone High-speed Phase frequency Detector for Charge-Pump PLL", Circuits, Systems and Signal Processing, Springer, doi: 10.1007/s00034-020-01366-1, (SCIE, Scopus), Feb. 2020, pp. 1-14.
21. Abhishek Kumar, Prabu Krishnan, "Performance Analysis of RoFSO Links with Spatial Diversity over Combined Channel Model for 5G in Smart City Applications", Elsevier – Optics Communications, 2020.
22. Divya shree M, Sangeetha A and Prabu Krishnan, "Analysis and optimization of uniform FBG structure for sensing and communication applications", Springer – Photonics Network Communications, 2020.
23. Mandeep Singh, S. Kumar, O. Prakash and P. K Saini, "High-Resolution fiber optic sensor based on coated linearly chirped bragg grating", Optik,vol. 212, no. 17, 164698, 2020.
24. Sanjeev Kumar, Nimish Srivastava and Mandeep Singh, "Highly steerable microwave beam forming system near Ku-band based on application of linearly chirped fiber Bragg grating," IEEE/IET Optoelectronics,vol. 14, pp. 81-90, 2020.
25. Anu Shaju Areeckal, Michel Kocher, Sumam David S., "Current and Emerging Diagnostic Imaging-Based Techniques for Assessment of Osteoporosis and Fracture Risk", IEEE Reviews in Biomedical Engineering, Vol. 12, Issue 1, December 2019.
26. Rajesh G., Ashvini Chaturvedi, "Correlation analysis and statistical characterization of heterogeneous sensor data in environmental sensor networks", Computer Networks, Volume 164, 9 December 2019, Article number 106902.
27. Laxminidhi T., Yajunath Kaliyath, "A 1.8 V 8.62 μW Inverter-based Gain-boosted OTA with 109.3 dB dc Gain for SC Circuits", IETE Journal of Research, Volume 65, Issue 6, 2 November 2019, Pages 749-757.
28. Rajesh G., Ashvini Chaturvedi, "A Robust Pansharpening Algorithm Based on Convolutional Sparse Coding for Spatial Enhancement", IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing Volume 12, Issue 10, October 2019, Article number 8889992, Pages 4024-4037.
29. Sreenivasulu, G. Hanumantha Rao, S. Rekha, M. S. Bhat, "A 0.3 V, 56 dB DR, 100 Hz fourth order low-pass filter for ECG acquisition system", Microelectronics Journal, Elsevier Publications, Vol. 94, 2019, https://doi.org/10.1016/j.mejo.2019.104652.
30. Prashant Kharat, Muralidhar Kulkarni, "Modified QUIC Protocol (ModQUIC) for Improved Network Performance and Comparison with QUIC and TCP", International Journal of Internet Protocol Technology, Vol. 12, No. 1, (2019), pp. 35-43.

31. Prashant Kharat, Muralidhar Kulkarni, "Congestion controlling schemes for high-speed data networks: A survey", Journal of High Speed Networks Vol.25, Issue 1, (2019) pp. 41–60.
32. Jayaram Reddy M. K., Laxminidhi T., "1.8 V, 25.9 nW, 91.86 dB dynamic range second-order lowpass filter tunable in the range 4-100 Hz", IET Circuits, Devices and Systems, Volume 13, Issue 7, 1 October 2019, Pages 1086-1092.
33. Rekha S., Vasantha M.H. and Laxminidhi T., "Ultra low voltage, power efficient continuous time filters in 180 nm CMOS technology", IETCircuits, Devices and Systems, Volume 13, Issue 7, 1 October 2019, Pages 988-997.
34. Vasudeva Reddy, K., Prashantha Kumar, H., "Inductor-less PVT robust gain switching balun LNA for multistandard applications", International Journal of Electronics, Volume 106, Issue 9, 2 September 2019, Pages 1412-1426.
35. Kalpana G. Bhat, T. Laxminidhi and M S Bhat, "A compact 4-to-8-bit nonbinary SAR ADC based on 2 bits per cycle DAC architecture", Sādhanā, Springer Publications, June 2019, 44: 137.
36. M.A.N.S, R., Acharya, U.S., "Non-orthogonal space–frequency block codes from cyclic codes for wireless systems employing MIMO-OFDM with index modulation", Physical Communication, June 2019, 34, pp. 174-187.
37. Srinidhi, C.L., Aparna, P.and Rajan, J., "Automated Method for Retinal Artery/Vein Separation via Graph Search Metaheuristic Approach", IEEE Transactions on Image Processing, Volume 28, Issue 6, June 2019, Pages 2705-2718.
38. Abhishek M. B., N S V Shet, "Cyber physical system perspective for smart water management in a campus, Desalination and Water Treatment", Volume 147, April 2019, Pages 296-307.
39. Ashish Patil, N S V Shet, "Improving Download Throughput by Saving the Transmission Bandwidth in Vehicular Networks", Arabian Journal for Science and Engineering, Volume 44, Issue 4, 1 April 2019, Pages 3967-3976.
40. Nagaraj, Y., Hema Sai Teja, A., Narasimhadhan, A.V. "Automatic Segmentation of Intima Media Complex in Carotid Ultrasound Images Using Support Vector Machine", Arabian Journal for Science and Engineering, Volume 44, Issue 4, 1 April 2019, Pages 3489-3496.
41. Ragesh Rajan M., Deepu Vijayasenan, Vijayakumar A., "Predicting Gamakas-The Essential Embellishments in Karnatic Music", IEEE Access, Volume 7, 2019, Article number 8918422, Pages 175386-175395.
42. G. Hanumantha Rao and S. Rekha**,** "An area-efficient, large time-constant log domain filter for low- frequency applications", International Journal of Circuit Theory and Applications, Wiley Publishers, 2019, pp.1-11, https://doi.org/10.1002/cta.2726.
43. Asha C S and A. V. Narasimhadhan, "A Comparative Study of Illumination Invariant Techniques in Video Tracking Perspective", IETE Technical Review, 2019.
44. Karuna Kumari Eerapu, Balraj Aswath, Shyam Lal, Fabio DellAcqua and A. V. Narasimhadhan, "Dense Refinement Residual Network for Road Extraction from Aerial Imagery Data", IEEE Access, 2019.
45. Sukesh Rao M., Rathnamala Rao, "Experimental investigation on the suitability of flexible pressure sensor for wrist pulse measurement", Health and Technology, Springer, vol. 9(2), pp. 143-151, 2019.
46. RK Veeresha, MK Shilpa, Muralidhara, Rathnamala Rao, Nithin Kumar, "Investigating The Performance Of Electromagnetic Pump Fabricated Using Tool Based Micromachining Setup For Microdelivery Of Fluid", Journal of Mechanical Engineering Research & Developments (JMERD), vol.42(3), pp-66-70, 2019.
47. Divya shree M, Sangeetha A and Prabu Krishnan, "Design and Analysis of FBG sensor for explosive detection applications", Springer - Plasmonics, pp. 1-7, 2019.

48. Prabu Krishnan,S. Gopikrishna, "Enhanced Optical Wireless Communication System for Bio-signal Monitoring Applications", Springer – Wireless Personal Communications, pp. 1-13, 2019.
49. Revathi Senthil, Anamika Soni, Kushagra Bir, Raghavee Senthil and Prabu Krishnan, "Circular-Pattern Photonic Crystal Fiber for Different Liquids with High Effective Area and Sensitivity", Springer - Plasmonics, pp. 1 - 5, 2019.
50. R. Malavika, K. Prabu, "Design Optimization of a Highly Sensitive Spiral Photonic Crystal Fiber for Liquid and Chemical Sensing Applications", Elsevier – Optical Fiber Technology, vol. 51, pp. 36 - 40, 2019.
51. Malavika Rajeev, Geethu Anna Mathew and Prabu Krishnan, "Analysis of Beam Divergence on FSO Link using PolSK technique", SPIE – Optical Engineering, vol. 58, issue 4, pp. 046109, 2019.
52. Preeti Samhita Pati, Prabu Krishnan, "Modelling of OFDM based RoFSO system for 5G applications over varying weather conditions : A case study", Elsevier – Optik, vol. 184, pp. 313 - 323, 2019.
53. Prabu Krishnan, "Analysis of FSO Systems with SISO and MIMO Techniques", Springer – Wireless Personal Communications, pp. 1-9, 2019
54. Prabu Krishnan, Gaurav Kumar Jha, Anubhav Walia, "Performance Enhancement of BPSK-SIM and DPSK-SIM based FSO Downlink over Atmospheric Turbulence using Aperture Averaging and Receiver Diversity," Springer – Photonics Network Communications, pp. 1-9, 2019.
55. Prabu Krishnan and Dhanashree Nasre, "Design and analysis of a novel optical circulator based on photonic crystal for photonic integrated circuit applications", Springer – Plasmonics, pp. 1-7, 2019.
56. AlaaDdin Al-Shidaifat, Shubhro Chakrabartty , Sandeep Kumar, Suvojit Acharjee, Hanjung Song "A Novel Characterization and PerformanceMeasurement of Memristor Devices for Synaptic Emulators in Advanced Neuro-Computing"Micromachines MPDI, Accepted 2020 (Indexed by SCI, IF=2.45).
57. Neeta Singh, M.T Beg, Sachin Gupta, B. K. Kanuajia, M. MAINUDDIN, Sandeep Kumar*"A Compact and Efficient Graphene FET Based RF Energy Harvester for Green Communication"*International Journal of Electronics and Communication (AEU) Eleviser, (Indexed by SCI, IF=2.85).
58. Neeta Singh, M.T Beg, Sachin Gupta, B. K. Kanuajia, M. MAINUDDIN, Sandeep Kumar "A Compact Broadband GFET Based Rectenna for RF Energy Harvesting Applications" Microsystem Technologies, Springer (Indexed by SCI, IF=1.51).
59. Rajesh Kumar, Binod Kumar Kanuajia, Santanu Dwari, Sandeep Kumar and Hanjung song "A Novel Performance of Cascode Class EF-1 PA with Buit-in Techniques For UWB Radar Towards Monitoring of Patient Actions" IET Circuits, Devices and Systems doi: 10.1049/iet-cds.2019.0241 2019. (Indexed by SCI, IF=1.4).
60. Chamindra Jayawickrama, Sandeep Kumar, Shubro Chakrabartty, Hanjung Song *"A novel chaotic modulation approach of packaged antenna for secured wireless medical sensor network in E-healthcare applications"* (Wiley) Microw Opt Technol Lett. 2019; 1-10(Indexed by SCI, IF=0.94).
61. Rajesh Kumar, Binod Kumar Kanuajia, Santanu Dwari, Sandeep Kumar and Hanjung song *"An integrated cascade DE power amplifier for RF calibration system towards measurement of Biosensor Applications"* (Wiley) Microw Opt Technol Lett. 2019; 61:31–36. (Indexed by SCI, IF=0.9).
62. Mandeep Singh, S. K Raghuwanshi, and O. Prakash, Ultra-sensitive Fiber Optic Gas Sensor Using Graphene Oxide Coated Long Period Gratings", IEEE Photonics Technology Letters, vol. 31, no. 17, pp. 1473 - 1476, 2019.
63. Mandeep Singh, S.K Raghuwanshi and T. Srinivas, "Nanophotonic on-chip hybrid plasmonic electro-optic

modulator with Phase change materials", Physics Letters A, vol. 383, no. 25, pp. 3196-3199, 2019.

64. Mandeep Singh, and A. Datta, "LSPR Excitation on Au Nanorings from Integrated Hybrid Plasmonic Aperture Waveguide and its Application in Methanol Detection in the IR-band," IEEE Sensors Journal, vol. 19, no. 15, pp. 6119 – 6125, 2019.
65. Mandeep Singh, S.K Raghuwanshi and O. Prakash, "Modeling of Grating assisted Hybrid Plasmonic Filter and its On-Chip gas Sensing Application," IEEE Sensors Journal, vol. 19, no. 11, pp. 4039 - 4044, 2019.

DEPARTMENT OF INFORMATION TECHNOLOGY

1. Karthik N and V. S. Ananthanarayana, "Trust based Data gathering in Wireless Sensor Networks", Springer Journal on Wireless Personnel Communications 108 (4) May, 2019.DOI: 10.1007/s11277-019-06491-y
2. Karthik N and V. S. Ananthanarayana, "Context Aware Trust Management Scheme for Pervasive Healthcare", Springer Journal on Wireless Personnel Communications. Vol. 105, Issue 3, pp 725-763. April, 2019 https://link.springer.com/article/10.1007/s11277-018-6091-9 https://doi.org/10.1007/s11277-018-6091-9
3. Sakthi Murugan R and V. S. Ananthanarayana , "WordCode using WordTrie", Elsevier Journal of King Saud University - Computer and Information Sciences, June2019. https://doi.org/10.1016 /j.jksuci.2019.05.011
4. Rathinaraja Jeyaraj, V. S. Ananthanarayana and Anand Paul "Dynamic ranking-based MapReduce job scheduler to exploit heterogeneous performance in a virtualized environment", The Journal of Supercomputing (Springer Journal), August 2019. https://doi.org/10.1007/s11227-019-02960-0
5. Rathinaraja Jeyaraj, V. S. Ananthanarayana and Anand Paul "Fine-grained data-locality aware MapReduce job scheduler in a virtualized environment"Journal of Ambient Intelligence and Humanized Computing (Springer), 2020. (SCIE and Scopus, IF: 1.9) DOI: 10.1007/s12652-020-01707-7
6. Rathinaraja Jeyaraj, V. S. Ananthanarayana and Anand Paul "Improving performance of MapReduce Scheduler for Heterogeneous Workloads in a Heterogeneous Environment "Concurrency and Computation: Practice and Experience (Wiley), 2019. (SCIE and Scopus, IF: 1.1) DOI: 10.1002/cpe.5558
7. Ashwin T S and Ram Mohana Reddy Guddeti, "Impact of Inquiry Interventions on Students in E-Learning and Classroom Environments using Affective Computing Framework", Springer User Modeling and User-Adapted Interaction, pp. 1-43, 4 Jan. 2020,DOI:https://doi.org/10.1007/s11257-019-09254-3(SCI/Scopus).
8. Ashwin T S and Ram Mohana Reddy Guddeti, "Unobtrusive Behavioral Analysis of Students in Classroom Environment using Non-Verbal Cues", IEEE Access, Vol. 7, Issue 1, pp. 150693-150703, Dec. 2019, DOI: https://doi.org/10.1109/ACCESS.2019.2947519(SCI/Scopus).
9. Ashwin T S and Ram Mohana Reddy Guddeti, "Automatic Detection of Students' Affective States in Classroom Environment Using Hybrid Convolutional Neural Networks", Springer Education and Information Technologies, pp. 1-29, First Online: 28 October 2019.DOI: https://doi.org/10.1007/s10639-019-10004-6(Scopus Indexed).
10. Md. Shahzad Alam, Natesha B V, Ashwin T.S, and G. Ram Mohana Reddy, "UAV based Cost-Effective Real-Time Abnormal Event Detection using Edge Computing", Springer Multimedia Tools & Apps., pp. 1-16, Online: 29 Aug. 2019, DOI: https://doi.org/10.1007/s11042-019-08067-1 (SCI/Scopus).

11. Sujit Gupta, Ashwin T S and Ram Mohana Reddy G, "Students' Affective Content Analysis in Smart Classroom Environment using Deep Learning Techniques", Springer Multimedia Tools and Applications, Vol. 78, Issue 18, pp. 25321-25348, Sept. 2019 DOI: https://doi.org/10.1007/s11042-019-7651-z(SCI/Scopus Indexed).
12. Abhishek Tripathi, Ashwin T S and Ram Mohana Reddy G, "EmoWare: A Context-Aware Framework for Personalized Video Recommendation Using Affective Video Sequences", IEEE Access, Vol. 7, pp. 51185-51200, April 2019, DOI: 10.1109/ACCESS.2019.2911235 (SCI/Scopus).
13. Tushaar Gangavarapu, Gokul S Krishnan and Sowmya Kamath S, "*FarSight*: Long-Term Disease Prediction Using Unstructured Clinical Nursing Notes", IEEE Transactions on Emerging Topics in Computing, ISSN: 2168-6750, 2020 (10.1109/TETC.2020.2975251) [SCI, IF: 4.989] (Online)
14. Tushaar Gangavarapu, Aditya Jayasimha, Gokul S Krishnan and Sowmya Kamath S, "Predicting ICD-9 Code Groups with Fuzzy Similarity based Supervised Multi-Label Classification of Unstructured Clinical Nursing Notes", Knowledge Based Systems, Elsevier, Volume 190, ISSN: 1532-0464, 2019 (10.1016/j.knosys.2019.105321) [SCI, IF: 5.101] (Online)
15. Gokul S Krishnan and Sowmya Kamath S, "A Novel GA-ELM Model for Patient-specific Mortality Prediction over Large-scale Lab Event Data", Applied Soft Computing, Elsevier, Volume 80, July 2019, Pages 525-533, ISSN: 1568-4946, 2019 (10.1016/j.asoc.2019.04.019) [SCI, IF: 4.873] (Online)
16. Karthik K, Sowmya Kamath S, "Swarm Optimization Based Bag of Visual Words Model for Content-Based X-Ray Scan Retrieval", International Journal of Biomedical Engineering and Technology (IJBET), Inderscience., ISSN:1752-6426, 2020 (ESCI & Scopus) (In press)
17. Aditya Jayasimha, Rahul M, Pavan P, Sowmya Kamath S, "Nature-inspired Query Optimization Models for Medical Information Retrieval with Relevance Feedback", International Journal of Advanced Intelligence Paradigms, Inderscience Publishers, ISSN 1755-0394 (Scopus) (In press)
18. Gokul S Krishnan and Sowmya Kamath S, "Ontology-driven Text Feature Modeling for Disease Prediction using Unstructured Radiological Notes", Computación y Sistemas (CyS), Vol 23, No 3 (2019), pp 915-922, ISSN 2007-9737, [DOI: 10.13053/CyS-23-3-3238] [Scopus] (Online)
19. R. Anusha and C. D. Jaidhar, "Clothing invariant human gait recognition using modified local optimal oriented pattern binary descriptor", Multimedia Tools and Applications (2020) 79:2873–2896.
20. R. Anusha and · C. D. Jaidhar, "Human gait recognition based on histogram of oriented gradients and Haralick texture descriptor", Multimedia Tools and Applications (2020) 79:8213–8234.
21. TushaarGangavarapu, C. D. Jaidhar and BhabeshChanduka, "Applicability of machine learning in spam and phishing email filtering: review and approaches" Artificial Intelligence Review, https:// doi.org/10.1007/s10462-020-098149
22. Sanjay Bankapur and Nagamma Pail, "ProgSIO-MSA: Progressive based Single Iterative Optimization Framework for Multiple Sequence Alignment using an Effective Scoring System". Journal of Bioinformatics and Computational Biology, World Scientific,Vol 18, Article 2050005, 2020. (Published) [SCIE and SCOPUS indexed]
23. "Prince Kumar, Sanjay Bankapur and Nagamma Pail, "An enhanced protein secondary structure prediction using deep learning framework on hybrid profile based features". Applied Soft Computing, 86, p.105926, Elsevier, 2020. (Published) [SCIE and SCOPUS indexed]
24. "Sanjay Bankapur and Nagamma Pail, "Enhanced Protein Structural Class

Prediction using Effective Feature Modeling and Ensemble of Classifiers". IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2020. (In Press) [SCIE and SCOPUS indexed]

25. T. Gangavarapu and N. Patil. "A Greedy Approach Optimized Using Genetic Algorithm to Reduce the Dimensionality of High-Dimensional Bio-Medical Datasets." Special Issue on Bio-Inspired optimization Techniques for BioMedical Data Analysis: Methods and Applications, Vol 81, art. no. 105538, Applied Soft Computing, Elsevier, Impact Factor 4.87 (SCI and Scopus indexed)
26. Kiranpreet Kaur; Nagamma Patil, " A fast and novel approach based on grouping and weighted mRMR for feature selection and classification of protein sequence data" International Journal of Data Mining and Bioinformatics (IJDMB), Inderscience, Vol.23 No.1, pp 47 - 61((SCI and Scopus indexed)
27. Nagaraj Naik, Biju R Mohan, "Intraday Stock Prediction Based on Deep Neural Network" National Academy Science Letters, Springer Link, 2019.
28. Mr. Dinesh Naik, "Fast interactive superpixel based image region generation" International Journal of Innovative Technology and Exploring Engineering, 2019
29. Mamatha K. M. and Kiran M., "*Firefly Algorithm for Self Organization of Mobile Wireless Sensor Network*," Journal of Communications vol. 15, no. 3, pp. 270-275, March 2020. Doi: 10.12720/jcm.15.3.270-275, SCOPUS

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

1. Savitha G and P. Jidesh "A Holistic Deep Learning Approach for Identification and Classification of Sub-solid Lung Nodules in Computed Tomographic Scans", Computers and Electrical Engineering (Elsevier), 84, 1-14, 2020.https://doi.org/10.1016/j.compeleceng.2020.106626
2. I.P. Febin, P. Jidesh . A Retinex Based Variational Model for Enhancement and Restoration of Low Contrast Remote Sensed Images Corrupted by Shot Noise, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensining, 13, 941 - 949, 2020, https://doi.org/10.1109/JSTARS.2020.2975044
3. P.Jidesh and I.P. Febin, A perceptually inspired variational model for enhancing and restoring remote sensing images, IEEE Geoscience and Remote Sensing Letters, accepted for publication.
4. G. Savitha and P. Jidesh, A fully-automated system for identification and classification of subsolid nodules in lung Computed Tomographic scans, Biomedical Signal Processing and Control (Elsevier), 1-5, 2020. https://doi.org/10.1109/LGRS.2020.2969411
5. S. Holla K., P. Jidesh , Multiple-Coil Magnetic Resonance Image Denoising and Deblurring With Nonlocal Total Bounded Variation, IETE-Technical Review (Taylor & Francis), 2020. https://doi.org/10.1080/02564602.2019.1617202.
6. Shubha VS, Santhosh George, Jidesh P, Third-order derivative-free methods in Banach Spaces for nonlinear ill-posed equations, JACM (Springer), 61, 137-153, 2019.
7. Martin, John Paul, A. Kandasamy et al. "Elucidating the challenges for the praxis of fog computing: An aspect-based study." *International Journal of Communication Systems,Wiley* 32, no. 7 (2019): e3926.[SCI].
8. Martin, John Paul, A. Kandasamy, and K. Chandrasekaran. "Mobility aware autonomic approach for the migration of application modules in fog computing environment." *Journal of Ambient Intelligence and Humanized Computing, Springer* (2020): 1-20.[SCI]. (Note: published on March09,2020).
9. Srinivasa Rao Nadiminti and A.Kandasamy, "Entrance Effects of Blood Model Casson Fluid in the Concentric Rings with Inner Ring Rotation", International Journal of Engineering and Advanced Technology (IJEAT), Vol.9, 1919, pp.185 - 189,

DOI: 10.35940/ijeat.A1045.1291S52019.
10. P. Sam Johnson and S. Balaji, "Convergence of operators with closed range", Khayyam Journal of Mathematics, DOI: 10.22034/kjm.2019.88428, Vol 5, No.2, pp 132-138, 2019.
11. Argyros, Ioannis K; George Santhosh; Senapati Kedarnath, "Extending the applicability of the inexact Newton-HSS method for solving large systems of nonlinear equations", Numerical Algorithms, Vol 83, pp 333-353, 2020.
12. Argyros, Ioannis K; George Santhosh; Senapati Kedarnath, "Extended local convergence for Newton-type solver under weak conditions", Studia UBB Mathematica, Accepted, 2020.
13. H. SeetharamaTantry, MurulidharN.N., K. Chandrasekaran,"FLAHP Methodology to Adopt towards Cloud Computing", International Journal of Recent Technology and Engineering(IJRTE), DOI:10.35940/ijrte.E6682.018520, ISSN 2277-3878, Volume 8, No.5,pp 4330-4337,January 2020
14. H. SeetharamaTantry, MurulidharN.N., K. Chandrasekaran,"Impact Analysis of Legacy System Migration to the Cloud Environment: A Focused Study", International Journal of Advanced Trends in Computer Science and Engineering, https://doi.org/10.30534/ijatcse/2020/21912020, ISSN 2278-3091, Volume 9, No.1,pp134-141,January –February 2020
15. Shankar Bangalore Ramesh, Chetana U V: A Devaney-Chaotic Map with Positive Entropy on a Symbolic Space, DOI 10.4234/CKMS.c180217, Vol 34
16. Stanimirović, P. S., Roy, F., Gupta, D. K., & Srivastava, S. "Computing the Moore-Penrose inverse using its error bounds." Applied Mathematics and Computation 371 (2020): 124957.
17. Thilak, A.S., Sujatha V. Shet, and S. S. Kamath. "Changing and unchanging efficient domination in graphs with respect to edge addition." *Mathematics in Engineering, Science & Aerospace (MESA)* Vol. 11, no. 1 (2020).
18. Kamath, S. S., Thilak, A. S. and Rashmi, M., Algorithmic aspects of k-part degree restricted domination in graphs, Discrete Mathematics, Algorithms and Applications (Accepted - March 26, 2020)
19. S M Hegde and Suresh Dara, "Further results on Erdos-Faber-Lovasz conjecture", AKCE International Journal of Graphs and Combinatorics, DOI.ORG/10.1016/J.AKCEJ.2019.
20. Shetty, D. Pushparaj, and M. Prasanna Lakshmi. "Approximation algorithms for minimum power k backbone node r-connected subgraph problem in wireless sensor networks." Discrete Mathematics, Algorithms and Applications Vol. 12, No. 01, 2050012 (2020)
21. Naik, Chandra, and D. Pushparaj Shetty. "Differential Evolution Meta-Heuristic Scheme for k-Coverage and m-Connected Optimal Node Placement in Wireless Sensor Networks." *Int. J. Comput. Inf. Syst. Ind. Manag. Appl* 11 (2019): 132-141.
22. D.P Shetty, Lakshmi, M. Prasanna. "Minimizing the maximum sender interference by deploying additional nodes in a wireless sensor network." *Electronic Journal of Graph Theory and Applications (EJGTA)* 7.1 (2019): 169-182.
23. Lakshmi, M. Prasanna, and Shetty Pushparaj D. "Optimal algorithm for minimizing interference with two power levels in wireless sensor networks." Journal of Communications 14(12), pp. 1198-1204 (2019).
24. Shetty, D.P., Lakshmi, M.P. Approximation algorithm for receiver interference problem in dual power Wireless Sensor Networks. *J. Appl. Math. Comput.*61**,** 87–99 (2019). https://doi.org/10.1007/s12190-019-01242-5
25. V. Murugan, M. Suresh Kumar, Subcommuting and Comparable Iterative Roots of Order Preserving Homeomorphisms, Arab J. Math. Sci. (2019). https://doi.org/10.1016/j.ajmsc.2019.10.003
26. V. Murugan, G. Chaitanya, Relation between the kneading matrices of conjugate maps, Commun. Korean Math. Soc., 35 (2020) 571-589.

https://doi.org/10.4134/CKMS.c190255.
27. Argyros, I.K., George, S., Expanding the applicability of an iterative regularization method for ill-posed problems (2019), Journal of Nonlinear and Variational Analysis, 3 (3), pp. 257-275. DOI: 10.23952/jnva.3.2019.3.03
28. Argyros, I.K., George, S., Magreñán, A., Improved semi-local convergence of the Newton-HSS method for solving large systems of equations,(2019) Applied Mathematics Letters, 98, pp. 29-35. DOI: 10.1016/j.aml.2019.04.032
29. Argyros, I.K., Cho, Y.J., George, S., Xiao, Y.-B., Expanding the applicability of an a posteriori parameter choice strategy for Tikhonov regularization of nonlinear ill-posed problems (2019) Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas, 113 (3), pp. 2813-2826. DOI: 10.1007/s13398-019-00657-w
30. Sreedeep, C.D., George, S., Argyros, I.K. Extended Newton-type iteration for nonlinear ill-posed equations in Banach space (2019) Journal of Applied Mathematics and Computing, 60 (1-2), pp. 435-453. DOI: 10.1007/s12190-018-01221-2
31. Argyros, I.K., George, S. On the complexity of choosing majorizing sequences for iterative procedures (2019) Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas, 113 (2), pp. 1463-1473. DOI: 10.1007/s13398-018-0561-5
32. Argyros, I.K., George, S., A Broyden-type Banach to Hilbert space scheme for solving equations (2019) Panamerican Mathematical Journal, 29 (2), pp. 93-103.
33. Argyros, I.K., George, S., Extended semi-local convergence of Newton's method on lie groups using restricted regions (2019) Communications on Applied Nonlinear Analysis, 26 (2), pp. 92-102.
34. Argyros, I.K., George, S., Unified Convergence for Multi-Point Super Halley-Type Methods with Parameters in Banach Space (2019) Indian Journal of Pure and Applied Mathematics, 50 (1), DOI: 10.1007/s13226-019-0302-2
35. Argyros, I.K., Khattri, S.K., George, S., Local convergence of an at least sixth-order method in Banach spaces (2019) Journal of Fixed Point Theory and Applications, 21 (1), art. no. 23, DOI: 10.1007/s11784-019-0662-6
36. Argyros, I.K., George, S., Kantorovich-Like Convergence Theorems for Newton's Method Using Restricted Convergence Domains, (2019) Numerical Functional Analysis and Optimization, 40 (3), pp. 303-318. DOI: 10.1080/01630563.2018.1554582
37. Argyros, I.K., George, S., On a Two-Step Kurchatov-Type Method in Banach Space (2019) Mediterranean Journal of Mathematics, 16 (1), art. no. 21, . Cited 1 time. DOI: 10.1007/s00009-018-1285-7
38. Argyros, I.K., George, S., Unified convergence analysis of frozen Newton-like methods under generalized conditions (2019) Journal of Computational and Applied Mathematics, 347, pp. 95-107. DOI: 10.1016/j.cam.2018.08.010
39. Argyros, I.K., George, S., Local convergence for an eighth order method for solving equations and systems of equations (2019) Nonlinear Engineering, 8 (1), pp. 74-79. DOI: 10.1515/nleng-2017-0105
40. Argyros, I.K., George, S., Convergence for variants of chebyshev-halley methods using restricted convergence domains (2019) Applicationes Mathematicae, 46 (1), pp. 115-126. DOI: 10.4064/am2321-4-2017
41. Argyros, I.K., George, S., Local comparison of two sixth order solvers in banach space under weak conditions (2019) Advances in the Theory of Nonlinear Analysis and its Applications, 3 (4), pp. 220-230. DOI: 10.31197/atnaa.581855
42. Argyros, I.K., George, S., Ball comparison for three optimal eight order methods under weak conditions (2019) Studia Universitatis Babes-Bolyai Mathematica, 64 (3), pp. 421-431. Cited 1 time. DOI: 10.24193/subbmath.2019.3.12

43. Argyros, I.K., George, S., Local convergence analysis of two competing two-step iterative methods free of derivatives for solving equations and systems of equations (2019) Mathematical Communications, 24 (2), pp. 263-276.
44. Argyros, I.K., George, S., Local convergence for a quadrature based third-order method using only the first derivative (2019) Applied Mathematics E - Notes, 19, pp. 220-227.
45. Argyros, I.K., George, S., Local convergence analysis of a modified Newton-Jarratt's composition under weak conditions (2019) Commentationes Mathematicae Universitatis Carolinae, 60 (2), pp. 219-229. DOI: 10.14712/1213-7243.2019.005
46. Sreedeep, C.D., George, S., Argyros, I.K., Newton–Kantorovich regularization method for nonlinear ill-posed equations involving m- accretive operators in Banach spaces (2019) Rendiconti del Circolo Matematico di Palermo, DOI: 10.1007/s12215-019-00413-4
47. Kanagaraj, K., Reddy, G.D., George, S., Discrepancy principles for fractional Tikhonov regularization method leading to optimal convergence rates ,(2019) Journal of Applied Mathematics and Computing, DOI: 10.1007/s12190-019-01309-3
48. Argyros, I.K., George, S., Erappa, S.M., Extending the applicability of high-order iterative schemes under Kantorovich hypotheses and restricted convergence regions (2019) Rendiconti del Circolo Matematico di Palermo. DOI: 10.1007/s12215-019-00460-x
49. Argyros, I.K., George, S., Erappa, S.M., Local convergence of a novel eighth order method under hypotheses only on the first derivative (2019) Khayyam Journal of Mathematics, 5 (2), pp. 96-107. DOI: 10.22034/kjm.2019.88082
50. Argyros, I.K., Cho, Y.J., George, S. Improved local convergence analysis for a three point method of convergence order 1.839. (2019) Bulletin of the Korean Mathematical Society, 56 (3), pp. 621-629. DOI: 10.4134/BKMS.b180429
51. Argyros, I.K., George, S., Godavarma, C., Magreñán, A.A., Extended convergence analysis of the newton-hermitian and skew-Hermitian splitting method (2019) Symmetry, 11 (8), art. no. 981, . DOI: 10.3390/sym11080981
52. R. Madhusudhan, and C.S. Nayak, “A robust authentication scheme for telecare medical information systems,” Multimedia Tools and Applications, vol. 78, no. 11, pp. 15255-15273, 2020
53. R. Madhusudhan, and C.S. Nayak, “A robust authentication scheme for telecare medical information systems,” Multimedia Tools and Applications, vol. 78, no. 11, pp. 15255-15273, 2019
54. R. Madhusudhan, and R. Shashidhara, “Mobile user authentication protocol with privacy preserving for roaming service in GLOMONET,” Peer-to-Peer Networking and Applications, vol. 13, no. 1, pp. 82-103, 2020.
55. R. Madhusudhan, and R. Shashidhara, “A novel DNA based password authentication system for global roaming in resource-limited mobile environments,” Multimedia Tools and Applications, vol. 79, no. 3, pp. 2185-2212, 2020
56. R. Madhusudhan, and R. Shashidhara, “A Secure Anonymous Authentication Protocol for Roaming Service in Resource-Constrained Mobility Environments,” Arabian Journal for Science and Engineering, pp. 1-22, 2019
57. R. Madhusudhan, and K.S. Suvidha, “A secure lightweight two-factor authentication scheme in global mobility networks,” International Journal of Space-Based and Situated Computing, vol. 9, no. 2, pp. 109-123, 2019
58. R. Madhusudhan, and K.S. Suvidha, “A Secure and Lightweight Authentication Protocol for Mobile User Preserving Privacy in Global Mobility Networks,” Procedia Computer Science, vol. 171, pp. 907-916, 2020
59. Niranjan P K and Srinivasa Rao Kola, “The k-distance chromatic number of trees and cycles”, AKCE International Journal of Graphs and Combinatorics,

DOI: 10.1016/ j.akcej.2019.06.006. Vol. 16, no. 2, pp 230-235, 2019.
60. Niranjan P K and Srinivasa Rao Kola, "On the Radio *k*-chromatic Number of Some Classes of Trees" International Journal of Applied and Computational Mathematics, DOI: 10.1007/s40819-020-0778-9, Vol. 6, no. 24, 2020.
61. Niranjan P K and Srinivasa Rao Kola, "On the radio number for corona of paths and cycles", AKCE International Journal of Graphs and Combinatorics DOI; /10.1016/j.akcej. 2019.06.006, 2019.
62. G Chandhini, KS Prashanthi, V A Vijesh, "Direct and integrated radial basis function schemes for nonlinear fractional differential equations", BIT Numerical Mathematics, Vol 60, 31-65, 2020.
63. Rupsha Roy, V Vijesh, G Chandhini, "Iterative methods for a fractional order Volterra population model", Journal of Integral Equations and Applications, Vol 31, Issue 2, 245-264, 2019.
64. Santhosh George, I K Argyros, G Chandhini, AA Magreñán, Extended convergence analysis of the Newton-HSS method for solving large systems of equations, Symmetry, Vol 11, Issue 8, 981, 2019.

DEPARTMENT OF MECHANICAL ENGINEERING

1. K.R. R., Bontha S., M.R. R., Das M., Balla V.K., "Laser surface melting of Mg-Zn-Dy alloy for better wettability and corrosion resistance for biodegradable implant applications", Applied Surface Science, 10.1016/j.apsusc.2019.02.167, 480, 70-82, 2019.
2. Karki P., Yadav A.K., Perumal D.A., "Study of adiabatic obstacles on natural convection in a square cavity using lattice boltzmann method", Journal of Thermal Science and Engineering Applications, 10.1115/1.4041875, 11(3), 2019.
3. Doddamani M., "Effect of surface treatment on quasi-static compression and dynamic mechanical analysis of syntactic foams", Composites Part B: Engineering, 10.1016/j.compositesb.2019.01.076, 165, 365-378, 2019.
4. Manakari V., Parande G., Doddamani M., Gupta M., "Evaluation of wear resistance of magnesium/glass microballoon syntactic foams for engineering/biomedical applications", Ceramics International, 10.1016/j.ceramint.2019.01.207, 45(7), 9302-9305, 2019.
5. Singh A.K., Deptula A.J., Anawal R., Doddamani M., Gupta N., Additive Manufacturing of Three-Phase Syntactic Foams Containing Glass Microballoons and Air Pores, JOM, 10.1007/s11837-019-03355-5, 71(4), 1520-1527, 2019.
6. Ayodhya A.S., Lamani V.T., Thirumoorthy M., Kumar G.N., "NOx reduction studies on a diesel engine operating on waste plastic oil blend using selective catalytic reduction technique", Journal of the Energy Institute, 10.1016/j.joei.2018.01.002, 92(2), 341-350, 2019.
7. Chavan S., Gumtapure V., Arumuga Perumal D., "Computational investigation of bounded domain with different orientations using CPCM", Journal of Energy Storage, 10.1016/j.est.2019.02.018, 22, 355-372, 2019.
8. Kotresha B., Gnanasekaran N., "Determination of interfacial heat transfer coefficient for the flow assisted mixed convection through brass wire mesh", International Journal of Thermal Sciences, 10.1016/j.ijthermalsci.2018.12.043, 138, 98-108, 2019.
9. Vishweshwara P.S., Gnanasekaran N., Arun M., "Simultaneous estimation of unknown parameters using a-priori knowledge for the estimation of interfacial heat transfer coefficient during solidification of Sn–5wt%Pb", Sadhana - Academy Proceedings in Engineering Sciences, 10.1007/s12046-019-1076-2, 44(4), 2019.
10. Anarghya A., Rao S.S., Herbert M.A., Navin Karanth P., Rao N., "Investigation of errors in microcontroller interface circuit for mutual inductance sensor",

Engineering Science and Technology, an International Journal, 10.1016/j.jestch.2018.11.011, 22(2), 578-591, 2019.

11. Kadlimatti H.M., Raj Mohan B., Saidutta M.B., Bio-oil from microwave assisted pyrolysis of food waste-optimization using response surface methodology, Biomass and Bioenergy, 10.1016/j.biombioe.2019.01.014, 123, 25-33, 2019
12. Bekinal S.I., Doddamani M., Vanarotti M., Jana S., "Generalized optimization procedure for rotational magnetized direction permanent magnet thrust bearing configuration", Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 10.1177/0954406218786976, 233(7), 2563-2573, 2019.
13. Badiger R.I., Narendranath S., Srinath M.S., Hebbale A.M., "Effect of Power Input on Metallurgical and Mechanical Characteristics of Inconel-625 Welded Joints Processed Through Microwave Hybrid Heating", Transactions of the Indian Institute of Metals, 10.1007/s12666-018-1537-z, 72(3), 811-824, 2019.
14. D'Souza J.M., Guruprasad K.R., Padman A., "A realistic simulation platform for multi-quadcopter search using downward facing cameras", Computers and Electrical Engineering, 10.1016/j.compeleceng.2019.01.011, 74, 184-195, 2019.
15. Ashrith H.S., Doddamani M., Gaitonde V., "Effect of wall thickness and cutting parameters on drilling of glass microballoon/epoxy syntactic foam composites", Composite Structures, 10.1016/j.compstruct.2018.12.022, 211, 318-336, 2019.
16. Badiger R.I., Narendranath S., Srinath M.S., "Optimization of Process Parameters by Taguchi Grey Relational Analysis in Joining Inconel-625 Through Microwave Hybrid Heating", Metallography, Microstructure, and Analysis, 10.1007/s13632-018-0508-4, 8(1), 92-108, 2019.
17. Xu X., Koomson C., Doddamani M., Behera R.K., Gupta N., "Extracting elastic modulus at different strain rates and temperatures from dynamic mechanical analysis data: A study on nanocomposites", Composites Part B: Engineering, 10.1016/j.compositesb.2018.10.015, 159, 346-354, 2019.
18. Kotresha B., Gnanasekaran N., "A Synergistic Combination of Thermal Models for Optimal Temperature Distribution of Discrete Sources Through Metal Foams in a Vertical Channel", Journal of Heat Transfer, 10.1115/1.4041955, 141(2), 2019.
19. Badiger P.V., Desai V., Ramesh M.R., Joladarashi S., Gourkar H., "Tribological behaviour of monolayer and multilayer Ti-based thin solid films deposited on alloy steel", Materials Research Express, 10.1088/2053-1591/aaef6d, 6(2), 2019.
20. B S., S N., Chakradhar D., "Effect of working parameters on the surface integrity in cryogenic diamond burnishing of 17-4 PH stainless steel with a novel diamond burnishing tool", Journal of Manufacturing Processes, 10.1016/j.jmapro.2019.01.051, 38, 564-571. 2019.
21. Chinnathaypgal V.N., Rangarasaiah R.M., Desai V., Samanta S.K., "Evaluation of Wear Behaviour of Metal Injection Moulded Nickel Based Metal Matrix Composite", Silicon, 10.1007/s12633-018-9843-y, 11(1), 175-185, 2019.
22. Ramesh S., Nayaka H.S., Gopi K.R., Sahu S., "Effect of multiaxial cryoforging on microstructure and mechanical properties of a Cu-Ti Alloy", Materials Research Express, 10.1088/2053-1591/aaf085, 6(2), 2019.
23. Prasad C.D., Joladarashi S., Ramesh M.R., Srinath M.S., Channabasappa B.H., "Microstructure and tribological behavior of flame sprayed and microwave fused CoMoCrSi/CoMoCrSi-Cr 3 C 2 coatings", Materials Research Express, 10.1088/2053-1591/aaebd9, 6(2), 2019.
24. Karthik Rao M.C., Malghan R.L., ArunKumar S., Rao S.S., Herbert M.A., "An Efficient Approach to Optimize Wear Behavior of Cryogenic Milling Process of SS316 Using Regression

Analysis and Particle Swarm Techniques", Transactions of the Indian Institute of Metals, 10.1007/s12666-018-1473-y, 72(1), 191-204, 2019.
25. Ashok B., Nanthagopal K., Arumuga Perumal D., Babu J.M., "An investigation on CRDi engine characteristic using renewable orange-peel oil", Energy Conversion and Management, 10.1016/j.enconman.2018.11.047, 1026-1038, 2019.
26. Kotresha B., Gnanasekaran N., "Effect of thickness and thermal conductivity of metal foams filled in a vertical channel – a numerical study", International Journal of Numerical Methods for Heat and Fluid Flow, 10.1108/HFF-11-2017-0465, 29(1), 184-203, 2019.
27. Allien V.J., Kumar H., Desai V., "Dynamic analysis and optimization of SiC reinforced Al6082 and Al7075 MMCs", Materials Research Express, 10.1088/2053-1591/ab038e, 6(5), 2019.
28. Mahesh V., Joladarashi S., Kulkarni S.M., "Physio-mechanical and wear properties of novel jute reinforced natural rubber based flexible composite", Materials Research Express, 10.1088/2053-1591/ab0164, 6(5), 2019.
29. Sachin B., Narendranath S., Chakradhar D., "Sustainable diamond burnishing of 17-4 PH stainless steel for enhanced surface integrity and product performance by using a novel modified tool", Materials Research Express, 10.1088/2053-1591/aaf900, 6(4), 2019.
30. Varghese V., Ramesh M.R., Chakradhar D., "Influence of deep cryogenic treatment on performance of cemented carbide (WC-Co) inserts during dry end milling of maraging steel", Journal of Manufacturing Processes, 10.1016/j.jmapro.2018.11.030, 37, 242-250, 2019.
31. Kotresha B., Gnanasekaran N., Balaji C., "Numerical Simulations of Flow-Assisted Mixed Convection in a Vertical Channel Filled with High Porosity Metal Foams", Heat Transfer Engineering, 10.1080/01457632.2018.1564208, 2019.
32. Ramesh S., Anne G., Nayaka H.S., Sahu S., Arya S., "Effects of combined multiaxial forging and rolling process on microstructure, mechanical properties and corrosion behavior of a Cu-Ti alloys", Materials Research Express, 10.1088/2053-1591/ab0764, 6(5), 2019.
33. Badiger P.V., Desai V., Ramesh M.R., Prajwala B.K., Raveendra K., "Effect of cutting parameters on tool wear, cutting force and surface roughness in machining of MDN431 alloy using Al and Fe coated tools", Materials Research Express, 6(1), 2019.
34. Sudheer R., Prabhu K.N., "Assessment of PCM-container interfacial heat transfer using a hot/cold probe technique", Heat Transfer - Asian Research, 10.1002/htj.21374, 48(1), 127-134, 2019.
35. Thippeswamy L.R., Yadav A.K., "Heat transfer enhancement using CO2 in a natural circulation loop", Scientific Reports, 10.1038/s41598-020-58432-6, 10, 1507, 2020.
36. Kumar M.K.H., Vishweshwara P.S., Gnanasekaran N., "Evaluation of artificial neural network in data reduction for a natural convection conjugate heat transfer problem in an inverse approach: experiments combined with CFD" Sadhana - Academy Proceedings in Engineering Sciences, 10.1007/s12046-020-1303-x, 45, 78, 2020.
37. Nagamadhu M., Jeyaraj P., Mohan Kumar G.C., "Influence of textile properties on dynamic mechanical behavior of epoxy composite reinforced with woven sisal fabrics", Sadhana - Academy Proceedings in Engineering Sciences, 10.1007/s12046-019-1249-z, 45, 14, 2020.
38. Gunasekaran V., Pitchaimani J., Mailan Chinnapandi L.B., "Analytical investigation on free vibration frequencies of polymer nano composite plate: Effect of graphene grading and non-uniform edge loading", Materials Today Communications, 10.1016/j.mtcomm.2020.100910, 24, 100910, 2020.

39. Prasad C.D., Jerri A., Ramesh M.R., "Characterization and Sliding Wear Behavior of Iron-Based Metallic Coating Deposited by HVOF Process on Low-Carbon Steel Substrate", Journal of Bio- and Tribo-Corrosion, 10.1007/s40735-020-00366-7, 6(3), 69, 2020.
40. Rajesh Kannan A., Mohan Kumar S., Pravin Kumar N., Siva Shanmugam N., Vishnu A.S., Palguna Y., "Process-microstructural features for tailoring fatigue strength of wire arc additive manufactured functionally graded material of SS904L and Hastelloy C-276", Materials Letters, 10.1016/j.matlet.2020.127968, 274, 127968, 2020.
41. Thomas S., Manju M.S., Ajith K.M., Lee S.U., Asle Zaeem M., "Strain-induced work function in h-BN and BCN monolayers", Physica E: Low-Dimensional Systems and Nanostructures, 10.1016/j.physe.2020.114180, 123, 114180, 2020.
42. Patil M.A., Kadoli R., "Differential quadrature solution for vibration control of functionally graded beams with Terfenol-D layer, Applied Mathematical Modelling", 10.1016/j.apm.2020.03.035, 84, 137-157, 2020.
43. Jeyachandran P., Bontha S., Bodhak S., Balla V.K., Kundu B., Doddamani M., "Mechanical behaviour of additively manufactured bioactive glass/high density polyethylene composites", Journal of the Mechanical Behavior of Biomedical Materials, 10.1016/j.jmbbm.2020.103830, 108, 103830, 2020.
44. Duraisamy R., Kumar S.M., Kannan A.R., Shanmugam N.S., Sankaranarayanasamy K., Ramesh M.R., "Tribological performance of wire arc additive manufactured 347 austenitic stainless steel under unlubricated conditions at elevated temperatures", Journal of Manufacturing Processes, 10.1016/j.jmapro.2020.04.073, 56, 306-321, 2020.
45. Kumar M., Isloor A.M., Somasekhara Rao T., Ismail A.F., Farnood R., Nambissan P.M.G., "Removal of toxic arsenic from aqueous media using polyphenylsulfone/cellulose acetate hollow fiber membranes containing zirconium oxide", Chemical Engineering Journal, 10.1016/j.cej.2020.124367, 393, 124367, 2020.
46. Nair V.G., Guruprasad K.R.,"MR-SimExCoverage: Multi-robot Simultaneous Exploration and Coverage", Computers and Electrical Engineering,10.1016/j.compeleceng.2020.106680, 85, 106680, 2020.
47. Rudra Murthy B.V., Gumtapure V.,"Thermo-physical analysis of natural shellac wax as novel bio-phase change material for thermal energy storage applications", Journal of EnergyStorage,10.1016/j.est.2020.101390, 29, 101390, 2020.
48. Doddamani M., "Dynamic mechanical analysis of 3D printed eco-friendly lightweight composite", Composites Communications,10.1016/j.coco.2020.04.002, 19, 177-181, 2020.
49. Nidhul K., Kumar S., Yadav A.K., Anish S., "Enhanced thermo-hydraulic performance in a V-ribbed triangular duct solar air heater: CFD and exergy analysis", Energy, 10.1016/j.energy.2020.117448, 200, 117448, 2020.
50. Do Rosario Carvalho A.D., Vijaya A., "Automated industrial robot arm for three-dimensional measurement and reverse engineering", International Journal of Mechanical and Production Engineering Research and Development,10.24247/ijmperdjun202035, 10(3), 379-390, 2020.
51. Saini R.S.T., Kumar H., Chandramohan S., "Semi-active control of a swing phase dynamic model of transfemoral prosthetic device based on inverse dynamic model", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-020-02387-2, 42(6), 294, 2020.
52. Kumar V., Kempaiah U.N., Satish Babu B., Vijay Kumar S., "Microstructure and microhardness of copper coated multiwalled carbon nanotube-graphene reinforced aluminium 6061 alloy

nanocomposites", International Journal of Mechanical and Production Engineering Research and Development,10.24247/ijmperdjun202033, 10(3), 357-366, 2020.
53. Valder J., Malayathodi R., Kumar P., Rajasekaran S., Raju K., Surendranathan A.O., "Effect of plastic strain and processing routes on the hardness of as-cast aluminum", AIP ConferenceProceedings,10.1063/5.0007404, 2236, 40017, 2020.
54. Vasudeva S.T., Rao S.S., Panambur N.K., Mahabala C., Dakappa P.H., Prasad K., "Diagnostic classification of undifferentiated fevers using artificial neural network", AIP Conference Proceedings, 10.1063/5.0007749, 2236, 70001, 2020.
55. Lamani V.T., Yadav A.K., Gottekere K.N., "Effect of exhaust gas recirculation rate on performance, emission and combustion characteristics of a common-rail diesel engine fuelled with n-butanol–diesel blends",Biofuels,10.1080/17597269.2017.1369631, 11(4), 389-398, 2020.
56. Bala Narasimha G., Murigendrappa S.M., "An investigation on the properties of boron modified Cu–Al–Be polycrystalline shape memory alloys", Journal of Alloys and Compounds, 10.1016/j.jallcom.2020.153733, 823, 153733, 2020.
57. Praveen T.R., Shivananda Nayaka H., Swaroop S., Gopi K.R., "Strength enhancement of magnesium alloy through equal channel angular pressing and laser shock peening", Applied Surface Science, 10.1016/j.apsusc.2020.145755, 512, 145755, 2020.
58. Santhosh K., Kumar G.N., Radheshyam, Sanjay P.V., "Experimental analysis of performance and emission characteristics of CRDI diesel engine fueled with 1-pentanol/diesel blends with EGR technique", Fuel, 10.1016/j.fuel.2020.117187, 267, 117187, 2020.
59. Aruna M.N., Rahman M.R., Joladarashi S., Kumar H., "Investigation of sedimentation, rheological, and damping force characteristics of carbonyl iron magnetorheological fluid with/without additives", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-020-02322-5, 42(5), 228, 2020.
60. Waddar S., Pitchaimani J., Doddamani M., "Effect of thermal loading on syntactic foam sandwich composite", Polymer Composites, 10.1002/pc.25496, 41(5), 1774-1784, 2020.
61. Nair V.G., Guruprasad K.R., "GM-VPC: An Algorithm for Multi-robot Coverage of Known Spaces Using Generalized Voronoi Partition", Robotica, 10.1017/S0263574719001127, 38(5), 845-860, 2020.
62. K.R R., Bontha S., M.R R., Das M., Balla V.K., "Degradation, wettability and surface characteristics of laser surface modified Mg–Zn–Gd–Nd alloy", Journal of Materials Science: Materials in Medicine, 10.1007/s10856-020-06383-9, 31(5), 42, 2020.
63. Kumar M., Isloor A.M., Todeti S.R., Ibrahim G.P.S., Inamuddin, Ismail A.F., Asiri A.M. , "Improved separation of dyes and proteins using membranes made of polyphenylsulfone/cellulose acetate or acetate phthalate", Environmental Chemistry Letters, 10.1007/s10311-020-00965-3, 18(3), 881-887, 2020.
64. Jagadish C., Gumtapure V.,"Experimental studies on cyclic variations in a single cylinder diesel engine fuelled with raw biogas by dual mode of operation", Fuel, 10.1016/j.fuel.2020.117062, 266, 117062, 2020.
65. Kotresha B., Gnanasekaran N., "Numerical Simulations of Fluid Flow and Heat Transfer through Aluminum and Copper Metal Foam Heat Exchanger–A Comparative Study", Heat Transfer Engineering, 10.1080/01457632.2018.1546969, 41, 637-649, 2020.
66. Allien J.V., Kumar H., Desai V., "Semi-active vibration control of MRF core PMC cantilever sandwich beams: Experimental study", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications,

10.1177/1464420720903078, 234(4),574-585, 2020.
67. Janakiraman A., Pemmasani S., Sheth S., Kannan C., Balan A.S.S., "Experimental Investigation and Parametric Optimization on Hole Quality Assessment During Drilling of CFRP/GFRP/Al Stacks ", Journal of The Institution of Engineers (India): Series C", 10.1007/s40032-020-00563-w, 101(2), 291-302, 2020.
68. Agrawal A., Chandrakar S., "Influence of particulate surface treatment on physical, mechanical, thermal, and dielectric behavior of epoxy/hexagonal boron nitride composites", Polymer Composites , 10.1002/pc.25479, 41(4), 1574-1583, 2020.
69. Sreejith B.K., Sathyabhama A., "Experimental and numerical study of laminar separation bubble formation on low Reynolds number airfoil with leading-edge tubercles", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-020-2229-2, 42(4), 171, 2020.
70. Gujjar S.V., Prajapati A.D., Hunashyal A.M., Hallad S., Meti S.,"Investigational study of mwcnt's/silicon oxide nanoparticles/epoxy resin nanocomposite coating on mild steel for anticorrosion and mechanical properties", International Journal of Scientific and Technology Research, 9(4), 3521-3528, 2020.
71. Manu J., Madav V.,"Hydrodynamic effect of elastic and inelastic collisions in fluidized bubbling bed reactor", AIP Conference Proceedings, 10.1063/5.0005565, 2225, 60001, 2020.
72. Vinyas M., Harursampath D., Kattimani S.C., "Thermal response analysis of multi-layered magneto-electro-thermo-elastic plates using higher order shear deformation theory", Structural Engineering and Mechanics, 10.12989/sem.2020.73.6.667, 73(6), 667-684, 2020.
73. Kiran M.C., Kattimani S., "Assessment of Vibrational Frequencies and Static Characteristics of Multilayered Skew Magneto-Electro-Elastic Plates: A Finite Element Study", Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 10.1007/s40997-018-0250-1, 44(1), 61-82, 2020.
74. Allien J.V., Kumar H., Desai V., "Semi-active vibration control of SiC-reinforced Al6082 metal matrix composite sandwich beam with magnetorheological fluid core", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 10.1177/1464420719890374, 234(3), 408-424, 2020.
75. Rao C.M., Rao S.S., Herbert M.A., "An Experimental and Numerical Approach to Study the Performance of Modified Perforated Cutting Tools on Machining of Ti–6Al–4V Alloy", Arabian Journal for Science and Engineering, 10.1007/s13369-019-04268-w, 45(2), 1191-1206, 2020.
76. Shaik S.V., Babu T.P.A., "Theoretical thermodynamic performance assessment of various environment-friendly novel refrigerants used in refrigeration systems", Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 10.1177/0954406219884968, 234(4), 914-934, 2020.
77. Manoj I.V., Joy R., Narendranath S., "Investigation on the Effect of Variation in Cutting Speeds and Angle of Cut During Slant Type Taper Cutting in WEDM of Hastelloy X", Arabian Journal for Science and Engineering, 10.1007/s13369-019-04111-2, 45(2), 641-651, 2020.
78. Chavan S., Gumtapure V., D A.P., "Numerical and experimental analysis on thermal energy storage of polyethylene/functionalized graphene composite phase change materials", Journal of Energy Storage, 10.1016/j.est.2019.101045, 27, 101045, 2020.
79. Sachin B., Narendranath S., Chakradhar D., "Application of Desirability Approach to Optimize the Control Factors in Cryogenic Diamond Burnishing", Arabian Journal for Science and Engineering,

10.1007/s13369-019-04326-3, 45(2), 1305-1317, 2020.
80. Mahesh V., Joladarashi S., Kulkarni S.M., "Slurry erosive study and optimization of material and process parameters of single and hybrid matrix flexible composites using Taguchi approach", AIP Conference Proceedings, 10.1063/1.5141606, 2204, 40033, 2020.
81. Soni H., Narendranath S., Ramesh M.R., Mashinini P.M., "Enhanced process parameters using TOPSIS method during wire electro discharge machining of TiNiCo shape memory alloy", AIP Conference Proceedings, 10.1063/1.5141578, 2204,40005, 2020.
82. Varghese V., Jagmalpuria A., Badiger P.V., Ramesh M., "Optimisation of machining parameters for end milling of maraging steel MDN 250 using TiAlSiN and TiSiN coated WC-Co inserts", AIP Conference Proceedings, 10.1063/1.5141604, 2204,40031, 2020.
83. Mahesh V., Ravichandra H.N., Kattimani S., Nagaraja C.V., "Hygrothermal response analysis of MEE beam embedded in adaptive wood through FE methods", AIP Conference Proceedings, 10.1063/1.5141580, 2204, 40007, 2020.
84. Badiger P.V., Desai V., Ramesh M.R., Vinyas M., Santhosh C.M., Prajwala B.K., Raveendra L., "Influence of Ti coated tools on process parameters in turning process of MDN431", AIP Conference Proceedings, 10.1063/1.5141592, 2204, 40019, 2020.
85. Mahapatra D., Ashok Babu T.P., "Variation of Time Lag, Decrement Factor and Inside Surface Temperature with Solar Optical Properties of Building Envelope in Different Climatic Zones of India", Smart Innovation, Systems and Technologies, 10.1007/978-981-15-1616-0_51, 169, 523-532, 2020.
86. Kolke D.K., M A., Maniyeri R., "Numerical Analysis of Pulsating Flow in a Smooth Constriction Using Immersed Boundary Method", Lecture Notes in Mechanical Engineering, 10.1007/978-981-15-1892-8_20, 237-249, 2020.
87. Vishweshwara P.S., Gnanasekaran N., Arun M., "Inverse approach using bio-inspired algorithm within Bayesian framework for the estimation of heat transfer coefficients during solidification of casting", Journal of Heat Transfer, 10.1115/1.4045134, 142(1), 4045134, 2020.
88. Oommen L.P., Kumar G.N.,"Experimental studies on the impact of part-cooled high-pressure loop EGR on the combustion and emission characteristics of liquefied petroleum gas", Journal of Thermal Analysis and Calorimetry, 10.1007/s10973-020-09762-0, 2020.
89. Shankar V.K., Kunar B.M., Murthy C.S., Ramesh M.R., "Measurement of bit-rock interface temperature and wear rate of the tungsten carbide drill bit during rotary drilling", Friction, 10.1007/s40544-019-0330-2, 2020.
90. Shivashankar H., Sangamesh R., Kulkarni S.M., "Analysis of coefficient of thermal expansion in carbon black filled PDMS composite", Materials Science Forum, 10.4028/www.scientific.net/MSF.978.237, 978, 237-244, 2020.
91. M C K.R., Malghan R.L., Shettigar A.K., Rao S.S., Herbert M.A., "Application of back propagation algorithms in neural network based identification responses of AISI 316 face milling cryogenic machining technique", Australian Journal of Mechanical Engineering, 10.1080/14484846.2020.1740022, 2020.
92. Santhosh K., Gottekere Narayanappa K., "Experimental analysis of a mini truck CRDI diesel engine fueled with n-Amyl alcohol/diesel blends with selective catalytic reduction (SCR) as a DeNOx technique under the influence of EGR", Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 10.1080/15567036.2020.1728441, 2020.
93. Radheshyam, Santhosh K., Kumar G.N., "Effect of 1-pentanol addition and EGR on the combustion, performance and emission

characteristic of a CRDI diesel engine", Renewable Energy, 10.1016/j.renene.2019.06.043, 145, 925-936, 2020.

94. Praveen S.K., Kuchibhatla S.A.R., Singh A.K., Gangadharan K.V., "Performance of magnetorheological elastomer based torsional vibration isolation system for dynamic loading conditions", Journal of Central South University, 10.1007/s11771-020-4284-3, 27(1), 144-154, 2020.
95. Mahesh V., Joladarashi S., Kulkarni S.M., "A comprehensive review on material selection for polymer matrix composites subjected to impact load", DefenceTechnology,10.1016/j.dt.2020.04.002, 2020.
96. Patil A., Bontha S., Ramesh M.R., "Effect of ECAP on sliding wear behaviour of Mg-Zn-Gd-Zr alloy", Materials Today: Proceedings, 10.1016/j.matpr.2019.10.045, 20, 97-102, 2020.
97. Shaik S.V., Ashok Babu T.P., "Theoretical Evaluation of Energy Performance of a Vapour Compression Refrigeration System Using Sustainable Refrigerants ", Smart Innovation, Systems and Technologies, 10.1007/978-981-15-1616-0_35, 169, 361-370, 2020.
98. Mahesh V., Joladarashi S., Kulkarni S.M., "Damage mechanics and energy absorption capabilities of natural fiber reinforced elastomeric based bio composite for sacrificial structural applications", Defence Technology, 10.1016/j.dt.2020.02.013, 2020.
99. Kanchan M., Maniyeri R., "Dynamics of Flexible Filament in Viscous Oscillating Flow", Lecture Notes in Mechanical Engineering,10.1007/978-981-15-1892-8_13, 147-160, 2020.
100. Babu S., Kiran K.N., Tom J.K., Anish S., "Numerical Investigation on Effects of Profiled Endwall Over Purge Flow in Linear Turbine Cascade", Lecture Notes in Mechanical Engineering, 10.1007/978-981-15-1892-8_14, 161-172, 2020.
101. Akula S.C., Maniyeri R., "Numerical simulation of bioheat transfer: a comparative study on hyperbolic and parabolic heat conduction", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-019-2132-x, 42(1), 62, 2020.
102. Sangamesh R., Shivashankar H., Ravishankar K.S., Kulkarni S.M., "Study on ballistic characteristics of glass-epoxy-rubber sandwiches", Materials Science Forum, 10.4028/www.scientific.net/MSF.978.245, 978, 245-249, 2020.
103. Parida R.K., Madav V., Hindasageri V., "Analytical solution to transient inverse heat conduction problem using Green's function", Journal of Thermal Analysis and Calorimetry, 10.1007/s10973-020-09803-8, 2020.
104. Oommen L.P., G. N K., "Experimental studies on the influence of axial and radial fields of sintered neo-delta magnets in reforming the energy utilization combustion and emission properties of a hydrocarbon fuel", Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 10.1080/15567036.2020.1767729, 2020.
105. Ramesh S., Shivananda Nayaka H., "Investigation of Tribological and Corrosion Behavior of Cu-Ti Alloy Processed by Multiaxial Cryoforging", Journal of Materials Engineering and Performance, 10.1007/s11665-020-04833-7, 202
106. Dasari K.K., Gumtapure V., Dutta S., "Upgrading of coconut shell-derived pyrolytic bio-oil by thermal and catalytic deoxygenation ", Energy Sources, Part A: Recovery, Utilization and Environmental Effects,10.1080/15567036.2019.1711465, 2020.
107. Harsha Kumar M.K., Vishweshwara P.S., Gnanasekaran N., "A Surrogate Forward Model Using Artificial Neural Networks in Conjunction with Bayesian Computations for 3D Conduction-Convection Heat Transfer Problem", Advances in Intelligent Systems and Computing, 10.1007/978-981-15-0184-5_33, 1057, 373-384, 2020.
108. Buradi A., Mahalingam A., "Impact of coronary tortuosity on the artery hemodynamics", Biocybernetics and Biomedical Engineering", 10.1016/j.bbe.2019.02.005, 40(1), 126-147, 2020.

109. Kumara, Veershetty G., Ashebir D.H., "Experimental study on desalination system using humidification-dehumidification process with baffles in the dehumidifier", Journal of Engineering Science and Technology, 15(2), 768-777, 2020.
110. Sachinkumar S., Narendranath S., Chakradhar D., "Studies on microstructure and mechanical characteristics of as cast AA6061/SiC/fly ash hybrid AMCs produced by stir casting", Materials Today: Proceedings, 10.1016/j.matpr.2020.01.266, 20, A1-A5, 2020.
111. Gopi K.R., Shivananda N.H., "Impact of ECAP on wear performance of Al-Mn magnesium alloy", Materials Research Express, 10.1088/2053-1591/ab663c, 7(1), 16550, 2020.
112. Sachin S., Nayaka S.H., Santhosh B., Krishna P., "Experimental investigation of mode I interlaminar fracture toughness in T300/914 composite, Materials Today: Proceedings, 10.1016/j.matpr.2020.01.055, 21, 1094-1098, 2020.
113. Mohammad Minhaz Falaki P.M., Padman A., Nair V.G., Guruprasad K.R., "Simultaneous exploration and coverage by a mobile robot", Lecture Notes in Electrical Engineering, 10.1007/978-981-13-9419-5-3, 581, 33-41, 2020.
114. Madhavrao Desai R., Acharya S., Jamadar M.E.H., Kumar H., Joladarashi S., Sekaran S.C.R., "Synthesis of magnetorheological fluid and its application in a twin-tube valve mode automotive damper", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 10.1177/1464420720925497, 2020.
115. Maniyeri R., Kang S., "Numerical Study on the Behavior of an Elastic Capsule in Channel Flow Using Immersed Boundary Method", Lecture Notes in Mechanical Engineering, 10.1007/978-981-15-1892-8_10, 117-124, 2020.
116. Divijesh P., Muralidhara, Rao R., Ahmed R.M., Sushith K., "Design, analysis and testing of flexurally amplified piezoactuator based active vibration isolation system for micromilling", Journal of Mechanical Engineering Research and Developments, 43(3), 431-441, 2020.
117. Marebal D., Guruprasad K.R., "3D printable modules for manually reconfigurable manipulator with desired D-H parameters", Lecture Notes in Electrical Engineering, 10.1007/978-981-13-9419-5_9, 581, 99-112, 2020.
118. Thomas S., Madam A.K., Zaeem M.A., "Stone-Wales Defect Induced Performance Improvement of BC3 Monolayer for High Capacity Lithium-Ion Rechargeable Battery Anode Applications", ACS Applied Materials and Interfaces, 10.1021/acs.jpcc.9b11441, 2020.
119. Manjunath G.K., Bhat K.U., Preetham Kumar G.V., "Tensile toughness characteristics of cast Al-Zn-Mg alloys processed by equal channel angular pressing", Materials Science Forum, 10.4028/www.scientific.net/MSF.978.161, 978, 161-166, 2020.
120. Mahesh V., Joladarashi S., Kulkarni S.M., "Influence of thickness and projectile shape on penetration resistance of the compliant composite", Defence Technology, 10.1016/j.dt.2020.03.006, 2020.
121. Nair V.G., Guruprasad K.R., "Multi-robot coverage using Voronoi partitioning based on geodesic distance", Lecture Notes in Electrical Engineering, 10.1007/978-981-13-9419-5_5, 581, 59-66, 2020.
122. Nair V.G., Guruprasad K.R.,"Manhattan distance based Voronoi partitioning for efficient multi-robot coverage", Lecture Notes in Electrical Engineering, 10.1007/978-981-13-9419-5_7, 581, 81-90, 2020.
123. Nair V.G., Guruprasad K.R.,"GeoDesic-VPC: Spatial partitioning for multi-robot coverage problem", International Journal of Robotics and Automation, 10.2316/J.2020.206-0303, 35(3), 189-198, 2020.
124. Nayak N., Rane S., Anarghya A., Kushwaha R., "Wear study and EHD

lubrication analysis on connecting rod big end bearings of off-highway application engine", Lubrication Science, 10.1002/ls.1497, 2020.

125. Prasad C.D., Joladarashi S., Ramesh M.R., Srinath M.S., Channabasappa B.H., "Comparison of Microstructural and Sliding Wear Resistance of HVOF Coated and Microwave Treated CoMoCrSi-WC + CrC + Ni and CoMoCrSi-WC + 12Co Composite Coatings Deposited on Titanium Substrate", Silicon, 10.1007/s12633-020-00398-1, 2020.
126. Kadam A.R., Parida R.K., Hindasageri V., Kumar G.N., "Heat transfer distribution of premixed methane-air laminar flame jets impinging on ribbed surfaces ", Applied Thermal Engineering, 10.1016/j.applthermaleng.2019.114352, 163, 114352, 2019.
127. Puneet N.P., Hegale A., Kumar H., Gangadharan K.V., "Multi objective optimization of quarter car parameters for better ride comfort and road holding" AIP Conference Proceedings, 10.1063/1.5141216, 2200, 20046, 2019.
128. Tak R.S.S., Kumar H., Chandramohan S., Srinivasan S., "Design of twin-rod flow mode magneto rheological damper for prosthetic knee application", AIP Conference Proceedings, 10.1063/1.5141215, 2200, 20045, 2019.
129. Rao C.M., Rao S.S., Herbert M.A., "Studies on the Effect of Process Parameters in Turning of Ti-6Al-4V Alloy Using Topsis", IOP Conference Series: Materials Science and Engineering",10.1088/1757-899X/577/1/012069, 577(1), 12069, 2019.
130. Aruna M.N., Rahman M.R., Joladarashi S., Kumara H., "Investigating Sedimentation and Rheological properties of Magnetorheological Fluids using various carrier fluids", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/577/1/012049, 577(1), 12049, 2019.
131. Sachin B., Narendranath S., Chakradhar D., " Analysis of surface hardness and surface roughness in diamond burnishing of 17-4 PH stainless steel", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/577/1/012075, 577(1), 12075, 2019.
132. Naik G.M., Gote G.D., Narendranath S., Satheesh Kumar S.S., "Microstructure and Corrosion behavior of wrought AZ80 Mg alloys after the combined processes of ECAP and Hot Rolling", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/577/1/012110, 577(1), 12110, 2019.
133. Kanaginahal G.M., Hebbar H.S., Kulkarni S.M., "Influence of weave pattern and composite thickness on mechanical properties of bamboo/epoxy composites", Materials Research Express, 10.1088/2053-1591/ab5a90, 6(12), 125334, 2019.
134. Varghese V., Ramesh M.R., Chakradhar D., "Experimental investigation of cryogenic end milling on maraging steel using cryogenically treated tungsten carbide-cobalt inserts", International Journal of Advanced Manufacturing Technology, 10.1007/s00170-019-04387-6, 105, 2001-2019, 2019.
135. Sachinkumar, Narendranath S., Chakradhar D., "Microstructure, Hardness and Tensile Properties of Friction Stir Welded Aluminum Matrix Composite Reinforced with SiC and Fly Ash", Silicon, 10.1007/s12633-018-0044-5, 11(6), 2557-2565, 2019.
136. Ramesh S., Nayaka H.S., Sahu S., Gopi K.R., Shivaram M.J., Arya S., "Influence of Multiaxial Cryoforging on Microstructural, Mechanical, and Corrosion Properties of Copper-Titanium Alloy", Journal of Materials Engineering and Performance, 10.1007/s11665-019-04454-9, 28(12), 7629-7641, 2019.

137. Prasad C.D., Joladarashi S., Ramesh M.R., Srinath M.S., Channabasappa B.H., "Development and Sliding Wear Behavior of Co-Mo-Cr-Si Cladding through Microwave Heating", Silicon, 10.1007/s12633-019-0084-5, 11(6), 2975-2986, 2019.
138. Naik G.M., Narendranath S., Satheesh Kumar S.S., Sahu S. "Effect of Annealing and Aging Treatment on Pitting Corrosion Resistance of Fine-Grained Mg-8%Al-0.5%Zn Alloy", JOM, 10.1007/s11837-019-03769-1,71(12), 4758-4768, 2019.
139. Kumar B.Y.S., Isloor A.M., Kumar G.C.M., Inamuddin, Asiri A.M., Nanohydroxyapatite Reinforced Chitosan Composite Hydrogel with Tunable Mechanical and Biological Properties for Cartilage Regeneration, Scientific Reports, 10.1038/s41598-019-52042-7, 9(1), 15957, 2019.
140. Nagamadhu M., Jeyaraj P., Mohan Kumar G.C., "Characterization and mechanical properties of sisal fabric reinforced polyvinyl alcohol green composites: Effect of composition and loading direction", Materials Research Express, 10.1088/2053-1591/ab56b3, 6(12), 125320, 2019.
141. Santosh Kumar B.Y., Isloor A.M., Anil S., "Venkatesan J., Kumar G.C.M., "Calcium phosphate bioceramics with polyvinyl alcohol hydrogels for biomedical applications", Materials Research Express, 10.1088/2053-1591/ab549f, 6(12), 125404, 2019.
142. Priyanka B.A., Sarang G., Ravi Shankar A.U., "Evaluation of Superpave mixtures for perpetual asphalt pavements", Road Materials and Pavement Design, 10.1080/14680629.2018.1474794, 20(8), 1952-1965, 2019.
143. Kamath N., Anawal R., Doddamani M., "Tensile behavior of lightweight foam filament", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/561/1/012018, 561(1), 12018, 2019.
144. Malagi S., Anawal R., Gorabal S.V., Doddamani M., "Tensile characteristics of HDPE/Walnut shell composites", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/561/1/012089, 561(1), 12089, 2019.
145. Angadi S.B., Ashrith H.S., Gaitonde V.N., Karnik S.R., Doddamani M., "Experimental investigations on hole quality in drilling of cenosphere reinforced epoxy composite", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/561/1/012039, 561(1), 12039, 2019.
146. P.S V., M.K H.K., Gnanasekaran N., Arun M., "3D coupled conduction-convection problem using in-house heat transfer experiments in conjunction with hybrid inverse approach", Engineering Computations (Swansea, Wales), 10.1108/EC-11-2018-0496, 36(9), 3180-3207, 2019.
147. Devananda P. R., Narayanprabhu K., "The effect of load and addition of MWCNTs on silicone based TIMs on thermal contact heat transfer across Cu/Cu interface", Materials Research Express, 10.1088/2053-1591/ab5236, 6(11), 1165h9, 2019.
148. Kulkarni P.S., Sharanappa G., Ramesh M.R., Banapurmath N.R., Khandal S.V., "Experimental investigations of a low heat rejection (LHR) engine powered with Mahua oil methyl ester (MOME) with exhaust gas recirculation (EGR)", Biofuels, 10.1080/17597269.2017.1345356, 10(6), 747-756, 2019.
149. Municchi F., Nagrani P.P., Christov I.C., "A two-fluid model for numerical simulation of shear dominated suspension flows", International Journal of Multiphase Flow, 10.1016/j.ijmultiphaseflow.2019.07.015, 120, 103079, 2019.
150. PRABHU S.R., SHETTIGAR A.K., HERBERT M.A., RAO S.S., "Microstructure and mechanical properties of rutile-reinforced

AA6061 matrix composites produced via stir casting process", Transactions of Nonferrous Metals Society of China (English Edition), 10.1016/S1003-6326(19)65152-6, 9(11), 2229-2236, 2019.

151. Patil B., Bharath Kumar B.R., Bontha S., Balla V.K., Powar S., Hemanth Kumar V., Suresha S.N., Doddamani M., "Eco-friendly lightweight filament synthesis and mechanical characterization of additively manufactured closed cell foams", Composites Science and Technology, 10.1016/j.compscitech.2019.107816, 183, 107816, 2019.
152. Nayak B., Sahu R.K., "Experimental and Digimat-FE based representative volume element analysis of exceptional graphene flakes/aluminium alloy nanocomposite characteristics", Materials Research Express, 10.1088/2053-1591/ab4bb7, 6(11), 116593, 2019.
153. Naik R., Somasekhara Rao T., "Self-powered flexible piezoelectric nanogenerator made of poly (vinylidene fluoride)/Zirconium oxide nanocomposite", Materials Research Express, 10.1088/2053-1591/ab49b3, 6(11), 115330, 2019.
154. Waddar S., Pitchaimani J., Doddamani M., Barbero E., "Buckling and vibration behaviour of syntactic foam core sandwich beam with natural fiber composite facings under axial compressive loads", Composites Part B: Engineering, 10.1016/j.compositesb.2019.107133, 175, 107133, 2019.
155. Acharya S., Saini T.R.S., Kumar H., "Optimal design and analyses of t-shaped rotor magnetorheological brake", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/624/1/012024, 624(1), 12024, 2019.
156. Bharadwaj P.B., Pitchaimani J., "Newtonian approach towards mathematical modeling and tuning of a continuously variable transmission", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/624/1/012020, 624(1), 12020, 2019.
157. Nirmalkumar R., Sohgaura R., Kadoli R., Joladarashi S., "Powder metallurgy process towards functional gradation of Al-Al2O3 metal ceramic mixture samples", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/624/1/012013, 624(1), 12013, 2019.
158. Rao G., Kumar G.N., Herbert M., "Effect of injection pressure on the performance and emission characteristics of the CI engine using Vateria indica biodiesel", International Journal of Ambient Energy, 10.1080/01430750.2017.1421575, 40(7), 758-767, 2019.
159. Rao K.M.C., Malghan R.L., Herbert M.A., Rao S.S., "Dataset on flank wear, cutting force and cutting temperature assessment of austenitic stainless steel AISI316 under dry, wet and cryogenic during face milling operation", Data in Brief 10.1016/j.dib.2019.104389, 26, 104389, 2019.
160. Acharya S., Saini T.R.S., Kumar H., "Determination of optimal magnetorheological fluid particle loading and size for shear mode monotube damper", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-019-1895-4, 41(10), 392, 2019.
161. Mahesh V., Joladarashi S., Kulkarni S.M., "An experimental investigation on low-velocity impact response of novel jute/rubber flexible bio-composite", Composite Structures,10.1016/j.compstruct.2019.111190, 225, 111190, 2019.
162. Sachin B., Narendranath S., Chakradhar D., "Enhancement of surface integrity by cryogenic diamond burnishing toward the improved functional performance of the components", Journal of the Brazilian Society of Mechanical Sciences and Engineering",

10.1007/s40430-019-1918-1, 41(10), 396, 2019.

163. Raghavendra Kamath C., Kuttan A., "Mechanistic modeling of runout, ovality and misalignment in reaming process", International Journal of Mechanical and Production Engineering Research and Development,10.24247/ijmperdoct201982, 9(5), 931-938, 2019.
164. Doddamani M., "Wear behavior of glass microballoon based closed cell foam", Materials Research Express, 10.1088/2053-1591/ab446a, 6(11), 115314, 2019.
165. Prasad C.D., Joladarashi S., Ramesh M.R., Srinath M.S., Channabasappa B.H., "Effect of microwave heating on microstructure and elevated temperature adhesive wear behavior of HVOF deposited CoMoCrSi-Cr3C2coating", Surface and CoatingsTechnology,10.1016/j.surfcoat.2019.05.056, 374, 291-304, 2019.
166. Felix J., Rajendran R., Kumar G.N., Babu Y.G., Karthik M.K., Ramesha D.K., "Experimental and Numerical Investigation of Effusion Cooling Performance Over Combustor Liner Flat Plate Model", Heat Transfer Engineering, 10.1080/01457632.2018.1460935, 40(15),1286-1298, 2019.
167. Ramesh S., Aditya Kudva S., Anne G., Manne B., Arya S., "Optimization of ball-burnishing process parameters on surface roughness, micro hardness of Mg-Zn-Ca alloy and investigation of corrosion behavior", Materials Research Express, 10.1088/2053-1591/ab40f2, 6(10), 106500, 2019.
168. Mukunda S., Vinyas M., Narendranath S., Herbert M.A., "Effect of low temperature annealing on the properties of nano Ni-Ti alloys", Materials Research Express, 10.1088/2053-1591/ab3e95, 6(10), 105711, 2019.
169. Veeresh Nayak C., Ramesh M.R., Desai V., Samanta S.K., "Sintering metal injection molding parts of tungsten-based steel using microwave and conventional heating methods", Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture", 10.1177/0954405418816853, 233(11), 2138-2146, 2019.
170. Ramesh S., Anne G., Nayaka H.S., Sahu S., Ramesh M.R., "Investigation of dry sliding wear properties of multi-directional forged Mg–Zn alloys", Journal of Magnesium and Alloys, 10.1016/j.jma.2019.05.008, 7(3), 444-455, 2019.
171. Badiger P.V., Desai V., Ramesh M.R., Prajwala B.K., Raveendra K., "Cutting Forces, Surface Roughness and Tool Wear Quality Assessment Using ANN and PSO Approach During Machining of MDN431 with TiN/AlN-Coated Cutting Tool", Arabian Journal for Science and Engineering, 10.1007/s13369-019-03783-0, 44(9), 7465-7477, 2019.
172. Kanchan M., Maniyeri R., "Numerical simulation of buckling and asymmetric behavior of flexible filament using temporal second-order immersed boundary method", International Journal of Numerical Methods for Heat and Fluid Flow, 10.1108/HFF-06-2019-0467, 30(3), 1047-1095, 2019.
173. Shivashankar H., Sangamesh R., Kulkarni S.M., "Processing and investigation of mechanical characteristics on the polydimethylsiloxane/carbon black composites", Materials Research Express, 10.1088/2053-1591/ab3b7e, 6(10), 105340, 2019.
174. Balichakra M., Bontha S., Krishna P., Balla V.K., "Prediction and validation of residual stresses generated during laser metal deposition of γ titanium aluminide thin wall structures", Materials Research Express, 10.1088/2053-1591/ab38ee, 6(10), 106550, 2019.
175. Mohan A., Dutta S., Madav V., "Characterization and upgradation of crude tire pyrolysis oil (CTPO) obtained from a rotating autoclave reactor",Fuel,10.1016/j.fuel.2019.03.139, 250, 339-351, 2019.

176. Bhowmick P., Jeevanantham A.K., Ashok B., Nanthagopal K., Perumal D.A., Karthickeyan V., Vora K.C., Jain A., "Effect of fuel injection strategies and EGR on biodiesel blend in a CRDI engine", Energy, 10.1016/j.energy.2019.06.014., 181, 1094-1113, 2019.
177. Gajanan M.N., Narendranath S., Satheesh Kumar S.S., "Effect of grain refinement on mechanical and corrosion behavior of AZ91 magnesium alloy processed by ECAE", IOP Conference Series: Materials Science and Engineering, 10.1088/1757899X/591/1/012015 , 591(1), 12015, 2019.
178. Dey K., Sannayellappa N., "Computer aided cooling curve analysis to calculate the thermophysical properties of zinc aluminium 12", AIP Conference Proceedings, 10.1063/1.5120203, 2134, 030005-1, 2019.
179. Chandurkar S., Kadoli R, "Finite element and differential quadrature solution for natural frequency of a clamped-free pipe conveying fluid", AIP Conference Proceedings, 10.1063/1.5120214, 2134, 040006-7, 2019.
180. Rajappa N., Kadoli R., Joladarashi S., "Transverse deflection and vibration of curved sandwich beam", AIP Conference Proceedings, 10.1063/1.5120245, 2134, 080005-1, 2019.
181. Marpally S.R., Nagarakshith M.S., Sadananda A., Guruprasad K.R., "Geometrical Mapping of an Initially Unknown Region by a Mobile Robot", IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 - Proceedings",10.1109/DISCOVER47552.2019.9008095, 9008095, 2019.
182. Buradi A., Morab S., Mahalingam A, "EFFECT of STENOSIS SEVERITY on SHEAR-INDUCED DIFFUSION of RED BLOOD CELLS in CORONARY ARTERIES", Journal of Mechanics in Medicine and Biology, 10.1142/S0219519419500349, 19(5), 1950034, 2019.
183. Desai R.M., Jamadar M.E.H., Kumar H., Joladarashi S., Raja Sekaran S.C., "Design and experimental characterization of a twin-tube MR damper for a passenger van", ournal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-019-1833-5, 41(8), 332, 2019.
184. Angadi S.B., Gaitonde V.N., Doddamani M., Karnik S.R., "Assessment of circularity error in drilling of cenosphere reinforced epoxy composites", AIP Conference Proceedings, 10.1063/1.5117966, 2128, 40004, 2019.
185. Praveen T.R., Nayaka H.S., Swaroop S., "Influence of equal channel angular pressing and laser shock peening on fatigue behaviour of AM80 alloy", Surface and Coatings Technology, 10.1016/j.surfcoat.2019.03.072, 369, 221-227, 2019.
186. Lamani V.T., Baliga M A.U., Yadav A.K., Kumar G.N., "Effect of bioethanol–diesel blends, exhaust gas recirculation rate and injection timing on performance, emission and combustion characteristics of a common rail diesel engine", Biofuels, 10.1080/17597269.2017.1329493, 10(4), 511-523, 2019.
187. Mahesh V., Kattimani S., "Finite element simulation of controlled frequency response of skew multiphase magneto-electro-elastic plates", Journal of Intelligent Material Systems and Structures, 10.1177/1045389X19843674, 30(12), 1757-1771, 2019.
188. Tran T.Q., Chinnappan A., Lee J.K.Y., Loc N.H., Tran L.T., Wang G., Kumar V.V., Jayathilaka W.A.D.M., Ji D., Doddamani M., Ramakrishna S., "3D printing of highly pure copper", Metals, 10.3390/met9070756, 9(7), 756, 2019.
189. K.R. R., Bontha S., M.R. R., Das M., Balla V.K, "Laser surface melting of Mg-Zn-Dy alloy for better wettability and corrosion resistance for biodegradable implant

applications", Applied Surface Science,10.1016/j.apsusc.2019.02.167, 480, 70-82, 2019.

190. Prabhu S.R.B., Shettigar A.K., Herbert M.A., Rao S.S., "Microstructure evolution and mechanical properties of friction stir welded AA6061/rutile composite", Materials Research Express, 10.1088/2053-1591/ab0f4e, 6(8), 0865I7, 2019.
191. Praveen Shenoy K., Gangadharan K.V., "A novel method for dynamic characterization of angular displacement-dependent viscoelastic properties of magnetorheological elastomer under torsional loading conditions", Smart Materials and Structures, 10.1088/1361-665X/ab1f34, 28(7), 75034, 2019.
192. Karki P., Yadav A.K., Perumal D.A., "Study of adiabatic obstacles on natural convection in a square cavity using lattice boltzmann method", Journal of Thermal Science and Engineering Applications, 10.1115/1.4041875, 11(3), 34502, 2019.
193. Vivek K.V., Sheta M.A., Gumtapure V., "A comparative study of stanley, lqr and mpc controllers for path tracking application (adas/ad)", Proceedings - 2019 IEEE International Conference on Intelligent Systems and Green Technology, ICISGT 2019,10.1109/ICISGT44072.2019.00030, 8998094, 67-71, 2019.
194. Kanchan M., Maniyeri R., "Numerical analysis of the buckling and recuperation dynamics of flexible filament using an immersed boundary framework",International Journal of Heat and Fluid Flow ", 10.1016/j.ijheatfluidflow.2019.04.011, 77, 256-277, 2019.
195. Santra P., Mukhopadhyay A., Debnath B., Herbert M.A., Bhaumik S., "Active Upper Arm Exoskeleton - Design and Kinematic Analysis", Proceedings of 2019 IEEE Region 10 Symposium, TENSYMP 2019, 10.1109/TENSYMP46218.2019.8971152, 8971152, 462-467, 2019.
196. Shahapurkar K., Doddamani M., Mohan Kumar G.C., Gupta N., "Effect of cenosphere filler surface treatment on the erosion behavior of epoxy matrix syntactic foams", PolymerComposites,10.1002/pc.24994, 40(6), 2109-2118, 2019.
197. Reddy N.C., Koppad P.G., Reddappa H.N., Ramesh M.R., Babu E.R., Varol T., "Hot corrosion behaviour of HVOF sprayed Ni3Ti and Ni3Ti + (Cr3C2 + 20NiCr) coatings in presence of Na2SO4-40%V2O5 at 650 °c", Surface Topography: Metrology and Properties, 10.1088/2051-672X/ab23d2, 7(2), 25019, 2019.
198. Aruna M.N., Rahman M.R., Joladarashi S., Kumar H., "Influence of additives on the synthesis of carbonyl iron suspension on rheological and sedimentation properties of magnetorheological (MR) fluids", Materials Research Express, 10.1088/2053-1591/ab1e03, 6(8), 86105, 2019.
199. Doddamani M., "Effect of surface treatment on quasi-static compression and dynamic mechanical analysis of syntactic foams", Composites Part B: Engineering, 10.1016/j.compositesb.2019.01.076, 165, 365-378, 2019.
200. Naik G.M., Narendranath S., Kumar S.S.S., "Effect of ECAP Die Angles on Microstructure Mechanical Properties and Corrosion Behavior of AZ80 Mg Alloy", Journal of Materials Engineering and Performance, 10.1007/s11665-019-04080-5, 28(5), 2610-2619, 2019.
201. Suvarna S., Sengupta D., Koratikere P., Pant R.S., "Simulation of Autonomous Airship on ROS-Gazebo Framework", 2019 5th Indian Control Conference, ICC 2019 - Proceedings, 10.1109/INDIANCC.2019.8715570, 8715570, 237-241, 2019.
202. Bala Narasimha G., Murigendrappa S.M., "Effect of zirconium on the properties of polycrystalline Cu-Al-Be shape memory alloy", Materials Science and Engineering A,

10.1016/j.msea.2019.04.022, 755, 211-219, 2019.

203. Dhinakaran V., Patil R., Sriram G., Shanmugam N.S., "Studies on crack propogation in plasma arc welded Ti-6Al-4V joint during erichsen cupping test", International Journal of Recent Technology and Engineering, 8(1), 79-83, 2019.
204. Manakari V., Parande G., Doddamani M., Gupta M., "Evaluation of wear resistance of magnesium/glass microballoon syntactic foams for engineering/biomedical applications",CeramicsInternational, 10.1016/j.ceramint.2019.01.207, 45(7), 9302-9305, 2019.
205. Sachin B., Narendranath S., Chakradhar D., "Selection of optimal process parameters in sustainable diamond burnishing of 17-4 PH stainless steel", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 10.1007/s40430-019-1726-7, 41(5), 219, 2019.
206. Anil Kumar K.S., Murigendrappa S.M., Kumar H., "Experimental investigation on effects of varying volume fractions of SiC nanoparticle reinforcement on microstructure and mechanical properties in friction-stir-welded dissimilar joints of AA2024-T351 and AA7075-T651", Journal of Materials Research, 10.1557/jmr.2018.445, 34(7), 1229-1247, 2019.
207. Soni H., Narendranath S., Ramesh M.R., "Effects of Wire Electro-Discharge Machining Process Parameters on the Machined Surface of Ti 50 Ni 49 Co 1 Shape Memory Alloy", Silicon, 10.1007/s12633-017-9687-x, 11(2), 733-739, 2019.
208. Singh A.K., Deptula A.J., Anawal R., Doddamani M., Gupta N., "Additive Manufacturing of Three-Phase Syntactic Foams Containing Glass Microballoons and Air Pores", JOM, 10.1007/s11837-019-03355-5, 71(4), 1520-1527, 2019.
209. Ayodhya A.S., Lamani V.T., Thirumoorthy M., Kumar G.N., "NOx reduction studies on a diesel engine operating on waste plastic oil blend using selective catalytic reduction technique", Journal of the Energy Institute, 10.1016/j.joei.2018.01.002, 92(2), 341-350, 2019.
210. Chavan S., Gumtapure V., Arumuga Perumal D., "Computational investigation of bounded domain with different orientations using CPCM", Journal of Energy Storage, 10.1016/j.est.2019.02.018, 22, 355-372, 2019.
211. Kotresha B., Gnanasekaran N., "Determination of interfacial heat transfer coefficient for the flow assisted mixed convection through brass wire mesh", International Journal of Thermal Sciences, 10.1016/j.ijthermalsci.2018.12.043, 138, 98-108, 2019.
212. Vishweshwara P.S., Gnanasekaran N., Arun M, "Simultaneous estimation of unknown parameters using a-priori knowledge for the estimation of interfacial heat transfer coefficient during solidification of Sn–5wt%Pb alloy—an ANN-driven Bayesian approach", Sadhana - Academy Proceedings in Engineering Sciences, 10.1007/s12046-019-1076-2, 44 (4), 100, 2019.
213. Anarghya A., Rao S.S., Herbert M.A., Navin Karanth P., Rao N., "Investigation of errors in microcontroller interface circuit for mutual inductance sensor", Engineering Science and Technology, an International Journal, 10.1016/j.jestch.2018.11.011, 22(2), 578-591, 2019.
214. Nair S.K.A., Joladarashi S., Ganesh N., "Evaluation of ultrasonic sensor in robot mapping", Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, 10.1109/ICOEI.2019.8862659, 8862659, 638-641, 2019.
215. Kadlimatti H.M., Raj Mohan B., Saidutta M.B., "Bio-oil from microwave assisted pyrolysis of food waste-optimization using response

surface methodology", Biomass and Bioenergy, 10.1016/j.biombioe.2019.01.014, 123, 25-33, 2019.

216. Ramesh S., Anne G., Nayaka H.S., Sahu S., Ramesh M.R., "Influence of Multidirectional Forging on Microstructural, Mechanical, and Corrosion Behavior of Mg-Zn Alloy", Journal of Materials Engineering and Performance, 10.1007/s11665-019-04007-0, 28(4), 2053-2062, 2019.
217. Bekinal S.I., Doddamani M., Vanarotti M., Jana S., "Generalized optimization procedure for rotational magnetized direction permanent magnet thrust bearing configuration", Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 10.1177/0954406218786976, 233(7), 2563-2573, 2019.
218. Chavan S., Gumtapure V., Arumuga Perumal D., "Characterization of linear low-density polyethylene with graphene as thermal energy storage material", Materials Research Express, 10.1088/2053-1591/ab0e36, 6(6), 65511, 2019.
219. Radhika K.A., Raksha B.L., Sujatha B.R., Pruthviraj U., Gangadharan K.V., "IoT Based Joystick Controlled Pibot Using Socket Communication", 2018 IEEE Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2018 - Proceedings, 10.1109/DISCOVER.2018.8674130, 8674130, 121-125, 2019.
220. Gajanan M.N., Narendranath S., Kumar S.S.S., "Influence of ECAP processing routes on microstructure mechanical properties and corrosion behavior of AZ80Mg alloy", AIP Conference Proceedings, 10.1063/1.5093834, 2082, 30016, 2019.
221. Susheelkumar G.N., Murigendrappa S.M., Gangadharan K.V., "Theoretical and experimental investigation of model-free adaptive fuzzy sliding mode control for MRE based adaptive tuned vibration absorber", Smart Materials and Structures, 10.1088/1361-665X/ab04b6, 28(4), 45017, 2019.
222. Prashantha B., Anish S., "Computational investigations on the hemodynamic performance of a new swirl generator in bifurcated arteries", Computer Methods in Biomechanics and Biomedical Engineering, 10.1080/10255842.2018.1556974, 22(4), 364-375, 2019.
223. Sushmita, Hiremath S., Kulkarni S.M., "Modelling and analysis of polymer diaphragms for micro sensing and actuation", AIP Conference Proceedings, 10.1063/1.5092887, 2080, 20004, 2019.
224. Badiger R.I., Narendranath S., Srinath M.S., Hebbale A.M., "Effect of Power Input on Metallurgical and Mechanical Characteristics of Inconel-625 Welded Joints Processed Through Microwave Hybrid Heating", Transactions of the Indian Institute of Metals, 10.1007/s12666-018-1537-z, 72(4), 811-824, 2019.
225. D'Souza J.M., Guruprasad K.R., Padman A., "A realistic simulation platform for multi-quadcopter search using downward facing cameras", Computers and Electrical Engineering, 10.1016/j.compeleceng.2019.01.011, 74, 184-195, 2019.
226. Narendran G., Gnanasekaran N., Arumuga Perumal D., "Migration of flow inducted hotspot with heat spreader integrated microchannel subjected to asymmetric heat flux: A Multiphysics approach", 2019 20th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE 2019, 10.1109/EuroSimE.2019.8724568, 8724568, 2019.
227. Shaik S.V., Setty A.B.T.P., "Thermodynamic analysis of window air conditioner using sustainable refrigerant R290/RE170 and R1270/RE170 blends as substitutes to refrigerant R22", International

Journal of Heat and Technology, 10.18280/ijht.370110, 37(1), 80-94, 2019.

228. Ashrith H.S., Doddamani M., Gaitonde V., "Effect of wall thickness and cutting parameters on drilling of glass microballoon/epoxy syntactic foam composites", Composite Structures, 10.1016/j.compstruct.2018.12.022, 211, 318-336, 2019.
229. Badiger R.I., Narendranath S., Srinath M.S., "Optimization of Process Parameters by Taguchi Grey Relational Analysis in Joining Inconel-625 Through Microwave Hybrid Heating", Metallography, Microstructure, and Analysis, 10.1007/s13632-018-0508-4, 8(1), 92-108, 2019.
230. Xu X., Koomson C., Doddamani M., Behera R.K., Gupta N., "Extracting elastic modulus at different strain rates and temperatures from dynamic mechanical analysis data: A study on nanocomposites", Composites Part B: Engineering, 10.1016/j.compositesb.2018.10.015 , 159, 346-354, 2019.
231. Kotresha B., Gnanasekaran N., "A Synergistic Combination of Thermal Models for Optimal Temperature Distribution of Discrete Sources Through Metal Foams in a Vertical Channel", Journal of Heat Transfer, 10.1115/1.4041955, 141(2), 22004, 2019.
232. Badiger P.V., Desai V., Ramesh M.R., Joladarashi S., Gourkar H., "Tribological behaviour of monolayer and multilayer Ti-based thin solid films deposited on alloy steel", Materials Research Express, 10.1088/2053-1591/aaef6d, 6(2), 26419, 2019.
233. B S., S N., Chakradhar D., "Effect of working parameters on the surface integrity in cryogenic diamond burnishing of 17-4 PH stainless steel with a novel diamond burnishing tool", Journal of Manufacturing Processes, 10.1016/j.jmapro.2019.01.051, 38, 564-571, 2019.
234. Chinnathaypgal V.N., Rangarasaiah R.M., Desai V., Samanta S.K., "Evaluation of Wear Behaviour of Metal Injection Moulded Nickel Based Metal Matrix Composite", Silicon, 10.1007/s12633-018-9843-y, 11(1), 175-185, 2019.
235. Ramesh S., Nayaka H.S., Gopi K.R., Sahu S., "Effect of multiaxial cryoforging on microstructure and mechanical properties of a Cu-Ti Alloy", Materials Research Express, 10.1088/2053-1591/aaf085, 6(2), 26556, 2019.
236. Prasad C.D., Joladarashi S., Ramesh M.R., Srinath M.S., Channabasappa B.H., "Microstructure and tribological behavior of flame sprayed and microwave fused CoMoCrSi/CoMoCrSi-Cr3C2 coatings", Materials Research Express, 10.1088/2053-1591/aaebd9, 6(2), 26512, 2019.
237. Karthik Rao M.C., Malghan R.L., ArunKumar S., Rao S.S., Herbert M.A., "An Efficient Approach to Optimize Wear Behavior of Cryogenic Milling Process of SS316 Using Regression Analysis and Particle Swarm Techniques", Transactions of the Indian Institute of Metals, 10.1007/s12666-018-1473-y, 72(1), 191-204, 2019.
238. Ashok B., Nanthagopal K., Arumuga Perumal D., Babu J.M., Tiwari A., Sharma A., "An investigation on CRDi engine characteristic using renewable orange-peel oil", Energy Conversion and Management, 10.1016/j.enconman.2018.11.047, 180, 1026-1038, 2019.
239. Susheelkumar G.N., Murigendrappa S.M., Gangadharan K.V., "Preparation and dynamic characterization of polymer based magnetorheological elastomer for vibration isolator", AIP Conference Proceedings, 10.1063/1.5085631, 2057, 20058, 2019.
240. Singh R.K., Murigendrappa S.M., Kattimani S., "Experimental investigation on free vibration of composite beams implanted Ni-Ti

shape memory alloy wires", AIP Conference Proceedings, 10.1063/1.5085583, 2057, 20012, 2019.
241. Suman M.L.J., Murigendrappa S.M., Kattimani S., "Experimental investigation on modal characteristics of plain woven glass/carbon hybrid composite beams with fixed-free end condition", AIP Conference Proceedings, 10.1063/1.5085582, 2057, 20011, 2019.
242. Gonsalves T.H., Kumar G.C.M., Ramesh M.R., "Leveraging the effectiveness of hybrid metal-fiber composites in high speed rotating machines", AIP Conference Proceedings, 10.1063/1.5085580, 2057, 20009, 2019.
243. Patil P.R., Ahire A.S., Suman M.L.J., Murigendrappa S.M., "Development of an in-house MATLAB code for finite element analysis of composite beam under static load",AIP Conference Proceedings ,10.1063/1.5085586 , 2057,20015 ,2019.
244. Kumar G.C.M., Jeyaraj P., Nagamadhu M., "Dynamic mechanical analysis of glutaraldehyde cross linked polyvinyl alcohol under tensile mode", AIP Conference Proceedings, 10.1063/1.5085588, 2057, 20017, 2019.
245. Patil M.A., Kadoli R., Kumar B.S., "Numerical approach for laminated composite beam using differential quadrature method", AIP Conference Proceedings, 10.1063/1.5085629, 2057, 20056, 2019.
246. Shankar B.S.M., Kulkarni S.M., "Investigation of piezo-capacitance and piezo-resistance properties of solid silicone rubber-conductive carbon black composites", AIP Conference Proceedings, 10.1063/1.5085605, 2057, 20034, 2019.
247. Mahesh V., Joladarashi S., Kulkarni S.M., "Comparative study on energy absorbing behavior of stiff and flexible composites under low velocity impact", AIP Conference Proceedings,10.1063/1.5085596 , 2057, 20025, 2019.
248. Chavan S., Gumtapure V., Perumal D.A., "Preparation and characterization of nanoparticle blended polymers for thermal energy storage applications", AIP Conference Proceedings, 10.1063/1.5085599, 2057, 20028, 2019.
249. Biradar S., Joladarashi S., Rajole S., Hiremath S., Kulkarni S.M., "Comparative study on filament wounded and laminated GFRP composites for tensile characterization", AIP Conference Proceedings, 10.1063/1.5085628, 2057, 20055, 2019.
250. Kumar B.Y.S., Isloor A.M., Kumar G.C.M., "Viscoelastic behavior of HAp reinforced polyvinyl alcohol composite hydrogel for tissue engineered articular cartilages", AIP Conference Proceedings, 10.1063/1.5085633, 2057, 20062, 2019.
251. Sachin S., Nayaka H.S., Santhosh B., Krishna P., "Experimental study of Mode i and Mode II interlaminar fracture toughness on aerospace structural composite T300/914", AIP Conference Proceedings, 10.1063/1.5085578, 2057, 20007, 2019.
252. Bharath J., Joladarashi S., Nagiredla S., Kumar H., "Investigation of static and dynamic properties of cenosphere reinforced polymer matrix composite beams", AIP Conference Proceedings, 10.1063/1.5085622, 2057, 20050, 2019.
253. Periasamy K., Kumar G.C.M., "TGA/DSC studies of marine coral reinforced polymer composites", AIP Conference Proceedings, 10.1063/1.5085604, 2057, 20033, 2019.
254. Aveen K.P., Bhajantri V., D'Souza R., Londe N.V., Jambagi S., "Experimental analysis on effect of various fillers on mechanical properties of glass fiber reinforced polymer composites", AIP Conference Proceedings,

10.1063/1.5085615, 2057, 20044, 2019.

255. Prashanth B.H.M., Manjunath T.S., Gouda P.S.S., Sajjan S.S., Ramesh S., "Physico-mechanical response of phenolic resin composites reinforced with jute and banana fibers", AIP Conference Proceedings, 10.1063/1.5085587, 2057, 20016, 2019.
256. Kotresha B., Gnanasekaran N., "Effect of thickness and thermal conductivity of metal foams filled in a vertical channel – a numerical study",International Journal of Numerical Methods for Heat and Fluid Flow , 10.1108/HFF-11-2017-0465, 29(1), 184-203, 2019.
257. Kumar A., Narendran G., Perumal D.A., "Numerical study of TiO2 nanofluid in multistage-bifurcated microchannel subjected to hotspots", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-6416-7_74, 793-801, 2019.
258. Gonsalves T.H., Mohan Kumar G.C., Ramesh M.R., "Dynamic study of composite material shaft in high-speed rotor-bearing systems",International Journal of Vehicle Noise and Vibration , 10.1504/IJVNV.2019.106371, 15(3-Feb), 89-109, 2019.
259. Ramesh S., Shivananda Nayaka H., "Effect of multiaxial cryoforging on wear properties of cu-1.5%ti alloy", Materials Science Forum, 10.4028/www.scientific.net/MSF.969.392, 969 MSF, 392-397, 2019.
260. Sangamesh R., Shivashankar H., Ravishankar K.S., Kulkarni S.M., "Ballistic performance study of kevlar29 fibre reinforced polyester composite", Solid State Phenomena, 10.4028/www.scientific.net/SSP.287.49, 287, 49-53, 2019.
261. Mahesh V., Joladarashi S., Kulkarni S.M., "An experimental study on adhesion, flexibility, interlaminar shear strength, and damage mechanism of jute/rubber-based flexible "green" composite", Journal of Thermoplastic Composite Materials,10.1177/0892705719882074, 2019.
262. Narendran G., Gnanasekaran N., Arumuga Perumal D., "Experimental Investigation on Heat Spreader Integrated Microchannel Using Graphene Oxide Nanofluid", Heat Transfer Engineering, 10.1080/01457632.2019.1637136, 2019 .
263. Rajole S., Ravishankar K.S., Kulkarni S.M., "Performance study of jute-epoxy composites/sandwiches under normal ballistic impact", Defence Technology,10.1016/j.dt.2019.11.011, 2019.
264. Shivashankar H., Sangamesh R., Kulkarni S.M., "Optimization of Bilayer Actuator Based on Carbon Black/Polymer Composites", IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/522/1/012007, 522(1), 12007, 2019.
265. Bhatt T., Arumuga Perumal D., "Application of Lattice Boltzmann Method for fluid flow modelling of FSLDR domain", Materials Today: Proceedings,10.1016/j.matpr.2020.03.221, 22, 2066-2073, 2019.
266. Rajan I., Perumal D.A., Yadav A.K., "Fluid flow characteristics in double-sided lid-driven microcavity using lattice boltzmann method",Computational Thermal Sciences ,10.1615/ComputThermalScien.2019028960, 11(6), 565-577, 2019.
267. Medabalimi S.R., Ramesh M.R., Kadoli R., "High-temperature wear and frictional behavior of partially oxidized Al with NiCr composite coating", Materials Research Express, 10.1088/2053-1591/ab5c34, 6(12), 126599, 2019.
268. Naik R., Rao S.T., "Preparation and characterization of flexible PVDF based polymer film for energy harvesting applications", Materials Today: Proceedings, 10.1016/j.matpr.2019.07.507, 18, 5107-5113, 2019.
269. Kotresha B., Gnanasekaran N., "Comparison of fluid flow and heat transfer through metal foams and wire mesh by using CFD", Recent Patents on Mechanical Engineering,

10.2174/2212797612666190717163207, 12(3), 220-226, 2019.
270. Shaik S.V., Babu T.P.S.A, "Computation of ecological properties, flammability properties and thermodynamic properties of sustainable refrigerant dimethylether (RE170) using Martin Hou equation of state (MHEOS)", International Journal of Heat and Technology, 10.18280/ijht.370325, 37(3), 869-880, 2019.
271. Biradar S., Sharnappa J., Kulkarni S.M., "FE analysis of FRP pressure vessel", Key Engineering Materials, 10.4028/www.scientific.net/KEM.801.77, 801 KEM, 77-82, 2019.
272. Mahesh V., Joladarashi S., Kulkarni S.M., "Development and mechanical characterization of novel polymer-based flexible composite and optimization of stacking sequences using VIKOR and PSI techniques", Journal of Thermoplastic Composite Materials, 10.1177/0892705719864619,201
273. Mahesh V., Joladarashi S., Kulkarni S.M., "Study on stacking sequence of plies in green sandwiches for low velocity impact application", Key Engineering Materials, 10.4028/www.scientific.net/KEM.801.59, 801 KEM, 59-64, 2019.
274. Mahesh V., Joladarashi S., Kulkarni S.M., "Experimental study on Abrasive wear behaviour of flexible green composite intended to be used as Protective Cladding for Structures", International Journal of Modern Manufacturing Technologies, 11(1), 69-76, 2019.
275. Allien V.J., Kumar H., Desai V., "Dynamic analysis and optimization of SiC reinforced Al6082 and Al7075 MMCs", Materials Research Express, 10.1088/2053-1591/ab038e, 6(5), 56528, 2019.
276. Mahesh V., Joladarashi S., Kulkarni S.M., "Physio-mechanical and wear properties of novel jute reinforced natural rubber based flexible composite", Materials Research Express, 10.1088/2053-1591/ab0164, 6(5), 55503, 2019.
277. Vishwas M., Joladarashi Sh., Kulkarni S.M., "Investigation on the eect of using rubber as core material in sandwich composite plate subjected to low-velocity normal and oblique impact loadings", Scientia Iranica,10.24200/sci.2018.5538.1331, 26(2), 897-907, 2019.
278. Kanchan M., Maniyeri R., "Computational study of fluid flow in wavy channels using immersed boundary method", Advances in Intelligent Systems and Computing,10.1007/978-981-13-1592-3_22 , 816, 283-293, 2019.
279. Vishweshwara P.S., Gnanasekaran N., Arun M, "Estimation of interfacial heat transfer coefficient for horizontal directional solidification of Sn-5wt%pb alloy using genetic algorithm as inverse method", Advances in Intelligent Systems and Computing, 10.1007/978-981-13-1592-3_35, 816, 447-459, 2019.
280. Sathyabhama A., "Boiling of saturated water on grooved surface", Thermal Science, 10.2298/TSCI180105203S, 23, 2019.
281. Doddamani M., "Influence of microballoon wall thickness on dynamic mechanical analysis of closed cell foams", Materials Research Express, 10.1088/2053-1591/ab62f4, 6(12), 125348, 2019.
282. Prashantha B., Anish S., "A computational study on the stenosis circularity for a severe stenosed idealized artery", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-1903-7_36, 313-320, 2019.
283. Aggarwal M., Dutt J.K., Chandraker S., "Dynamic characteristics of a flexible coupling", ASME 2019 Gas Turbine India Conference, GTINDIA 2019, 10.1115/GTINDIA2019-2604, 1, 2019.
284. Sachin B., Narendranath S., Chakradhar D., "Sustainable diamond burnishing of 17-4 PH stainless steel for enhanced surface integrity and product performance by using a novel modified tool",

Materials Research Express, 10.1088/2053-1591/aaf900, 6(4), 46501, 2019.

285. Gopi K.R., Shivananda Nayaka H., "Electrochemical Behaviour of ECAP-Processed AM Series Magnesium Alloy", Minerals, Metals and Materials Series, 10.1007/978-3-030-05789-3_51, 345-352 , 2019.
286. Varghese V., Ramesh M.R., Chakradhar D., "Influence of deep cryogenic treatment on performance of cemented carbide (WC-Co) inserts during dry end milling of maraging steel", Journal of Manufacturing Processes,10.1016/j.jmapro.2018.11.030, 37, 242-250, 2019.
287. Kotresha B., Gnanasekaran N., Balaji C., "Numerical Simulations of Flow-Assisted Mixed Convection in a Vertical Channel Filled with High Porosity Metal Foams", Heat Transfer Engineering, 10.1080/01457632.2018.1564208, 2019.
288. Tak R.S.S., Kumar H., Chandramohan S., Srinivasan S., "Design of bypass rotary vane magneto rheological damper for prosthetic knee application", Proceedings of 30th International Conference on Adaptive Structures and Technologies, ICAST 2019, 105-106, 2019.
289. Kadam A.R., Hindasageri V., Kumar G.N., "Estimation of heat transfer coefficient and reference temperature in jet impingement using solution to inverse heat conduction problem", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-1903-7_5, 31-37, 2019.
290. Kattimani S., Joladarashi S., Mahesh V., "Geometrically nonlinear vibration attenuation of functionally graded magnetoelectro-elastic shells", ASME 2019 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, SMASIS 2019, 10.1115/SMASIS2019-5533, 2019.
291. Ademane V.G., Hindasageri V., Kadoli R., "A numerical study on heat transfer characteristics of two-dimensional film cooling", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-1903-7_70, 613-619, 2019.
292. Naik G.M., Sannayellappa N., Kumar S.S.S., "Corrosion of ECAPed magnesium alloys and its background: A Review", Journal of Metals, Materials and Minerals, 10.14456/jmmm.2019.13, 29(2), 1-20, 2019.
293. Singh P., Ramesh S., Anne G., Shivananda Nayaka H., "Effect of Rolling Reduction on Microstructure and Mechanical Properties Cu-3%Ti Alloy", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-6374-0_20, 167-175, 2019.
294. Sajjan S.S., Kulkarni M.V., Ramesh S., Sharath P.C., Sangamesh R., Kumar A., Rajesh R., "Evaluation of microstructure and mechanical properties of multi axial forged lm2 aluminum alloy", Materials Science Forum, 10.4028/www.scientific.net/MSF.969.297, 969 MSF, 297-302, 2019.
295. Bhat R., Mohan N., Kulkarni S.M., Sharma S., "Predictive analysis of peel up delamination in glass fibre reinforced polyester composite drilling", International Journal of Mechanical and Production Engineering Research and Development, 9(Special Issue 2), 694-702, 2019 .
296. Anne G., Ramesh S., Kumar G., Sahu S., Ramesh M.R., Shivananda Nayaka H., Arya S., "Development, Characterization, Mechanical and Corrosion Behaviour Investigation of Multi-direction Forged Mg–Zn Alloy", Minerals, Metals and Materials Series, 10.1007/978-3-030-05789-3_50, 339-343, 2019.
297. Hasavimath K., Naik K., Kotresha B., Gnanasekaran N., "Forced convection through discrete heat sources and simple thermal model - A numerical study", International Journal of Mathematical, Engineering and Management Sciences,10.33889/IJMEMS.2019.4.6-110, 4(6), 1397-1406, 2019.
298. Kadlimatti H.M., Raj Mohan B., Saidutta M.B., "Microwave-assisted pyrolysis of food waste: optimization

of fixed carbon content using response surface methodology", Biofuels,10.1080/17597269.2019.1573609, 2019.

299. Ramesh S., Anne G., Nayaka H.S., Sahu S., Arya S., "Effects of combined multiaxial forging and rolling process on microstructure, mechanical properties and corrosion behavior of a Cu-Ti alloys", Materials Research Express, 10.1088/2053-1591/ab0764, 6(5), 56559, 2019.
300. Kujur M.S., Manakari V., Parande G., Doddamani M., Mallick A., Gupta M., "Role of Rare Earth Oxide Reinforcements in Enhancing the Mechanical, Damping and Ignition Resistance of Magnesium", Minerals, Metals and Materials Series, 10.1007/978-3-030-35790-0_10, 115-124, 2019.
301. Doranalu Chandrashekar V., Shetty A., Patel G C M., "Estimation of Monsoon Seasonal Precipitation Teleconnection with El Niño-Southern Oscillation Sea Surface Temperature Indices over the Western Ghats of Karnataka", Asia-Pacific Journal of Atmospheric Sciences, 10.1007/s13143-019-00133-w, 2019.
302. Nayak S., Muralidhara, Rao R., "Modeling and experimental validation of valve and pumping actuator of a piezo-hydraulic pump", Journal of Mechanical Engineering Research and Developments, 10.26480/jmerd.05.2019.110.114, 42(5), 110-114, 2019.
303. Varghese V., Ramesh M.R., Chakradhar D., Shaik H., "Characterisation and performance evaluation of TiSiN &tiAlSiN coatings by RF magnetron sputtering deposition during end milling of maraging steel", Materials Research Express, 10.1088/2053-1591/ab5e74, 6(12), 126439, 2019.
304. Badiger P.V., Desai V., Ramesh M.R., Prajwala B.K., Raveendra K., "Effect of cutting parameters on tool wear, cutting force and surface roughness in machining of MDN431 alloy using Al and Fe coated tools", Materials Research Express, 10.1088/2053-1591/aae2a3, 6(1), 16401, 2019.
305. Gunge A., Kivade S.B., Nagamadhu M., Gunge A, "Mechanical Properties of Chemical Treated Woven Banana/Polyvinyl Alcohol Composites", Emerging MaterialsResearch,10.1680/jemmr.18.00028, 8(4), 2019.
306. Veeresha R.K., Shilpa M.K., Muralidhara, Rao R., Kumar N., "Investigating the performance of electromagnetic pump fabricated using tool based micromachining setup for microdelivery of fluid", Journal of Mechanical Engineering Research and Developments, 10.26480/jmerd.03.2019.66.70, 42(3),66-70, 2019.
307. Malagi S., Anawal R., Gorabal S.V., Doddamani M., "Flexural and quasi-static compressive behavior of injection-molded walnut shell (WS)/HDPE composites", Journal of Mechanical Engineering Research and Developments, 10.26480/jmerd.05.2019.93.96, 42(5), 93-96, 2019.
308. Sudheer R., Prabhu K.N., "Assessment of PCM-container interfacial heat transfer using a hot/cold probe technique", Heat Transfer - Asian Research, 10.1002/htj.21374, 48(1), 127-134, 2019.
309. Nagabhushana N., Rajanna S., Mathapati M., Ramesh M.R., Koppad P.G., Reddy N.C., "Microstructure and tribological characteristics of APS sprayed NiCrBSi/flyash cenosphere/Cr2O3 and NiCrBSi/flyash cenosphere/Mo composite coatings at elevated temperatures", Materials Research Express, 10.1088/2053-1591/ab24f1, 6(8), 86451, 2019.
310. Bandyopadhyay S., Sriram S.M., Parihar V., Das Gupta S., Mukherjee R., Chakraborty S., "Tunable adhesion and slip on a bio-mimetic sticky soft surface", Soft Matter, 10.1039/c9sm01680e, 15(44), 9031-9040, 2019.
311. Yunus Khan T.M., Soudagar M.E.M., Kanchan M., Afzal A., Banapurmath N.R., Akram N., Mane

S.D., Shahapurkar K., "Optimum location and influence of tilt angle on performance of solar PV panels", Journal of Thermal Analysis and Calorimetry, 10.1007/s10973-019-09089-5, 2019 .

312. Mahesh V., Kattimani S., Harursampath D., Trung N.-T., "Coupled evaluation of the free vibration characteristics of magneto-electro-elastic skew plates in hygrothermal environment", Smart Structures and Systems, 10.12989/sss.2019.24.2.267, 24(2), 267-292, 2019.
313. Kirankumar Gorantla, Shaik Saboor, Shaik Sharmas Vali, Debasish Mahapatra, Ashok Babu Talanki Puttaranga Setty, and Ki-Hyun Kim, "Thermal and cost analysis of various air filled double glazed reflective windows for energy efficient buildings", Journal of Building Engineering, 2019.
314. Vinay Varghese, Abhishek Jagmalpuria, Pradeep V. Badiger, and Ramesh M. R, "Optimisation of machining parameters for end milling of maraging steel MDN 250 using TiAlSiN and TiSiN coated WC-Co inserts", AIP Conference Proceedings, 10.1063/1.5141604, 2204, 040031, 2020.
315. Pradeep V. Badiger, Vijay Desai, M. R. Ramesh, M. Vinyas, C. M. Santhosh, B. K. Prajwala, and L.Raveendra, "Influence of Ti coated tools on process parameters in turning process of MDN431", AIP Conference Proceedings, 10.1063/1.5141592, 2204, 040019, 2020.
316. Hargovind Soni, S. Narendranath, M. R. Ramesh, and P. M. Mashinini, "Enhanced process parameters using TOPSIS method during wire electro discharge machining of TiNiCo shape memory alloy", AIP Conference Proceedings, 10.1063/1.5141578, 2204, 040005, 2020.
317. Aneesh Patil, Srikanth Bontha, Ramesh M.R,, "Effect of ECAP on sliding wear behaviour of Mg-Zn-Gd-Zr alloy", Materials Today: Proceedings,10.1016/j.matpr.2019.10.045, 2019.
318. Thimothy Harold Gonsalves, G. C. Mohan Kumar, and M. R. Ramesh, "Leveraging the effectiveness of hybrid metal-fiber composites in high speed rotating machines", AIP Conference Proceedings, 0.1063/1.5085580 , 2057(1), 020009, 2019.

DEPARTMENT OF MINING ENGINEERING

1. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. "Evaluation of Whole-Body Vibration (WBV) of Dozer Operators Based on Job Cycle", *Journal of The Institution of Engineers (India): Series D, DOI:10.1007/s40033-019-00195-0, Vol. 100, No. 2, pp. 187-193, July 2019.*
2. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. "Evaluation of Whole Body Vibration (WBV) of Dumper Operators Based on Job Cycle", *Mining, Metallurgy & Exploration*, https://doi.org/10.1007/s42461-019-00140-5, Vol. 37. No. 2, pp. 761–772, October 2019.
3. Harish H., Harsha Vardhan, Govinda Raj M., Marutiram Kaza, Rameshwar Sah & Bharath Kumar S. A comparative study on a newly designed ball mill and the conventional ball mill performance with respect to the particle size distribution and recirculating load at the discharge end; Minerals Engineering, Elsevier; Vol. 145, 2020.https://doi.org/10.1016/j.mineng.2019.106091.
4. Vijaya Kumar, C., Vardhan, H., Murthy, Ch.S.N., Estimating rock properties using sound signal dominant frequencies during diamond core drilling operations; Journal of Rock Mechanics and Geotechnical Engineering, 2019, Elsevier; Vol. 11(4), pp. 850-859. https://www.sciencedirect.com/science/article/pii/S1674775518303111.
5. Vijaya Kumar, C., Vardhan, H., Murthy, Ch.S.N., Quantification of

Rock Properties Using Frequency Analysis During Diamond Core Drilling Operations Journal of The Institution of Engineers (India): Series D, 2019, Springer, Vol. 100(1), pp. 67-81, https://link.springer.com/article/10.1007/s40033-019-00174-5

6. Harish Kumar N S., Choudhary, R. P., & Murthy, C. S., "Evolution of the probability distribution function of shovel–dumper combination in open cast limestone mine using RWB and ANN: a case study". *Modeling Earth Systems and Environment*, *5*(4), 2019, 1607-1613 (Springer).https://doi.org/10.1007/s40808-019-00610-1
7. Harish, Kumar, N. S., R. P. Choudhary, and C. S. N. Murthy. "Failure rate analysis of shovel and dumper in opencast limestone mine using RWB and ANN." International Journal of Innovative Technology and Exploring Engineering, 8(5), 2019, 1025-1030.
8. Goriparti, N. S., Murthy, C. S., & Aruna, M. Minimization of Specific Energy of a Belt Conveyor Drive System using Space Vector Modulated Direct Torque Control. International Journal of Innovative Technology and Exploring Engineering, 8(4), 2019, 505-511.
9. Jakkula, B., Govinda Raj and Murthy Ch. S. N.. Maintenance management of load haul dumper using reliability analysis. *Journal of Quality in Maintenance Engineering*.2019 (Online View). https://www.emerald.com/insight/publication/issn/1355-2511/vol/26/iss/2
10. Tripathi, A. K., 2019, "Symmetrical Component Analysis of an Unbalanced Mine Power Distribution System in B²-Spice", Journal of Mines, Metals and Fuels, Vol. 67, No. 6, June, pp. 316 – 319.
11. Lakshminarayana, C.R., Tripathi, A.K., Pal, S.K., 2019, "Estimation of Rock Strength Properties Using Selected Mechanical Parameters Obtained During the Rotary Drilling", Journal of The Institution of Engineers India, Series D, Vol. 100, No. 2, July – December, pp. 1 – 10, D.O.I.: 10.1007/s40033-019-00197-y.
12. Ram Chandar, K**.,** Sharath, S., Gayana, B.C., and Krishna, R, Reddy., 2019. Experimental Investigations on Performance of Concrete Incorporating Precious Slag Balls (PS balls) as Fine Aggregates". International Journal of Advances in Concrete Construction.
13. Gayana, B.C., Shashanka, M., Avinash Rao., and Ram Chandar, K., 2019. An Experiment Investigation on Physical and Mechanical Properties of High Strength Concrete with Suitable Admixture". Materials Science Forum, Transtech Publication, Vol. 972, 10-15, Oct-2019.
14. Gayana, B.C.,and Ram Chandar. K., 2019. Evaluation of strength properties of concrete with iron ore tailings as fine-aggregate using experimental and statistical studies. Journal of Hazardous, Toxic, and Radioactive Waste. ASCE.
15. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. "Assessment of Exposure to Whole-Body Vibration of Dozer Operators Based on Postural Variability", *Mining, Metallurgy & Exploration*, https://doi.org/10.1007/s42461-020-00175-z, Vol. 37, No. 2, pp. 813 -820, January 2020.
16. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. "Musculoskeletal Disorders Among Dozer Operators Exposed to Whole-Body Vibration in Indian Surface Coal Mines", *Mining, Metallurgy & Exploration*, https://doi.org/10.1007/s42461-019-00170-z, Vol. 37, No. 2, pp. 803-811, January 2020.
17. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. "Ergonomic Assessment of Musculoskeletal Disorders Among Surface Mine Workers in India", *Mining, Metallurgy & Exploration*, https://doi.org/10.1007/s42461-020-00200-1, March 2020.
18. Vijay Kumar S, B. M. Kunar, Ch. S. N. Murthy, "ANN model for prediction

of bit-rock interface temperature during rotary drilling of limestone using embedded thermocouple technique", Journal of Thermal Analysis and Calorimetry, Vol. 139 (3), 2020, pp. 2273-2282. (Springer - SCI) (IF: 2.571).

19. Vijay Kumar S, B. M. Kunar, Ch. S. N. Murthy, M. R. Ramesh "Measurement of bit-rock interface temperature and wear rate of the tungsten carbide drill bit during rotary drilling", Friction.2020 https://doi.org/10.1007/s40544-019-0330-2 (Online) (Springer - SCI) (IF: 3.11)
20. Harish Kumar, N. S., Choudhary, R. P., & Murthy, C. S.. Model based reliability analysis of shovel–dumper system's mechanical failures used in the surface coal mine: a case study. In Safety and Reliability, 2020 (Online View). Taylor & Francis. https://doi.org/10.1080/09617353.2020.1759260
21. Prudhvi Krishna. B. N. V. V., Kunar, B. m and Murthy, C. S. Leakage Current Mitigation in Transformer-less Photovoltaic Inverter Systems for Mining Equipment. International Journal of Innovative Technology and Exploring Engineering, 9(2), 2020, 2932-2937.
22. Kumar D and Ram Chandar K., 2020. Zigbee Based Wireless Data Acquisition System for Monitoring of Partition Stability Above Old Underground Coal Workings. Arabian Journal of Geosciences, **13,** 307 (2020). https://doi.org/10.1007/s12517-020-5255-6
23. Jakkula, B., Mandela, G.R. & Chivukula, S.M. Application ANN Tool for Validation of LHD Machine Performance Characteristics. Journal of The Institution of Engineers (India): Series D (2020). (Online View).https://doi.org/10.1007/s40033-019-00203-3
24. Jakkula, B., Mandela, G. R., & Chivukula, S. M. Prediction of Load-Haul-Dumper (LHD) Machine Performance Characteristics using Feed-Forward-Back-propagation ANN Model. International Journal of mechanical and Production Engineering. 8(3), 2020, 58-66.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

1. Ramakrishna Devananda P and **K.** Narayan Prabhu, 'The effect of load and addition of MWCNTs on silicone based TIMs on thermal contact heat transfer across Cu/Cu interface', Mater. Res. Express 6 1165h9, 2019.
2. Swati Agarwala, K. Narayan Prabhu, 'Characterization of metals and salts-based thermal energy storage materials using energybalance method', Heat Transfer—Asian Res.,48:1889-1898, 2019.
3. S. Tikale and K. Narayan Prabhu, 'The Effect of Multi-Walled Carbon Nanotubes Reinforcement and Multiple Reflow Cycles on Shear Strength of SAC305 Lead-Free Solder Alloy', Materials Performance and Characterization 8, no. 3, 421-433, 2019.
4. U. Vignesh Nayak and K. Narayan Prabhu 'Heat Transfer During Quenching in Graphene and Multiwall Carbon Nanotubes Nanofluids Under Agitated, Quench Conditions'J. Nanofluids 8, 1222–1239 (2019).
5. Rao, K.M.P., K. Narayan Prabhu, 'Compositional and Bath Temperature Effects on Heat Transfer During Quenching in Molten NaNO3–KNO3 Salt Mixtures', J. of Materials Engg. and Perform 29, 1860–1868 (2020), https://doi.org/10.1007/s11665-020-04692-2.
6. Swati Agarwala, K. Narayan Prabhu, 'An experimental approach based on inverse heat conduction analysis for thermal characterization of phase change materials, Thermochimica Acta Volume 685, March 2020, 178540.
7. Rao, K.M.P., K. Narayan Prabhu, 'A Comparative Study on Cooling Performance of Hot Oil and Molten Salt Quench Media for Industrial Heat Treatment. J. of Materi Eng and Perform (2020).

https://doi.org/10.1007/s11665-020-04635-x.

8. Kumarswamy, K. Narayan Prabhu and Satyanarayan, 'The Effect of Thermal Ageing on Solder/Substrate Interfacial Microstructures During Reflow of Sn–37Pb and Sn–3Ag–0.5 Cu. MC.' Transactions of the Indian Institute of Metals 72 (6), 1545-1549.
9. M Sona, S Tikale, K. Narayan Prabhu, 'Wettability, Interfacial Intermetallic Growth and Joint Shear Strength of Eutectic Sn–Cu Solder Reflowed on Bare and Nickel-Coated Copper Substrates', Transactions of the Indian Institute of Metals 72 (6), 1579-1583.
10. KMP Rao, UV Nayak, K. Narayan Prabhu, 'Comparison of Cooling Behaviour of Carbon Steels in Polymer, Oil and Carbonated Quench MediaNG Mathews', Transactions of the Indian Institute of Metals 72 (6), 1405-1408.
11. Shankarappa Kalgudi, G.P.Pavithra, K. Narayan Prabhu, Praveennath G.Koppad, C.Venkate Gowda and Satyanarayana, 'Effect of surface treatment on wetting behavior of copper, Materials Today: Proceedings' (2020), https://doi.org/10.1016/j.matpr.2020.01.379
12. Shivaram M., S. B. Arya, Jagannatha Nayak and B. B. Panigrahi 'Electrochemical corrosion and Impedance studies of porous Ti-xNb-Ag alloy in physiological solution' J. of Transactions of the IIM, 73, p921–928 (Springer Journals publications), 2020.
13. M. J. Shivram, S. B. Arya, Jagannatha Nayak, Bharat. B. Panigrahi, 'Role of porosity on electrochemical corrosion behaviour of porous Ti-20Nb-5Ag alloy in simulated body fluid', Materials Today: Proceedings: Doi.org/10.1016/j.matpr.2020.02.952, 2020.
14. R Bairy, A Jayarama, GK Shivakumar, K Radhakrishnan, K. Udaya Bhat, 'Investigation of third-order nonlinear optical properties of nanostructured Ni-doped CdS thin films under continuous wave laser illumination', Journal of Materials Science: Materials in Electronics 30 (7), 6993-7004, 2019.
15. R Bairy, P shankaragouda Patil, SR Maidur, H Vijeth, MS Murari, K. Udaya Bhat, 'The role of cobalt doping in tuning the band gap, surface morphology and third-order optical nonlinearities of ZnO nanostructures for NLO device applications', RSC advances 9 (39), 22302-22312, 2019.
16. C. Prabukumar, MMJ Sadiq, DK Bhat, K. Udaya Bhat, 'SnO2 nanoparticles functionalized MoS2 nanosheets as the electrode material for supercapacitor applications', Materials Research Express 6 (8), 085526, 2019.
17. S Meti, SP Hosangadi, M. R. Rahman, K. Udaya Bhat, 'A single step unique microstructural growth of porous colossal dielectric constant titanium oxide', Applied Physics A 125 (3), 188, 2019.
18. P Huilgol, K. R. Udupa, K. Udaya Bhat, 'Microstructural investigations on the hot-dip aluminized AISI 321 stainless steel after diffusion treatment', Surface and Coatings Technology 375, 544-553, 2019.
19. M.S.Nandana, K. Udaya Bhat, CM Manjunatha, 'Influence of heat treatment on near-threshold fatigue crack growth behavior of high strength aluminum alloy 7010', International Committee on Aeronautical Fatigue, 444-451, 2019.
20. A Augustin, KR Udupa, K. Udaya Bhat, 'Characterization of DC Magnetron Sputtered Copper Thin Film on Aluminium Touch Surface', Transactions of the Indian Institute of Metals 72 (6), 1683-1685, 2019
21. P Huilgol, KR Udupa, K. Udaya Bhat, 'Hot Corrosion Resistance of Hot-Dip-Aluminized AISI 321 Stainless Steel in a Salt Mixture of 60%V2O5 + 40% Na2SO4 at 700 °C' Transactions of the Indian Institute of Metals 72 (6), 1613-1616, 2019.
22. K. Udaya Bhat, S Bhat, 'Joining of Dissimilar Materials Using Friction Welding', Advances in Welding Technologies for Process Development, 211-235, 2019.

23. GK Manjunath, K. Udaya Bhat, G. V. Preetham Kumar, 'Severe plastic deformation of Al-15Zn-2Mg alloy: Effect on wear properties', Key Engineering Materials 803, 22-26, 2019.
24.. MS Nandana, K. Udaya Bhat, CM Manjunatha 'Influence of retrogression and re-ageing heat treatment on the fatigue crack growth behavior of 7010 aluminum alloy', Procedia Structural Integrity 14, 314-321, 2019.
25. K. Udaya Bhat, S Meti, 'Graphene-Based ZnO Nanocomposites for Supercapacitor Applications', Graphene Energy Storage Mater. Supercapacitors 64, 181, 2020.
26. G. K. Manjunath, G. V. Preetham Kumar, K. Udaya Bhat, 'Evolution of Tribological Properties of Cast Al–10Zn–2Mg Alloy Subjected to Severe Plastic Deformation', Structural Integrity Assessment, 165-175, 2020.
27. C. Prabukumar, K. Udaya Bhat, 'Beneficial effect of manganese (II) ions on the morphology of polyol synthesised silver nanowires', Electronic Materials Letters, Vol 6, Issue 3, pp 264-275, 2020.
28.. S Meti, K. Udaya Bhat, M. R. Rahman, Colossal dielectric permittivity of Nylon-6 matrix-based composites with nano-TiO 2 fillers, Applied Physics A 126 (4), 1-11, 2020.
29.. M. S. Nandna, K. Udaya Bhat, C. M. Manjunatha, 'Damage Tolerance Capability of Retrogression and Re-aged 7010 Aluminum Alloy Under FALSTAFF Loading', Transactions of the Indian Institute of Metals, 1-8, 2020.
30. M. S. Nandana, K. Udaya Bhat, CM Manjunatha, S B Arya, 'Electrochemical and Exfoliation Corrosion Behavior of Reversion-Treated High-Strength Aluminum Alloy', Transactions of the Indian Institute of Metals, 1-7, 2020.
31. G. K. Manjunath, K. Udaya Bhat, G. V. Preetham Kumar, 'Dry sliding wear behaviour of Al-5Zn-2Mg alloy processed by severe plastic deformation', Materials Today: Proceedings', Materials Today: Proceedings
32. M. S. Nandna, K. Udaya Bhat, CM Manjunatha, 'Effect of Microstructure on the Fatigue Crack Growth Behavior in Al–Zn–Mg–Cu Alloy', Structural Integrity Assessment, 545-554, 2020.
33. G. K. Manjunath, K. Udaya Bhat, G. V. Preetham Kumar, 'Tensile toughness characteristics of cast Al-Zn-Mg alloys processed byequal channel angular pressing', Materials Science Forum 978, 161-166, 2020.
34. B. Sachin Kumar, V. C. Gudla, R. Ambat, S.K.Kalpathy, S. Anandhan, 'Graphene Nanoclusters Embedded Nickel Cobaltite Nanofibers as Multifunctional Electrocatalyst for Glucose Sensing and Water-splitting Applications', Ceramics International,45,25078-25091 (December 2019).
35. S. Janakiraman, A. Surendran, R. Biswal, S. Ghosh, S. Anandhan, A. Venimadhav, 'Electrospun electroactive polyvinylidene fluoride-based fibrous polymer electrolyte for sodium ion batteries', Materials Research Express,6, 86318-86329 (May 2019).
36. B. Sachin Kumar, K. Tarafder, A. R. Shetty, A. C. Hegde, V. C. Gudla, R. Ambat, S.K. Kalpathy, S. Anandhan, 'Polymorph nickel titanate nanofibers as bifunctional electrocatalysts towards hydrogen and oxygen evolution reactions', Dalton Transactions, Vol. 48, 12684-12698, July 2019.
37. 10. R. Singh, S. Janakiraman, M. Khalifa, S. Anandhan, S. Ghosh, A. Venimadhav, K. Biswas, 'An electroactive ß–phase polyvinylidene fluoride as gel polymer electrolyte for magnesium–ion battery application', Journal of Electroanalytical Chemistry, 851,113417-113426 (October 2019).
38. M. Khalifa, S. Anandhan, 'PVDF Nanofibers with Embedded Polyaniline-Graphitic Carbon Nitride Nanosheet Composites for Piezoelectric Energy Conversion', ACS Applied Nanomaterials, 2, 7328–7339, (October 2019).

39.. S. Shetty, G. S. Ekbote, A. Mahendran, S. Anandhan, 'Polymorphism, dielectric and piezoelectric response of Organo-modified Ni-Co layered double hydroxide nanosheets dispersed electrospun PVDF nanofabrics' Journal of Materials Science: Materials in Electronics, 30, 20703–20715, November 2019.

40.. C. Shamitha, A. Mahendran, S. Anandhan, 'Effect of Polarization Switching on Piezoelectric and Dielectric Performance of Electrospun Nanofabrics of PVDF/Ca-Al LDH Nanocomposite', Journal of Applied Polymer Science, 137,48697-48708, November 2019.

41. C. Shamitha, A. R. Shetty, A. C. Hegde, S. Anandhan, 'Sol-gel electrospun ZnMn2O4 nanofibers as bifunctional electrocatalyst for hydrogen and oxygen evolution reactions', Materials Research Express, Materials Research Express, Vol. 6, 1-10, November 2019.

42. Pavankumar R Sondar, Subray R Hegde, "Deep Cryogenic Treatment of Plain Carbon and Low Alloy Steels", Materials Performance and Characterization, 2020.

43. Basavaraj, pavan kumar sondar , Subray R hedge, "Effect of spheroidization of cementite in ductile cast iron", International journal of minerals , metallurgy and materials, 2020.

44. B. Kumara, Preetham Kumar G. V., "Investigation on Microstructure and Mechanical Properties of Solution Heat-Treated and Multi Directional Forging Processed LM-25 Aluminium Alloy", Trans Indian Inst Met DOI 10.1007/s12666-020-01924-w, February 2020.

45. T.S. Ajmal, Shashi Bhushan Arya, K. Rajendra Udupa, "Effect of hydrodynamics on the flow accelerated corrosion (FAC) and electrochemical impedance behavior of line pipe steel for petroleum industry", International Journal of Pressure Vessels and Piping 174, 42–53, 2019.

46. T.S. Ajmal, Shashi Bhushan Arya, L.R. Thippeswamy, M.A. Quraishi & Jiyaul Haque, "Influence of green inhibitor on flow-accelerated corrosion of API X70 line pipe steel in synthetic oilfield water", Corrosion Engineering, Science and Technology,DOI:10.1080/1478422X.2020.1745355, 2020.

47. Komalakrushna Hadagalli, Rahul Kumar, Saumen Mandal and Bikramjit Basu, "Structural, compositional and spectral investigation of prawn exoskeleton nanocomposite: UV protection from mycosporine-like amino acids", Materials Chemistry and Physics, 249, 123002, March 2020.

48. Abhishesh Pal, Komalakrushna Hadagalli, Poorvi Bhat, Vishesh Goel and Saumen Mandal, "Hydroxyapatite—a promising sunscreen filter", Journal of the Australian Ceramic Society, 56 (1), 345-351, April 2019.

49. Komalakrushna Hadagalli, Asish Kumar Panda, Saumen Mandal and Bikramjit Basu, "Faster Biomineralization and Tailored Mechanical Properties of Marine-Resource-Derived Hydroxyapatite Scaffolds with Tunable Interconnected Porous Architecture", ACS Applied. Bio Materials. 2, 2171−2184, April 2019.

50. G. Manjunath, Pavan Pujar, Bikesh Gupta, Dipti Gupta & Saumen Mandal, "Low-temperature reducible particle-free screen-printable silver ink for the fabrication of high conductive electrodes", Journal of Materials Science: Materials in Electronics, vol-30, P-18647–18658, 2019.

51. G. Manjunath, Sanjay Pujari, D.R. Patil, Saumen Mandal, "A scalable screen-printed high performance ZnO-UV and Gas Sensor: Effect of solution combustion", Materials Science in Semiconductor Processing, Vol-107, P-104828, 2020.

52.. Mayur Jiyalal Prajapati[1], Robbi Vivek Vardhan[1],Saumen Mandal, 'Effect of lanthanum on the phase evolution of perovskite barium stannate synthesized through polymerized complex method', Ceramics International, 45., 17420-17428, 2019.

53. Pavan Pujar, Bikesh Gupta, Pradyut Sengupta, Dipti Gupta, Saumen

Mandal, “Sodium ion incorporated alumina-A versatile anisotropic ceramic”, Journal of the European Ceramic Society, 39, 15, 4473-4486, 20-19.
54. Pavan Pujar, Abhishesh Pal, Saumen Mandal, “Combustion aided in situ consolidation of high strength porous ceramic structures with a minimum thermal budget”, Materials Letters, 265, 127410, 2020.
55. Robbi Vivek Vardhan, G Manjunath, Saumen Mandal, “Fabrication of Solution Combustion Based Transparent Semiconducting Titanium and Zinc Co-Doped Indium Oxide (ITiZO) Films”, Ceramics International, 45., 17420-17428, 2019.
56. T Ram Prabhu, M Arivarasu, Yash Chodancar, N Arivazhagan, G Sumanth and R. K. Mishra, “Tribological Behaviour of Graphite-Reinforced FeNiCrCuMo High-Entropy Alloy Self-Lubricating Composites for Aircraft Braking Energy Applications”, Tribology Letters,67,3,78(1-15), 2019.

SCHOOL OF MANAGEMENT

1. Vadivel S.M., Sequeria A. H., Sunil Kumar Jauhar, Vimal Kumar (2020) “Sustainable postal service design: Integrating quality function deployment from the customers perspective” International Journal of System Assurance Engineering and Management, Springer publishers.11(2),pp.261-273. DOI:https://doi.org/10.1007/s13198-019-00906-6 .
2. Vadivel S.M., and Sequeria A. H. (2019) “A hybrid method for the selection of facility layout using experimental design and grey relational analysis: A case study”, International Journal of Hybrid Intelligent Systems (IJHIS), IOS Press publishers, pp.1-10, DOI: 10.3233/HIS-190264.
3. Hebbar S and Kiran K B, “Social Media Influence and Mobile Government Adoption: A Conceptual Framework and its Validation’, International Journal of Electronic Government Research, doi:10.4018/IJEGR.2019070103, Vol.15, No. 3, pp.37-58, 2019.
4. Shrisha S and Kiran K B, "Technology, Demand and Innovation Capability of Indian MSMEs", IEEExplore, pp 365-371, 2019.
5. Mishra. Sovanjit., & Kumar, S. Pavan. (2019). Prospecting the enablers for adoption of e-recruitment practices in organisations: a proposed framework. International Journal of Environment, Workplace and Employment. 5(3), 235-246.
6. Kumar, S. Pavan. (2020). Workplace Spirituality as an Antecedent of University Teachers' Subjective Well-Being: Mediating Role of Job Satisfaction and Job Performance. Journal of Engineering Education Transformations, 33, 137-146.
7. Manju Mahipalan and Sheena, “Spirituality at Work, OCBs, and Moderating Role of Satisfaction among School Teachers in India”, Journal of Indian Academy of Applied Psychology, Vol 5, Issue 1, pp -64-74, April 2019. Scopus Indexed.
8. Manju Mahipalan, Sheena, Sudheer K.M, “Spirituality and Teacher Self-efficacy on Organizational Citizenship Behaviour of Secondary School Teachers: An Indian Scenario”, Vision, Vol : 23(1), 80-90, 2019. Sage Publications Scopus Indexed.
9. Manju Mahipalan and Sheena S, “Workplace Spirituality, Psychological well-being and mediating role of subjective stress: A case of secondary school teachers in India”, International Journal of Ethics and Systems, Vol.35, No:4, 2019 pp: 725-739. Emerald Publications.
10. Ritanjali Majhi and Aneesha Baneerji Consumer Acceptance towards Renewable Energy Transition, Journal of Environmental Accounting and Management pp279-290,Vol7 issue 3,2019
11. Vikas Bhatnagar; Ritanjali Majhi , Development and comparative performance evaluation of neural network classification techniques for manufacturing sector firms on the

basis of new product growth rate, International Journal of Business Information Systems (IJBIS), Vol. 33, No. 2, 2020

12. Vikas Bhatnagar, Ritanjali Majhi and Sunil Sahadev, Predicting numbers of successful new products to launch using soft computing techniques: A case of firms from manufacturing sector industries, Volume 32, Issue 2, February 2020, Pages 254-26.
13. Dr. Rajesh Acharya H, Energy poverty and economic development: Household-level evidence from India. Co-authored with Anver C. Sadath. Energy and Buildings, Volume 183, 2019, Pages 785-791. https://doi.org/10.1016/j.enbuild.2018.11.047
14. Dr. Rajesh Acharya H, Revisiting the relationship between oil price and macro economy: Evidence from India. Co-authored with Anver C. Sadath. Economics and Policy of Energy and The Environment, 18, 2018, Pages 173-190. DOI: 10.3280/EFE2018-001008 (Published in 2019)
15. Dr. Rajesh AcharyaH, A study on volatility and return spillover of exchange-traded funds and their benchmark indices in India. Co-authored with Bhuvanesh C. Managerial Finance, Vol. 46 No. 1, 2019, pages 19-39. https://doi.org/10.1108/MF-01-2019-0025
16. Dr. Rajesh Acharya H, Do Different Types of Oil Price Shocks Affect the Indian Stock Returns Differently at Firm-level? A Panel Structural Vector Autoregression Approach'. Co-authored with B. Aruna. International Journal of Energy Economics and Policy, Vol 10, No. 2, 2020, Pages 238-249.
17. Bibhu P. Nayak, Pradyot Ranjan Jena, Saswata Chaudhury (2020). Public Expenditure Effectiveness for Biodiversity Conservation: Understanding the Trends for Project Tiger in India. Journal of Forest Economics. 35 (2-3), 229-265.
18. PC Tanti, IS Srujana, Pradyot Ranjan Jena (2020). Can Increase in the Share of Renewable Energy in Economic Growth Shift Turning Point of EKC? Evidence from Time-series Analysis in India. Journal of Environmental Accounting and Management 8 (3), 255-264
19. Khosla, Sunil, and Pradyot Ranjan Jena (2020). Switch in Livelihood Strategies and Social Capital Have a Role to Play in Deciding Rural Poverty Dynamics: Evidence from Panel Data Analysis from Eastern India, Journal of Asian and African Studies, 55 (1), 76-94.
20. Rajesh Kalli, and Pradyot Ranjan Jena (2020). Impact of Climate Change on Crop Yield: Evidence From Irrigated and Dryland Cultivation of Semi-Arid Region in India, Journal of Environmental AccountingandManagement.DOI:10.5890/JEAM.2020.03.002, vol 8, pp 19-30.
21. Pradyot Ranjan Jena (2019). Can minimum tillage enhance productivity? Evidence from smallholder farmers in Kenya. Journal of Cleaner Production. DOI:https://doi.org/10.1016/j.jclepro.2019.01.278, vol 218, pp 465-475.
22. Arjun R and Suprabha K. R, Forecasting Banking Sectors in Indian Stock Markets using Machine Intelligence, International Journal of Hybrid Intelligent Systems, *15 (3), EBSCO, DBLP.*
23. Arjun R and Suprabha K. R, Innovation and Challenges of Blockchain in Banking: A Scientometric view, International Journal of Interactive Multimedia and Artificial Intelligence, 2020 (Science Citation Index), March 2020.
24. Socrates and Gopalakrishna BV, "Investigating the Influence of Psychological Ownership on Exit intention and Passing on Option of Indian Micro and Small Enterprise Owners", International Journal.of Indian Culture and Business Management. Vol. 10 (1), 2020.
25. Doddahulugappa Goutam and Gopalakrishna BV, "Impact of Technology Readiness and E-Service Quality: on Purchase intention and Behavioural Loyalty", International Journal of Technology Management, Vol.5 (2), 2020.

26. Chakraborty, Uttam and Bhat, Savita, "Are online opinion leaders and seekers distinct? A study on consumer electronics industry in India", Global Business Review, DOI: 10.1177/0972150919837093 VOL 20, ISSUE 3, 2019.
27. Deshbhag, Raksha R., and Bijuna C. Mohan, "Study on influential role of celebrity credibility on consumer risk perceptions." Journal of Indian Business Research, DOI:10.1108/JIBR-09-2019-0264, vol 12, no 1, pp79-92, 2020.
28. Ms. Veena Shenoy and Dr. Rashmi Uchil , Paper titled "Virtual Employee Experience–Cognitive Era of HR", published in European Journal of Business and Social Sciences Volume 07, Issue5, published on 2019/5/7.
29. Ms. Veena Shenoy and Dr. Rashmi Uchil, Article titled "Physical Environment and Employee Commitment: A Moderating Role of Work Autonomy", Submission code: IJBIR-31317 – accepted for publication.
30. Ms. Veena Shenoy and Dr. Rashmi Uchil, Manuscript entitled "Flexible Working Arrangement, Employee Engagement and Organizational Commitment: A Mediation Model" has been successfully submitted consideration for publication in the South Asian Journal of Business Studies (Emerald Insights).
31. Pai, R. R., & Alathur, S. Assessing Awareness and Use of Mobile Phone Technology for Health and Wellness: Insights from India. Health Policy and Technology. 8(3), 221-227., 2019 https://doi.org/10.1016/j.hlpt.2019.05.011
32. Pai, R. R., & Alathur, S. Social Media Games: Insights from Twitter Analytics. International Journal of Web-Based Communities. 16(1), 34-50, 2019. https://doi.org/10.1504/IJWBC.2020.105127
33. Pai, R. R., & Alathur, S. Determinants of Individuals' Intention to Use Mobile Health: Insights from India. Transforming Government: People, Process and Policy. 13(3/4), 306-326, 2019. https://doi.org/10.1108/TG-04-2019-0027
34. Pai, R. R., & Alathur, S. Predicting Mobile Health Technology Acceptance by the Indian Rural Community: A Qualitative Study. International Journal of Electronic Government Research (IJEGR). (Accepted), 2020.
35. Jayan V, Sreejith Alathur, Rajesh R. Pai (2020) Sentiment Analysis of an Epidemic: A case of Nipah Virus in India, International Journal of Medical Engineering and Informatics, (Accepted), 2020.
36. Vanitha. P. S. and Sreejith Alathur, E-learning Adoption from Learners' Perspective: Insights from India, Journal of Continuing Engineering Education and Life-long Learning (IJCEELL) Special issue - Network-Based Learning in Life Long Learning Environments, Paper Accepted, 2020.
37. Vanitha P.S and Sreejith Alathur Mobile-Assisted Civic and E-learning Service: Insights from India, Journal of Continuing Engineering Education and Life-long Learning (IJCEELL)Special issue- Network-Based Learning in Life Long Learning Environments. Accepted,2020.
38. Vanitha P S, Sreejith Alathur E-learning Adoption based on Gender Differences: Insight from India, International Journal of Innovation and Learning, (forth coming), 2020.
39. Naganna Chetty and Sreejith Alathur. Honour, hate and violence in social media: insights from India, International Journal of Web Based Communities, 2019 Vol.15 No.4, pp.315 - 326. 2019. DOI: 10.1504/IJWBC.2019.103189.
40. Naganna Chetty and Sreejith Alathur (2019). Digital hate content reduction with mobile edge computing: An architecture. Digital Communications and Networks, In Press, 2020 https://doi.org/10.1016/j.dcan.2019.05.004.
41. Dittin Andrews, Sreejith Alathur and Naganna Chetty. International Efforts for Children Online Safety: A Survey. International Journal of Web Based Communities, 16(2), 123-133, 2020.

DEPARTMENT OF PHYSICS

1. Mahendra K, Kumar H K T, Udayashankar N K, Enhanced structural, optical, thermal, mechanical and electrical properties by a noval approach (nanoparticle doping) on ferroelectric triglycine sulphate, Applied Physics A 130, 2424-2428.
2. Choudhari, Nagabhushan J, Raviprakash, Y,Fernandes, Brian Jeevan, Udayashankar, N K, Role of soaking time on the phase evolution of Cu2ZnSnS4 polycrystals synthesized using melting route for photovoltaic applications, Journal of Alloys and Compounds 799, 314-324.
3. Mahendra K Bhat, Karthik S Nagaraja HS, UdayashankarN K, Modulations of physio-chemical and electronic properties of metalorganic KHO single crystals through Co (OH)2 nanoparticles doping, Journal of Materials Science: Materials in Electronics 30,13, 12566-12576.
4. Reddy P Ramana, Ajith K M; Udayashankar N K, Effect of electrolyte concentration on morphological and photoluminescence properties of free standing porous anodic alumina membranes formed in oxalic acid, Materials Science in Semiconductor Processing 106, 104755.
5. Shashikala, H D, Udayashankar N K, Influence of Fe3+ ions on optical, structural, thermal and mechanical properties of Li2O–Na2O–K2O–ZnO–B2O3 based glass system Ceramics International 46,4, 5213-5222.
6. Mahendra K, Udayashankar N K, Growth and comparative studies on oxalic acid dihydrate, potassium oxalate hydrate and potassium hydrogen oxalate oxalic acid dihydrate single crystals, Journal of Physics and Chemistry of Solids, 138, 109263.
7. Reddy P Ramana, Ajith K M ; Udayashankar N K, Structural and optical analysis of silver nanoparticles grown on porous anodic alumina membranes by electro-less deposition, Materials Today: Proceedings, 19, 2633-2638.
8. Mahendra K, Udayashankar N K
   A study on structural, optical, thermal and electrical properties of the amaranth dye-doped KHOOD single crystal, International Journal of Modern Physics B, 34 4 2050002.
9. Subhashini,H.D.Shashikala,N.K. Udayashankar, Influence of Fe3+ ions on optical,structural, thermal and mechanical properties of Li2O–Na2O–K2O–ZnO–B2O3 based glass system, CERAMICS INTERNATIONAL PISSN:02728842, 46, Pages: 5213-5222.
10. A Amudha,H D Shashikala,O S Asiq Rahman,Anup Kumar Keshri,H S Nagaraja, Effect of graphene oxide loading on plasma sprayed aluminagraphene oxide composites for improved anticorrosive and hydrophobic surface, Surface Topography: Metrology and Properties PISSN:, 7, Pages: 24003-24015.
11. A Amudha,H D Shashikala,H S Nagaraja, Finite element analysis of thermal residual stresses in SS-309Mo and Inconel-625 multilayer weld deposition on low carbon steel, INTERNATIONAL JOURNAL OF FATIGUE PISSN: 01421123, 127, Pages: 338-344.
12. Soumalya Bhattacharya,H. D.Shashikala, effect of BaO on thermal and mechanical properties of alkaline earthborosilicate glasses with and without Al2O3, PHYSICA BCONDENSED MATTER PISSN: 09214526, 571, Pages: 76-86.
13. Varadharaja Perumal,M.N. Satyanarayan,Gopalakrishna Hegde,D. Alagarasan,R.Ganesan, Controlled growth of 1DZnO Nanotubes using one-step hot plate technique for CZTS Heterojunction solar cells, MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING PISSN: 13698001, 106, Pages:104763- 104770.
14. Naveenchandra Pilicode,Praveen Naik,KM Nimith,MadhukaraAcharya,M N Satyanarayan,AirodyVasudeva Adhikari New cyanopyridine based Conjugated polymers carrying Auxiliary electron donors: From molecular design to blue emissive PLEDs, DYES AND PIGMENTS PISSN: 01437208, 174, Pages: 108046-108053.

15. PK Pandey,H Ulla,MN Satyanarayan,K Rawat,A Gaur,S Gawali,Puthussericka l Abdulrahiman Hassan,Himadri B Bohidar, Fluorescent MoS2 Quantum Dot-DNA Nanocomposite Hydrogels for Organic Light-Emitting Diodes, ACS APPLIED NANO MATERIALSPISSN: 25740970, 3 , Pages: 1289- 1297
16. Raveendra Kiran,Hidayath Ulla,M.N. Satyanarayan,G. Umesh, Optoelectronic properties of hybrid diodes based on vanadylphthalocyanine and zinc oxide nanorods thin films, OPTICAL MATERIALS PISSN: 09253467, 96, Pages: 109348-109354.
17. Varadharajaperumal,S. Murugaiya,Gopalakrishna Hegde,M.N. satyanarayan, Effect of CuPc and PEDOT:PSS as hole transport layers in planar heterojunction CdS/CdTe solar cell, MATERIALS RESEARCH EXPRESS PISSN: 20531591, 6, Pages: 95009-95018.
18. Makesh Mohan,M.N. Satyanarayan,Darshak Trivedi, Exploring the Possibilities of Double Proton Transfer in Hydrazides, JOURNAL OF PHYSICAL ORGANIC CHEMISTRY PISSN: 08943230, 32, Pages:4003-4010.
19. Makesh Mohan,M.N. Satyanarayan,Darshak Trivedi, Photophysics of Proton Transfer in Hydrazides: A Combined Theoretical and Experimental Analysis towards OLED Device Application, NEW JOURNAL OF CHEMISTRY PISSN: 11440546, 43, Pages:10413-10428.
20. Makesh Mohan,M.N.Satyanarayan,DarshakTriv edi, Functionalized Pyrene-based AIEgens: Synthesis, Photophysical Characterization and DFT studies, JOURNAL OF LUMINESCENCE PISSN: 00222313, 34, Pages: 715-723.
21. Praveen Naik,Madhukara Acharya,NaveenchandraPilicode,Nimit h K M,AirodyVasudeva Adhikari,M.N. Satyanarayan, New blue light emitting Cyanopyridine based conjugated polymers: From molecular engineering to PLED applications, JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY ACHEMISTRY PISSN: 10106030, 378, Pages:38-45.
22. Brijesh K,H S Nagaraja, Lower Band Gap Sb/ZnWO4/r-GO Nanocomposite Based Supercapacitor Electrodes, JOURNAL OF ELECTRONIC MATERIALS PISSN:03615235, 48, Pages:4188-4195.
23. Brijesh K,H S Nagaraja, ZnWO 4/r-GO nanocomposite as high capacity anode for lithium-ion battery, IONICS PISSN:09477047, 26, Pages:1-11.
24. K Brijesh,K Bindu,A Amudha,HS Nagaraja, Dual electrochemical application of r-GO wrapped ZnWO4/Sb Nanocomposite, MATERIALS RESEARCH EXPRESS PISSN: 20531591, 6, Pages:115030-115031.
25. K Brijesh,PC Dhanush,S Vinayraj,HS Nagaraja, Monoclinic Wolframite ZnWO4/SiO2 nanocomposite as an anode material for Lithium ion Battery, MATERIALS LETTERS PISSN:0167577X, 275, Pages:128108-128109.
26. K Mahendra,KS Bhat,HS Nagaraja,NK Udayashankar, Modulations of physiochemical And electronic properties of Metalorganic KHO single crystals Through Co(OH)2 nanoparticles Doping, JOURNAL OF MATERIALS SCIENCEMATERIALS IN ELECTRONICS PISSN: 09574522, 30, Pages:12566-12576
27. K Bindu,HS Nagaraja, Influence of cations in MFe2O4 (M: Fe,Zn, Ni, Sn) ferrite Nanoparticles on the Electrocatalytic activity for application in hydrogen peroxide sensor, MATERIALS RESEARCH EXPRESS PISSN:20531591, 6, Pages:95015-0.
28. Karthik S Bhat, HS Nagaraja, Performance evaluation of Molybdenum dichalcogenide (MoX2; X= S,Se, Te) Nanostructures for hydrogen Evolution reaction, INTERNATIONAL JOURNAL OF HYDROGEN ENERGY PISSN: 03603199, 44, Pages:17878-17886.
29. Karthik S Bhat,HS Nagaraja, Morphologydependent electrochemical performances of nickel hydroxide

nanostructures, BULLETIN OF MATERIALS SCIENCE PISSN:02504707, 42, Pages:265-0
30. Recent trends and insights in nickel chalcogenide nanostructures for watersplitting reactions, Materials Research Innovations PISSN: 14328917, 1, Pages: 1-24.
31. Karthik S Bhat,Basavaraj R Huvinahalli,HS Nagaraja,Two-Dimensional CadmiumHydroxide Nanosheets forElectrochemical CapacitorsUnder High OperatingVoltage JOURNAL OF ELECTRONICMATERIALS PISSN: 03615235, 49, Pages: 995-1001.
32. Karthik S Bhat,HS Nagaraja, In Situ Synthesis of Copper SulfideNickel Sulfide Arrays on ThreeDimensional Nickel Foam forOverall Water Splitting, CHEMISTRYSELECT PISSN: 23656549, 5, Pages:2455-2464.
33. Mrudul, M.S., Thomas, S., Ajith, K.M., Anharmonicities in the temperature-dependent bending rigidity of BC3 monolayer, JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS PISSN: 00223697, 146, Pages:1-6.
34. Thomas,M.S. Manju,K.M. Ajith,S.U. Lee and M. Asle Zaeem, Strain-induced work function in h-BN and BCN monolayers, PHYSICA E-LOWDIMENSIONAL SYSTEMS & NANOSTRUCTURES PISSN: 13869477, 123, Pages: 1-9.
35. A.Naveena KumaraC.L.Ahmed Rizwan Kartheek Hegde K.M. Ajith, Repulsive interactions in the microstructure of regular Hayward black hole in anti-de Sitter spacetime, PHYSICS LETTERS B PISSN: 03702693, 807, Pages:1-7
36. P Ramana, Reddy,K.M Ajith,N.K Udayashankar, Effect of electrolyte concentration on morphological andPhotoluminescence properties of free standing porous anodicalumina membranes formed in oxalic acid, MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING PISSN: 13698001, 106, Pages: 1-7.
37. C. L. Ahmed Rizwan, A. Naveena Kumara, K. V. Rajani, Deepak Vaid K. M. Ajith, Effect of dark energy in Geometrothermodynamics and phase transitions of regular Bardeen AdS black hole, GENERAL RELATIVITY AND GRAVITATION PISSN: 00017701, 51, Pages:1-7.
38. Siby Thomas, Ajith Kulangara Madam, and Mohsen Asle Zaeem*, Stone−Wales Defect Induced Performance Improvement of BC3 Monolayer for High Capacity Lithium-Ion Rechargeable Battery Anode Applications, JOURNAL OF PHYSICAL CHEMISTRY C PISSN: 19327447, 124, Pages:5910-5919.
39. Partha P. Das,M. Cahay,S. Kalita,S. S. Mal,A. K. Jha, Width dependence of the 0.5 × (2e2/h) conductance plateau in InAs quantum point contacts in presence of lateral spin-orbit coupling, SCIENTIFIC REPORTS , 9, 2019, p. 12172.
40. S. Kumari,S. Maity,A. V. Anjana,D. Shee,P. P. Das,S. S. Mal, Improved electrochemical performance of graphene oxide supported vanadomanganate (IV) nanohybrid electrode material for supercapacitors, CERAMICS INTERNATIONAL, 46, 2019, p. 3028.
41. Shreyas P Berg,Sebastian Sebastian, Anupama Krinski, Valentin I. Luther, Stefan Shajahan,T. K., Spiral wave unpinning facilitated by wave emitting sites in cardiac monolayers, PROCEEDINGS OF THE ROYAL SOCIETY MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCESPISSN:13645021, 475, pages:20190420-0.
42. Indukuru Ramesh Reddy,Peter M Oppeneer,Kartick Tarafder, Interfacial Spin Manipulation of Nickel-Quinonoid Complex Adsorbed on Co (001) Substrate, MAGNETOCHEMISTRY PISSN: 23127481, 5, Pages:2-0
43. Nasir Ali, Budhi Singh, ZaheerAhmed Khan, Vijaya AR ,Kartick Tarafderand SubhasisGhosh, Origin of ferromagnetism inCu-doped ZnO, SCIENTIFIC REPORTS PISSN: 20452322, 9, Pages:1-7
44. Sruthi T,Kartick Tarafder, Route to achieving enhanced quantum capacitance in Functionalized graphene based Supercapacitor

electrodes, JOURNAL OF PHYSICSCONDENSED MATTER PISSN: 09538984, 31, Pages: 475502-0

45. B Sachin Kumar,Kartick Tarafder,Akshatha R Shetty, A Chitharanjan Hegde,Visweswara C Gudla, Rajan Ambat, Sreeram K Kalpathy, S Anandhan, Polymorph nickel titanate nanofibers as bifunctional Electrocatalysts towards hydrogen and oxygen evolution reactions, DALTON TRANSACTIONS PISSN: 14779226, 48, Pages:12684-12698
46. Sruthi T,Kartick Tarafder, Enhancement of quantum capacitance by chemical modification of graphene supercapacitor electrodes: a study by first principles, BULLETIN OF MATERIALS SCIENCE PISSN: 02504707, 42, Pages:257-0.
47. Nasir Ali, AR Vijaya, Zaheer Ahmed Khan, Kartick Tarafder, Anuvesh Kumar, Manoj K Wadhwa, Budhi Singh,Subhasis Ghosh, Ferromagnetism from non-magnetic ions: Ag-doped ZnO, SCIENTIFIC REPORTS PISSN: 20452322, 9, Pages:1-13
48. Sulakshana Shenoy,Kartick Tarafder, Enhanced photocatalytic efficiency of layered CdS/CdSe heterostructures: Insights from first principles electronic structure calculations, JOURNAL OF PHYSICSCONDENSED MATTER PISSN: 09538984, 27, Pages: 275501-0.
49. Ido Azuri, Md Ehesan Ali, Kartick Tarafder, Peter M Oppeneer, Leeor Kronik, Fe-porphyrin on Co (001) and Cu (001):A Comparative Dispersionaugmented Density Functional Theory Study, ISRAEL JOURNAL OF CHEMISTRY PISSN:00212148, 1, Pages:1-0.
50. Soumitra Payra, Sulakshana Shenoy, Chanchal Chakraborty, Kartick Tarafder, Sounak, Structure-Sensitive Electrocatalytic Reduction of CO2 to Methanol over Carbon-Supported Intermetallic PtZn Nano-Alloys, ACS APPLIED MATERIALS & INTERFACES PISSN: 19448244, 12, Pages:19402-19414.
51. T Jairam,N Verma,K Tarafder,V Sivakumar, Phenanthroimidazole based chromophores for Organic Light Emitting Diodes: Synthesis, Photophysical and Theoretical Study, LUMINESCENCE PISSN: 15227235, 0, Pages:0-0.
52. Agullo,J. Olmedo,V. Sreenath, xAct Implementation of the Theory of Cosmological Perturbation in Bianchi I Spacetimes, MATHEMATICS PISSN:22277390, 8, Pages: 290-309

NATIONAL JOURNALS

DEPARTMENT OF APPLIED MECHANICS & HYDRAULICS

1. Vikas Mendi, Jaya Kumar Seelam & Subba Rao, Evaluation of tidal stream energy at major tidal, inlets of Goa, India ISH Journal of Hydraulic Engineering, ISSN: 0971-5010 (Print) 2164-3040(Online):2019 https://doi.org/10.1080/09715010.2019.1692313
2. A Comparative Analysis of Forest Fire Risk Zone Mapping Methods with Expert Knowledge H Yathish, KV Athira, K Preethi, U Pruthviraj, A Shetty in Journal of the Indian Society of Remote Sensing 47(10) · September 2019 DOI: 10.1007/s12524-019-01047-w

DEPARTMENT OF CIVIL ENGINEERING

1. Biji Chinnamma Thomas, R. Shivashankar, Sarah Jacob and Meera Susan Varghese (2019),"Erosion studies on Lithomargic clays", Indian Geotechnical Journal, **50,** 142–156 (2020), Springer publishers, scopus indexed, https://doi.org/10.1007/s40098-019-00364-8
2. GB Mahesh, B Manu (2019), "Removal of ametryn and organic matter from wastewater using sequential anaerobic-aerobic batch reactor: A performance evaluation study",

Journal of environmental management 249, 109390.
3. D Nagappa, B Manu (2019)," Nano-scale Iron Oxide as Heterogeneous Fenton Catalyst for Organic Pollution Degradation and Heavy Metal Remediation in Water Sample of Byramangala Lake, Karnataka", Asian Journal of Water, Environment and Pollution 16 (3), 25-33.
4. M Yaseen, B Manu, N Kudri, HS Govardhanaswamy (2019), "Use of redox mediators for the enhanced degradation of selected nitrophenols", Applied Water Science 9 (8), 194.
5. GB Mahesh and B Manu (2020)," Enhancement of Ametryn Biodegradation Efficiency using Anthraquinone-2,6-Di-sulphonate in Anaerobic-Aerobic Treatment" Environmental Engineering and Management Journal.
6. Bhaskar S, B Manu and Sreenivasa M Y (2020)," Bioleaching of iron from fly ash using a novel isolated Acidithiobacillus ferrooxidans strain and evaluation of catalytic role of leached iron in the Fenton's oxidation of Cephalexin", J. Indian Chem. Soc., 97, 360-367

SCHOOL OF MANAGEMENT

1. Kiran Raveendran and Dhishna Pannikot."Exploring Third Gender Politics in Indian Cinema: A Comparative Study of Chitrangada and Naanu Avanalla...Avalu," Journal of Arts, Culture, Philosophy, Religion, Language and Literature. Daya Shankar Tiwary Ed. Vol 3, Issue 4. 312-314. ISSN 2457-0346. 2019.
2. Ajay Massand and Gopalakrishna BV, "Do Foreign Banks follow their home clients in Indian States?" Humanities and Social Science Studies, Vol. No. 8 (2), 2019.
3. Shamal, S., and Bijuna C. Mohan,"Consumer Acceptance of Branded Fortified Foods and Beverages in India: Towards a Conceptual Framework." Indian Journal of Marketing vol 49, no.10,DOI: 10.17010/ijom/2019/v49/i10/147562 2019.
4. Ms. Veena Shenoy and Dr. Rashmi Uchil, Manuscript titled COVID 19 -A Metamorphosis in Indian Higher Education Institutions with Technology Infused Learning submitted to Research and Practice in Technology Enhanced Learning (Springer)

INTERNATIONAL CONFERENCES

DEPARTMENT OF APPLIED MECHANICS & HYDRAULICS

1. Ananya S. G. and L. Nandagiri, "Modeling Actual Evapotranspiration using the Advection Aridity Model", *Proceedings of Third National Conference on Emerging trends in Science and Engineering* held at SMVITM Campus in Bantakal, Udupi District, Karnataka, India during April 26 & 27, 2019.
2. Usha Aswathaiah and L. Nandagiri. "Reservoir and Land-Use Induced Changes in River Flow Dynamics in a Tropical River Basin in India." *Geophysical Research Abstracts,* Vol. 21, EGU2019-1658, Vienna, Austria, 2019.
3. Niranjan, S., Nandagiri, L. "Performance of Modified Temperature-Based Reference Crop Evapotranspiration Models across Different Agro-Climatic Zones in Karnataka State, India." *EGU General Assembly 2020*, Vienna, Austria.
4. S Niranjan and L Nandagiri. "Evaluation of Solar Radiation Equations for Estimating Reference Crop Evapotranspiration in different Agro-Climatic Zones of Karnataka State, India", *AGU Fall Meeting* 2019, USA, 2019.
5. Krishnan, C. and A. Mahesha, (2019). Trend analysis of rainfall in the Netravathi basin of Karnataka. In: *Proc. Int. Conf. Hydraulic, Water Resources and Coastal Engg., (HYDRO 2019)*, Editors: Gopal Naik, M., Suresh Kumar N, Anjaneya Prasad, M, Raja Sekhar, P, Shashikanth K, Prasanna, SVSNDL and Harish Gupta, BS Publications, Hyderabad, ISBN: 978-93-8935-484-3, Vol. 1, 230-238.

6. Sharannya TM, Dinesh Kumar M. and A. Mahesha, (2019). Assessment of water balance of a humid tropical river basin. *Proc. Int. Conf. Hydraulic, Water Resources and Coastal Engg., (HYDRO 2019)*, Editors: Gopal Naik, M., Suresh Kumar N, Anjaneya Prasad, M, Raja Sekhar, P, Shashikanth K, Prasanna, SVSNDL and Harish Gupta, BS Publications, Hyderabad, ISBN: 978-93-8935-484-3, Vol. 1, 602-608.
7. Dinesh Kumar M., Sharannya TM and A. Mahesha, (2019). A comparative study on univariate and bivariate flood frequency analysis in Netravathi basin, Karnataka. *Proc. Int. Conf. Hydraulic, Water Resources and Coastal Engg., (HYDRO 2019)*, Editors: Gopal Naik, M., Suresh Kumar N, Anjaneya Prasad, M, Raja Sekhar, P, Shashikanth K, Prasanna, SVSNDL and Harish Gupta, BS Publications, Hyderabad, ISBN: 978-93-8935-484-3, Vol. 1, 609-617.
8. Sarika, M. and A. Mahesha, (2019). Monthly reference evapo-transpiration estimation using ANN model for Surathkal, Karnataka. *Proc. Int. Conf. Hydraulic, Water Resources and Coastal Engg., (HYDRO 2019)*, BS Publications, Hyderabad, ISBN: 978-93-8935-484-3, Vol. 1, 3036-3039.
9. Krishnan, C. and A. Mahesha (2019). Impact of rainfall trend on groundwater in humid, tropical coastal region of India. *Proc. American Geophysical Union Fall Meeting* (2019), H51K-1636.
10. Formetta, G. S., Deb Barma, A. Mahesha and R. Rigon, (2019). Quantifying flood and drought hazards and impact on a large data-scarce Indian river basin. Atti delle Giornate dell'Idrologia 2019, Bologna, *Italian Hydrological Society*, 13.
11. Sandesh Upadhyaya K., Subba Rao, and Manu, Assessment of wind and wave energy potential along the Indian coast International conference on Recent Advancements in Renewable Energy [RARE-2020], NITK Surathkal, India,7-9th Feb 2020, Proc. of RARE 2020, Bluerose Publishers, pp 130-135 (ISBN: 978-1-64826-759-8).
12. Hajira Rahumath, Sandesh Upadhyaya, Subba Rao and K.H. Barve, A Numerical Model Study on Shoreline Changes along the New Mangalore Port Trust, Panambur, International symposium on Advances in Coastal Research with special reference to Indo Pacific [AdCoRe IP-2019], National Centre for Coastal Research (NCCR), Chennai, India, Book of abstracts AdCoRe IP-2019, p. 33, 17-19th Dec 2019.
13. Sandesh Upadhyaya, Subba Rao and Manu, Simulation of Design Wave Height along Karnataka Coast Using Mike 21 Numerical Model, International symposium on Advances in Coastal Research with special reference to Indo Pacific [AdCoRe IP-2019], National Centre for Coastal Research (NCCR), Chennai, India. Book of abstracts AdCoRe IP-2019, p. 90, 17-19th Dec 2019.
14. V. Kumaran, Manu and Subba Rao, Analysing the Wave Forces on Vertical Caisson Breakwater- A Numerical Approach, International symposium on Advances in Coastal Research with special reference to Indo Pacific [AdCoRe IP-2019], National Centre for Coastal Research (NCCR), Chennai, India. Book of abstracts AdCoRe IP-2019, p. 161, 17-19th Dec 2019.
15. E. Sailesh sairen, Subba Rao and N.T. Reddy, Comparison of Overtopping Discharges for Impermeable and Permeable Breakwaters using MIKE 3 WFM, International symposium on Advances in Coastal Research with special reference to Indo Pacific [AdCoRe IP-2019], National Centre for Coastal Research (NCCR), Chennai, India. Book of abstracts AdCoRe IP-2019, p. 163, 17-19th Dec 2019.
16. Kumaran V, Manu and Subba Rao, Experimental Investigation on the performance of vertical-caisson type breakwater with and without toe protection , 24th HYDRO-2019-International conference on Hydraulics, water resources & coastal engineering, Dept. of civil engg., University college of engg., Osmania University, Hyderabad, India. Proc. of HYDRO-2019, Vol I, pp. 526 – 534 , 18-20th Dec 2019. (ISBN- 978-93-8935-484-3)

17. Vishwanatha Mane, Subba Rao, A.Vittal Hegde, Laboratory investigations on the wave overtopping characteristics of emerged quarter circle breakwater, 24th HYDRO-2019-International conference on Hydraulis, water resources & coastal engineering, Dept. of civil engg., University college of engg.,Osmania University, Hyderabad, India. Proc. of HYDRO-2019, Vol I, pp. 405 – 413, 18-20th Dec 2019 (ISBN- 978-93-8935-484-3)
18. Sandesh upadhyaya K., Subba Rao, and Manu, Evaluating wind speed datasets for indian domain 24th HYDRO-2019-International conference on Hydraulis, water resources & coastal engineering, Dept. of civil engg., University college of engg.,Osmania University, Hyderabad, India. Proc. of HYDRO-2019, Vol II, pp. 3220 – 3227, 18-20th Dec 2019 (ISBN-978-93-8935-484-3)
19. Anusha Jain and Subba Rao, Application Of Soft Computing Technique For Prediction Of Wave Transmission Characteristics Of Coastal Vegetation, 24th HYDRO-2019-International conference on Hydraulis, water resources & coastal engineering, Dept. of civil engg., University college of engg.,Osmania University, Hyderabad, India. Proc. of HYDRO-2019, Vol II, pp. 2956 – 2963, 18-20th Dec 2019 (ISBN- 978-93-8935-484-3)
20. Suman Kundapura, Subba Rao and Arkal Vittal Hegde, Stability parameter prediction of semicircular Breakwater by using hybrid models, 24th HYDRO-2019-International conference on Hydraulis, water resources & coastal engineering, Dept. of civil engg., University college of engg.,Osmania University, Hyderabad, India. Proc. of HYDRO-2019, Vol II, pp. 3091– 3100, 18-20th Dec 2019 (ISBN- 978-93-8935-484-3)
21. B. Vinay Kumar, K. Sadhik, Kumaran V, Subba Rao, and Manu, An Experimental Investigation on Toe Stability for Vertical- Caisson Breakwaters, International Conference on "Civil Engineering Trends and Challenges for Sustainability" CTCS-2019, May 23-24, 2019, NMAMIT, Nitte
22. Karthika B S,Paresh Chandra Deka, 2020, Comparisons of hybridized model for one season ahead air temperature prediction, *International conference on recent advances in renewable eneregy-RARE2020,NITK,7th to 9th Feb ISBN978-1-64826-759-8pp.151-156*
23. Rachit Agarwal,Fairyqueen Deka,Paresh Chandra Deka, 2020, Application of Artificial intelligence techniques in renewable energy systems-a review, *International conference on recent advances in renewable eneregy-RARE2020,NITK,7th to 9th Feb-ISBN978-1-64826-759-8pp.50-55*
24. Nizar, S., Dodamani, B. M., "Satellite-Based Top-Down Approach to Quantify Wildfire Aerosol Emissions over California", American Geophysical Union, Fall Meeting 2019, abstract #A11I-2684, December 2019, 2019AGUFM.A11I2684N
25. Pathak, A., Dodamani, B. M., " Enhancement in the Characterization of Historical and Future Droughts with a Copula Based Integrated Drought Index". American Geophysical Union, Fall Meeting 2019, abstract #H21K-1897 December 2019 2019AGUFM.H21K1897P
26. AA Pathak, BM Dodamani, " Application of remotely sensed NDVI and soil moisture to monitor long-term agricultural drought", Earth Resources and Environmental Remote Sensing/GIS Applications X 11156
27. A Yadav, W Makhdumi, BM Dodamani, GS Dwarakish, "Estuary Change Analysis using LANDSAT Satellite Imagery: A Case Study of Kali River Estuary, West Coast of India", HYDRO 2019, HYDERABAD, INDIA
28. Chinmayi B.Y., and Ramesh H., 2019. Spatio-temporal analysis trend and non-stationarity of rainfall in Hemavathi basin. Prof. of Int. Conf., 24th HYDRO held at Osmonia University from 18-20, December 2019. Pp 1802-1808
29. Nitya R Govind, Chinmayi B.Y., and Ramesh H., 2019. Spatio-temporal variations in land surface temperature due to urbanization: A case study of

Bengaluru India. Prof. of Int. Conf., 24th HYDRO held at Osmonia University from 18-20, December 2019. Pp 2745-2751.
3. Nitya R Govind and H. Ramesh, (2019). Comparison of different PAN sharpening techniques using Landsat 8 imagery. Proc. Of 5th int. conference for Convergence in technology 2019, 5th International Conference for Convergence in Technology (I2CT) Pune, India. Mar 29-31, 2019 (IEEE digital explore).

30. Vadelu Krishna Chaithanya, Nasar.T and Kunhimammu Paravath (2019). A study on shore line dynamics during and post-construction of break waters in kasaragod fishing harbor. The Fifth International Conference on Emerging Trends in Engineering (ICETE-2019), 23rd - 24th May NMAM Institute of Technology, Nitte, Karnataka.
31. Ammu John, Nasar.T and Kunhimammu Paravath (2019). A study on morphodynamic nature of Muthapozhi harbor using geospatial approach. The Fifth International Conference on Emerging Trends in Engineering (ICETE-2019), 23rd - 24th May, NMAM Institute of Technology, Nitte, Karnataka.
32. Shwetha Shri and T.Nasar., (2019). Scale effects of sloshing on a sway excited Rectangular ship tank. Proceedings of *the6th International Conference on Ship & Offshore Technology*, IIT Kharagpur, India, November, 7-8.
33. Ashwin A., T. Nasar and S. Arun., (2020). Vibration based damage detection of structures using Artificial Neural Networks. Proceedings of *the second ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)*, Kolkata. March 2-4.
34. K. Chaitanya Sai, Ajay H. Patil & D. Karmakar, (2019), Numerical investigation of spar-type floating wind turbine combined with wave energy converter, International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS-2019), 23rd – 24th May 2019, N.M.A.M.I.T., NITTE, Karnataka.
35. K. Kalyan Kumar & D. Karmakar, (2019), Coupled dynamic analysis of spar-type floating wind turbine under different environmental conditions, International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS-2019), 23rd – 24th May 2019, N.M.A.M.I.T., NITTE, Karnataka.
36. Athul Krishna K.R., V. Venkateshwarlu & D. Karmakar, (2019), Wave transformation due to a submerged porous block associated with a vertical barrier, Proceedings of International Conference on Asian and Pacific Coasts (Springer), 717-724.
37. K. Chaitanya Sai, Ajay H. Patil & D. Karmakar (2019), Motion Response Analysis of Floating Wind Turbine Combined with Wave Energy Converter, Proceedings of International Conference on Asian and Pacific Coasts, (Springer), 1099-1106.
38. Ajay H. Patil & D. Karmakar (2019), Hydrodynamic performance of spar-type wind turbine platform combined with wave energy converter, International Conference on Trending Moments and Steer Forces – Civil Engineering Today (TMSF), 29th October – 1st November, 2019, Fatorda, Goa.
39. Rony J.S. & D. Karmakar (2019), Long-term response analysis of different configurations of spar-type floating wind turbine, International Conference on Trending Moments and Steer Forces – Civil Engineering Today (TMSF), 29th October – 1st November, 2019, Fatorda, Goa.
40. Ajay H. Patil & D. Karmakar (2019), Numerical investigation of TLP-type wind turbine combined with wave energy converters, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th – 20th December, 2019, University College of Engineering, Osmania University, Hyderabad.
41. Rony J.S. & D. Karmakar (2019), Response analysis of combined wave and wind energy spar type platform, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th –

20th December, 2019, University College of Engineering, Osmania University, Hyderabad.
42. Suraj Nayak U. & D. Karmakar (2019), Coupled dynamic analysis of STLP-type offshore floating wind turbine, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th – 20th December, 2019, University College of Engineering, Osmania University, Hyderabad.
43. Athul Krishna, K.R. & D. Karmakar (2019), Wave dissipation due to multiple submerged porous block associated with vertical barrier, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th – 20th December, 2019, University College of Engineering, Osmania University, Hyderabad.
44. V. Venkateswarlu, K.M. Praveen & D. Karmakar (2019), Analytical study on wave trapping performance of horizontal multi-layered porous breakwater away from vertical wall, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th – 20th December, 2019, University College of Engineering, Osmania University, Hyderabad. K.M. Praveen,
45. V. Venkateswarlu & D. Karmakar (2019), Wave attenuation due to the presence of vertical barrier in the hydroelastic analysis of VLFS, International Conference on Hydraulics, Water Resource and Coastal Engineering (HYDRO), 18th – 20th December, 2019, University College of Engineering, Osmania University, Hyderabad.
46. Suraj Nayak U. & D. Karmakar (2020), Long-term response analysis of v-shaped semi-submersible type offshore floating wind turbine, International Conference on "Recent Advances on Renewable Energy (RARE-2020)" 7th – 9th February, 2020, NITK Surathkal, Mangalore, India.
47. K. Kalyan Kumar, Rony J.S. & D. Karmakar (2020), Response analysis of spar type platform with different mooring line configuration, International Conference on "Recent Advances on Renewable Energy (RARE-2020)" 7th – 9th February, 2020, NITK Surathkal, Mangalore, India.
48. Raja Pandi R., Vadivuchezhian Kaliveeran, "Finite element analysis of rig used for fretting experiments." Materials Today: Proceedings, Vol. 27, part 3, pp 2349-2354, 2020, https://doi.org/10.1016/j.matpr.2019.09.126.
49. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Effective buckle arrestors for offshore pipepines." Materials Today: Proceedings, Vol. 27, part 3, pp 2277-2281, 2020, https://doi.org/10.1016/j.matpr.2019.09.112.
50. Muralidhar N., Vadivuchezhian Kaliveeran, Arumugam V. and I. Srinivasula Reddy, "Flexural modulus of epoxy composite reinforced with Arecanut husk fibre (AHF): A mechanics approach." Materials Today: Proceedings, Vol. 27, part 3, pp 2265-2268, 2020, https://doi.org/10.1016/j.matpr.2019.09.109.
51. Murugan N., Vadivuchezhian Kaliveeran, M. K. Nagaraj, "Effect of grooves on the static strength of Tubular T joints of Offshore Jacket structures." Materials Today: Proceedings, Vol. 27, part 3, pp 2541-2545, 2020, https://doi.org/10.1016/j.matpr.2019.10.132.
52. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Analysis and design of inclined buckle arrestors for offshore pipeline." Materials Today: Proceedings, Vol. 27, part 3, pp 2282-2285, 2020, https://doi.org/10.1016/j.matpr.2019.09.113.
53. Ramachandra Rao N., Vadivuchezhian Kaliveeran, "Finite element modeling and experimental validation of rectangular pin buckle arrestors for offshore pipelines." Materials Today: Proceedings, Vol. 27, part 3, pp 2424-2428, 2020, https://doi.org/10.1016/j.matpr.2019.09.207.
54. Palanikumar P., Gnanasekaran N., Subrahmanya K., Vadivuchezhian Kaliveeran, "Identification of Effective

location of Thermocouples from the Contact Interface." Materials Today: Proceedings, Vol. 23, part 3, pp 2811-2814, 2020, https://doi.org/10.1016/j.matpr.2019.12.373.

55. Palanikumar P., Gnanasekaran N., Subrahmanya K., Vadivuchezhian Kaliveeran, "Effect of sliding speed and rise in temperature at the contact interface on coefficient of friction during full sliding of SS304." Materials Today: Proceedings, Vol. 27, part 3, pp 1996-1999, 2020, https://doi.org/10.1016/j.matpr.2019.09.046.
56. Srinivasula Reddy, Vadivuchezhian Kaliveeran, "Dry sliding friction and wear of Al 6061 and Al 6082 alloys under different normal loads." Materials Today: Proceedings, Vol. 27, part 3, pp 2631-2634, 2020, https://doi.org/10.1016/j.matpr.2019.11.080
57. Srinivasula Reddy, Vadivuchezhian Kaliveeran, "Dry sliding friction and wear of Al 6061 and Al 6082 alloys under different normal loads." Materials Today: Proceedings, Vol. 27, part 3, pp 2688-2692, 2020, https://doi.org/10.1016/j.matpr.2019.11.248.
58. Punithraj G., Pruthviraj U., Shetty A. (2020) "Surface Soil Moisture Retrieval Using C-Band Synthetic Aperture Radar (SAR) over Yanco Study Site, Australia—A Preliminary Study". In: Ghosh J., da Silva I. (eds) Applications of Geomatics in Civil Engineering. Lecture Notes in Civil Engineering, Vol 33. Springer, Singapore. DOI: https://doi.org/10.1007/978-981-13-7067-0_8
59. Punithraj Gururaj, Pruthviraj Umesh, Amba Shetty, "Assessment of spatial variation of soil moisture during maize growth cycle using SAR observations," Proc. SPIE 11149, Remote Sensing for Agriculture, Ecosystems, and Hydrology XXI, 1114916 (21 October 2019); DOI: 10.1117/12.2532953
60. Assessment of Burn Severity using Different Fire Indices: A Case Study of Bandipur National Park P Konkathi, A Shetty - 2019 IEEE Recent Advances in Geoscience and 2019
61. P Konkathi, A Shetty, V Kolluru, PH Yathish , Pruthviraj U Static Fire Risk Index for the Forest Resources of Karnataka - IGARSS 2019-2019, IEEE International Geoscience 2019.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Shwetha Karanth and Regupathi, I. , Screening of mixed surfactants based reverse micellar system for Lactoperoxidase extraction from whey, ICEF13 - International Congress on Engineering and Food; held on 22-26 September 2019 in Melbourne, Australia.
2. Shwetha Karanth and Regupathi, I. , Stability analysis of bovine Lactoperoxidase in the presence of additives, International Conference on Advances in Medical and Industrial Biotechnology (ICAMIB 2019) held at Sathyabama Institute of Science and Technology (Deemed to be University), Chennai, India, during 20th to 22nd March, 2019
3. C. Sankar Rao, Simi Santosh and Dhnya Ram V, Tuning optimal PID controllers for open loop unstable first order plus time delay systems by minimizing ITAE criterion, 6th International Conference on Advances in Control and Optimization of Dynamical Systems, IIT Madras, Feb 2020.
4. Sanjith S. Anchan and C. Sankar Rao, Design of decoupler for wastewater treatment plant, CHEMCON 2019, IIT Delhi, 16-19 December 2019.
5. G. Uday Kiran and C. Sankar Rao, Tuning of centralized controller for industrial scale polymerization reactor, CHEMCON 2019, IIT Delhi, 16-19 December 2019.
6. Gourav Yadav and C. Sankar Rao, Design of a centralized PI controller for a non-square system with application to reverse osmosis process, CHEMCON 2019, IIT Delhi, 16-19 December 2019.
7. Abhishek, Indra Neel Pulidindi, C. Sankar Rao, Supported hydropoly acid for the production of fermentable

sugar from cellulosic biomass, International conference on multifunctional and hybrid composite materials for energy, environment and medical applications, NIT Trichy, 9-11 September, 2019.

8. Sanjith S. Anchan and C. Sankar Rao, Simulation and Control of a Biological Wastewater Treatment Process, International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2019), N.M.A.M.I.T., Nitte, Mangalore (May 23 – 24).
9. Irfana Shajahan, Michelle Amin, Jessina Cherry, Ashish Kumar and Hari Prasad Dasari "Sintering Mechanism For The Early Stage Sintering Of Praseodymium Doped Ceria", EIHE–2020 organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) at DAE Convention centre, Anushaktinagar, Mumbai- during January 21-25, 2020 (Won young scholar award)
10. Raksha Rao, Keerthana Kamath, Irfana Shajahan, Priyanka R and Hariprasad Dasari "Synthesis of Praseodymium Doped Ceria based electrolyte material by Hydrothermal Method", The 11 International Exergy, Energy and Environment Symposium (IEEES-11) at SRM Institute of Science & Technology, Chennai, India, 14 - 18 July 2019(Won best paper award)
11. Ritu Raval, A Varma, Keyur Raval, " A sustainable bioprocess for lipase production using seawater and the byproduct obtained from coconut oil industries", NUiCONE 2019, Nirma University, Ahmedabad, 21-22 November 2019
12. Manasa M, Pranay R Chandewar and Hari Mahalingam, "Photocatalytic degradation
of ciprofloxacin and norfloxacin under solar light using boron doped titanium dioxide
catalysts synthesized by green EDTA-citrate method", Proceedings of APCAT-8, Bangkok, Thailand, August 4-7, 2019, pp. 296.
13. Raj Mohan Balakrishnan, Ganga Gamana, Xuan-Thanh Bui, Hong-Hai Nguyen (2019) "Cobalt Ferrite Nanoparticles and Peroxymonosulfate System for the effective Removal of Ampicillin from Aqueous Solution" December 1 – 5, 2019, GTSW2019 conference, Ho Chi Minh City, Vietnam.
14. Raj Mohan Balakrishnan, (2019) "Cobalt Ferrite Nanoparticles and Peroxymonosulfate System for the effective Removal of Ampicillin from Aqueous Solution" December 1 – 5, 2019, GTSW2019 conference, Ho Chi Minh City, Vietnam.
15. Thara Rathana, P.E. JagadeeshBabu*, Raj Mohan Balakrishnan Visible Light Photocatalytic Degradation of Hexavalent Chromium using TiO2-WO3 Photocatalyst" December 1 – 5, 2019, GTSW2019 conference, Ho Chi Minh City, Vietnam.
16. Vishnu Manirethana, Keyur Ravala, Raj Mohan Balakrishnan*, Himanshu Ojha (2019) "Static and dynamic studies on the removal of heavy metals using biosynthesised melanin impregnated activated carbon". December 1 – 5, 2019, GTSW2019 conference, Ho Chi Minh City, Vietnam.
17. Akshaya Jagannath, Vidya Shetty K, M.B Saidutta, Minimol M, Pulsed plate bioreactor for bioleaching of Fe and Zn by Acinetobacter sp. Cr B2 from printed circuit boards,Proceedings of International Conference on Affordable Startegies for Health and Environment (ASHE 19) held at NMAMIT during May 23-24 2019.Paper ID AE-9 49.
18. Veni Ramachandran Nair, Vidya Shetty K, Floating bed reactor for visible light induced photocatalytic degradation of Acid Yellow 17 using Polyaniline-TiO2 nanocomposites immobilized on polystyrene cubes . Proceedings of International Conference on Affordable Startegies for Health and Environment (ASHE 19) held at NMAMIT during May 23-24 2019.Paper ID AE-7 50.
19. Deekshitha and Shetty K.V, "Greener and environment friendly process of synthesis of Ag-TiO2 nanocomposite for Reactive Blue 220 removal from dye contaminated water." Proceedings of

National Conference on Environmental Pollution Prevention and Control: Future Perspective, organised by Department of Chemical Engineering, NITK, Surathkal, 23rd-25th August 2019, Paper I'd : EPPC-FP43.

20. Shankramma Kalikeri and Vidya Shetty Kodialbail, "Auto combustion synthesis of Narrow bandgap bismuth ferrite nanoparticles for solar photocatalysis to remediate azo dye containing water." Participated and presented a paper at National Symposium on Environmental Pollution Prevention and Control: Future perspective (EPPC: FP.:2019) to be held during 23-25 August 2019 at NITK Surathkal. Paper ID: EPPC-FP46.p-64

21. Hemant Kumar ,Vidya Shetty K , Catalytic Activity of Silver Nanoparticles Synthesized using *Tectona Grandis. Linn F.* Leaf Extract in the Reduction of 4-Nitrophenol, Proceedings of Asia Pacific Conference on Nano-Micromaterials for Circular economy and Sustainability held during 29 Aug 2019 - 01 Sep 2019 at National University of Singapore organized by NUS Singapore, UCF USA and National Science Foundation.

22. Preethi, Shashi Bhushan Arya, Vidya Shetty K, Microbial induced corrosion behaviour of multilayer nanocomposite coatings for the marine applications. Proceedings of CORCON 2019 held at Jaipur during 23-26 September 2019. Adjudged as Best Paper of the symposium "Material and Composites"

23. Sushama Agarwallaa , Vidya SheŠy K.,Biosynthesis of Cu based nanoparticles by using the cell-free culture broth of Alcaligens aqatilis and their photocatalytic applications, Proceedings of International Conference on Emerging trends in Catalysis , held on 6-8 January 2020 organized by School of Advanced Science, Vellore Institute of Technology,Vellore and Royal Society of Chemistry Paper ID : OP027 e-ISBN Number 978-93-89640-17-5

24. Shankramma Kalikeri and Vidya Shetty Kodialbail, "Nanocrystalline bismuth ferrite nanoparticles for solar light driven degradation of azo dye contaminated water: comparison with artificial visible light". Proceedings of Second International Conference on Advanced Materials & Technology (ICMAT-20). Organized by Sri Jayachamarajendra College of Engineering, JSS Science and Technology University, Mysuru - 570 006, India. 16th to 18th January 2020. Paper ID ICMATP-21, p-45.

25. Shankramma Kalikeri and Vidya Shetty Kodialbail, "Effect of narrow band gap bismuth ferrite nanoparticles on the Photocatalytic degradation of azo dye in Aqueous Solution Under solar light irradiation". Proceedings of KAST Sponsored International Conference on Physics and Allied science (ICPAS-2020). Organized by Bhoomareddy college of arts, science and commerce Bidar, Karnataka, India. 11-13, March 2020. Paper ID ICPAS-34,p-51.

26. S. Gangamma, D. Sampada, Panigrahi Manisha, R. Kamali Vishaalini, Veekshitha and S.K. Varghese (2020) Measurement and characterization of airborne biological particles from Delhi city. European Aerosol Conference (EAC-2020), Aachen, Germany

DEPARTMENT OF CIVIL ENGINEERING:

1. Sarath Chandra Pragada and Arun Kumar Thalla (2019) "Dynamic simulation and sensitivity analysis of aerobic hybrid biofilm system" The 2nd Green Technologies for Sustainable Water 2019 Conference (GTSW 2019), Ho Chi Minh City, Vietnam [December 1-5, 2019]
2. Adhirashree Vannarath, Arun Kumar Thalla (2019) "Bifurcation of lignocellulosic biomass (Areca catechu) using alkaline pretreatment: An efficient method"7th International Conference on Sustainable Solid Waste Management, Crete Island, Greece [June 2019]

3. Kondababu K, Arpitha, D. and Rajasekaran C., (2020) Durability Studies on Concrete Containing Processed Granulated Blast Furnace Slag (PGBS) as a Partial Replacement of River Sand, *Proc. of Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies".* Kolkata. [March 2020]
4. Vinod A Soudi, Arpitha, D. and Rajasekaran C., (2020) Study of copper slag in cement mortar as alternate fine aggregate, *Proc. of ITCSD2020,* NITTTR Chandigarh. [Feb 2020].
5. Resmy V.R., and Rajasekaran C**.** (2020) Topology Optimization of Concrete Dapped Beams Under Multiple Constraints.International Conference on Numerical Optimization in Engineering and Sciences (NOIEAS) 2019, NIT Warangal [July 2020]
6. Harsha M M, Raviraj H. Mulangi, Dinesh Kumar H.D, Kishore Kumar M. G (2020),"Evaluation of Congestion on Urban Roads using Public Transit GPS Data",Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" held at Kolkata during March 02-04, 2020.
7. Panditharadhya B J, Raviraj H Mulangi and A U Ravi Shankar (2020),"Durability Studies on Concrete produced with Processed Iron Slag as Fine Aggregate",Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE) " held at Kolkata during March 02-04, 2020.
8. B. J. Panditharadhya;Raviraj H. Mulangi;A. U. Ravi Shankar; andS. Amulya (2020),"Performance of Concrete Mix with Secondary Aluminium Dross as a Partial Replacement for Portland Pozzolana Cement", held at International Airfield and Highway Pavements Conference 2019, held at Chicago, Illinois, USA on 21 – 24 July, 2019.
9. Anjali M. S., Shrihari, S. and Sunil, B. M. (2019). "Use of Ferrous Slag as a media for the Removal of Water Pollutants." International Conference (TMSF-2019) at Don Bosco College of Engineering, Fatorda, Goa, India, Page 30, (October 31- November 1) 2019.
10. Hemalatha K., Anjali M. S. and Shrihari, S. (2019). "The use of blast furnace slag for the removal of iron from water." International Conference (TMSF-2019) at Don Bosco College of Engineering, Fatorda, Goa, India, Page 29, (October 31- November 1) 2019.16)
11. Berhe, K.T., Sunil B.M., and S. Shrihari (2020). Challenges of Eco-friendly Solid Waste Disposal in Ethiopia: The Case of Hawassa Industrial Park. Proceedings of the Geoenvironmet-2020 Conference, February 17–21, 2020 (pp. 228–234). New Delhi, IN: Network of Experts and Resources for Subsurface Investigations and Remediation of Contaminated Sites (NERCS).
12. Berhe, K.T., Sunil B.M., andS. Shrihari (2020). Ecohydrological based Industrial Wastewater Treatment: The case of Cheleleka wetland system in Ethiopia. Proceedings of Peer-reviewed Abstracts the ASCE India Conference, March 2-4, 2020 (pp. 165–166).
13. Sheeka Subramani B, S Shrihari, B Manu and K S Babu Narayan (2020) "Usage potential of arecahusk as adsorbent in Water treatment, 3rd International Conference on Waste Management RECYCLE 2020, February 13-14, 2020, IIT Guwahati, India, pp.77.
14. Radhika M. Patel, B. R. Jayalekshmi and R. Shivashankar (2019), 'A study on the seismic Behaviour of Embankments with Pile Supports and Basal Geogrid", International Association for Computer Methods and Advances in Geomechanics Symposium 2019 [IACMAG-2019 Symposium], March 5-7, 2019 in Gandhinagar, India [Paper accepted 29 Dec. 2018]

15. Patel, Radhika M; Jayalekshmi, B.R. and Shivashankar, R. (2019), "Seismic Response of Basal Geogrid Reinforced Embankments supported over floating and End Bearing Piles", 7th International Conference on Earthquake Geotechnical Engineering [7-ICEGE], Rome, Italy, 17-20 June 2019; Organized by the Italian Geotechnical Society (AGI) under the auspices of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) {Paper ID 667}, pp.4620-4628.
16. S. Anaswara, R. Shivashankar (2019), "Study of tilt on adjacent strip footings" International conference on Advanced Research and Innovations in Civil Engineering 2019 (ARICE-19), organized by Muthoot Institute of Technology and Science, Kerala, 13-14 June 2019.
17. R. Shivashankar and Biji Chinnamma Thomas (2019) "Dealing with Lateritic soils: An Indian Perspective" AIT Geotechnical Symposium, Philippines Society for Soil Mechanics and Geotechnical Engineering {PSSMGE}, & Institute of Civil Engineering, University of Philippines, Diliman, August 12-13, 2019.
18. S. Anaswara and R. Shivashankar (2019), Interference study between a retaining wall and a closely built strip footing", 8th International Engineering Symposium IES 2019, Kumamoto, Japan.
19. S. Anaswara and R. Shivashankar (2019), " A numerical study on interference effects of closely spaced strip footings on cohesionless soils", International conference on trending moments and steer forces – civil engineering today (TMSF – 2019, Goa, India).
20. Biji Chinnamma Thomas and R. Shivashankar (2019), "Study of Critical Shear Stresses of Soils for Progressive Erosion" International conference on trending moments and steer forces – civil engineering today (TMSF – 2019, Goa, India).
21. Amrita, B R Jayalekshmi, R Shivashankar "Seismic Behaviour of Soil Nailed Wall" International conference on trending moments and steer forces – civil engineering today (TMSF – 2019, Goa, India).
22. Radhika. M. Patel, B. R. Jayalekshmi and R. Shivashankar (2020) – 'Seismic Response of Basal Geogrid Reinforced Embankments Supported on a Group of Vertical and Batter Piles', 7th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (ICRAGEE 2020), 13-16 July 2020, IISc Bangalore, India, Paper id 032
23. Amrita, Jayalekshmi, B. R. and Shivashankar, R. "Dynamic Response of Soil Nailed Wall', 7th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (ICRAGEE-2020), 13-16 July, *2020*, IISc Bangalore, Paper id 065
24. Anjana S Rao, Jayalekshmi B R and Venkataramana K (2019): "Seismic response of berthing structures with soil-structure interaction", Proc. of 24th Hydro, International Conference held at Osamania University Hyderabad during December 18-20, 2019, pp.466-475.
25. Sharika R and Venkataramana K (2019):"Effectiveness of Base Isolation using Single Friction Pendulum in Plan Irregular Structures", *Proc. of International Conference on Civil Engineering Trends and Challenges for Sustainability*, (CTCS 2019), held at NMAMIT, Nitte, Karkala, during May 23-24, 2019.
26. Vincle Mable Vas, Prajwal Nagaraja and Venkataramana K (2019):"Effect of diaphragm discontinuity on the seismic response of RC building", *Proc. of International Conference on Civil Engineering Trends and Challenges for Sustainability, (CTCS 2019),* held at NMAMIT, Nitte, Karkala, during May 23-24, 2019.
27. Manjunath R and Narasimhan, M.C. (2019). "High strength flowable alkali activated slag concrete mixes produced using industrial wastes". First International Conference on Materials Science and Manufacturing

Technology, Coimbatore, April 12-13.th,
28. ManjunathRand Narasimhan, M.C. (2019). “Effect of addition of OPC on the performance characteristics of self–compacting alkali activated slag concrete mixes”. First International Conference on Materials Science and Manufacturing Technology, Coimbatore, April 12-13.
29. Manjunath R, Narasimhan, M.C., and Prakash , U. (2019). “Performance evaluation of deep beams using self-compacting concrete mixes”. International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2019), Karkala, India, May 23-24 (Best Paper Award)
30. Manjunath R., Narasimhan, M.C., and Nambiar, C.B. (2019). “Performance evaluation of deep beams using self-compacting concrete subjected to corrosion”. International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2019), Karkala, India, May 23-24.
31. Manjunath,R., Narasimhan, M.C., and Janagam. (2019). “Performance evaluation of steel fiber reinforced deep beams using self-compacting concrete”. International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2019), Karkala, India May 23-24.
32. Manjunath, R., Narasimhan, M.C., Shashanka, M., Vijayanand, S.D.,and Vinayaka, J. (2019). “Experimental studies on shear strength characteristics of alkali activated slag concrete mixes”. I International Conference on Recent Advances in Materials and Manufacturing (ICRAMM), Belagavi, India, Sep 12 – 14.
33. Bhaskar S, Basavaraju Manu and Sreenivasa M Y, “Green synthesis of Bioleached Laterite Iron Nanoparticles (GBLFeNP) using Azadirachta indica leaves and evaluation of its catalytic role in Fenton’s oxidation of dicamba”, CE Asia Pacific conference, NUS Singapore, August 28-September 01, 2019
34. Basavaraju Manu and Varghese PP,” Removal Of Endosulfan From Water By Fenton's Oxidation”, IWA WDCE 2019, 1-5 December 2019, BMICH, Colombo, Srilanka.

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

1. Patil, P., Aparna, R., Chandrasekaran, K. “Towards a Domain Specific Modeling Tool for Home Automation Systems” 2020 6th International Conference on Advanced Computing and Communication Systems, ICACCS 2020, pp. 242-247 (2020)
2. Deepak, K., Chandrasekaran, K.”Investigating Elliptic Curve Cryptography for Securing Smart Grid Environments” ISEA-ISAP 2020 - Proceedings of the 3rd ISEA International Conference on Security and Privacy 2020, pp. 1-7, (2020)
3. Raghavan, S., Bhagtya, P., Chandrasekaran, K. “Singlow: Simulator for General Network Flow Problems” 2020 International Conference on Innovative Trends in Information Technology, ICITIIT 2020, (2020)
4. Jain, M., Singh, S., Chandrasekaran, K., Rathnamma, M.V., Venkata Ramana, V. “Machine Learning Models with Optimization for Clothing Recommendation from Personal Wardrobe” Proceedings of 3rd International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things, ICETCE 2020, pp. 12-17. (2020)
5. Debbarma, T., Chandrasekaran, K.” Middleware Frameworks for Mobile Cloud Computing, Internet of Things and Cloud of Things: A Review” Advances in Intelligent Systems and Computing, 1097, pp. 37-50. (2020)
6. Debbarma, T., Chandrasekaran, K. “A review on mobile cloud computing interoperability issues and challenges” Lecture Notes in Networks and Systems, 89, pp. 325-333. (2020)
7. Subramanian, N., Mitra, S., Martin, J.P., Chandrasekaran, K. “HTmRPL++: A Trust-Aware RPL Routing Protocol

for Fog Enabled Internet of Things" 2020 International Conference on COMmunication Systems and NETworkS, COMSNETS 2020, pp. 1-5. (2020)
8. Chenna Keshava, B.S., Sumukha, P.K., Chandrasekaran, K., Usha, D. "Role of Activation Functions and Order of Input Sequences in Question Answering" Advances in Intelligent Systems and Computing, 1016, pp. 377-390. (2020)
9. Ramakrishnan, G., Saicharan, V., Chandrasekaran, K., Rathnamma, M.V., Ramana, V.V. "Collaborative Filtering for Book Recommendation System" Advances in Intelligent Systems and Computing, 1057, pp. 325-338. (2020)
10. Prakash, B.S., Sanjeev, K.V., Prakash, R., Chandrasekaran, K., Rathnamma, M.V., Ramana, V.V. "Review of techniques for automatic text summarization" Advances in Intelligent Systems and Computing, 1090, pp. 557-565. (2020)
11. Pandey, A., Bhasi, M., Chandrasekaran, K. " VoteChain: A Blockchain Based E-Voting System" 2019 Global Conference for Advancement in Technology, GCAT 2019, (2019)
12. Joe, K.G., Savit, M., Chandrasekaran, K. " Offline Character recognition on Segmented Handwritten Kannada Characters" Global Conference for Advancement in Technology, GCAT 2019 (2019)
13. Joseph, C.T., Martin, J.P., Chandrasekaran, K., Kandasamy, A. "Fuzzy Reinforcement Learning based Microservice Allocation in Cloud Computing Environments" IEEE Region 10 Annual International Conference, Proceedings / TENCON, 2019-October, pp. 1559-1563. (2019)
14. Naik, C., Siddhartha, M., Martin, J.P., Chandrasekaran, K."Location Privacy Using Data Obfuscation in Fog Computing "IEEE Region 10 Annual International Conference, Proceedings/TENCON, 2019-October, pp. 1286-1291. (2019)
15. Bhagtya, P., Tilwe, V., Chandrasekaran, K. "Clique Displacement: A New Layout Technique" 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 – Proceedings (2019)
16. Ajumal, P.A., Ananthakrishnan, S., Jain, A., Athreya, H.N., Chandrasekaran, K. "A Framework to Study Heuristic TSP Algorithms with Google Maps API" 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 (2019)
17. Rashmi, R., Siva Kumar, D.V.N., Santhi Thilagam, P. "Privacy-preserving searchable encryption scheme over encrypted data supporting dynamic update", Communications in Computer and Information Science, 969, pp. 24-38. (2019)
18. Pai, M.M.M., Rao, D.S., Annappa, B. "Message from General Chair" 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 – Proceedings (2019)
19. Manjunatha, Annappa, B. "Real time big data analytics in smart city applications" Proceedings of the 2018 International Conference On Communication, Computing and Internet of Things, IC3IoT 2018, pp. 279-284 (2019)
20. Deshmukh, S.S., Annappa, B. "Prediction of crime hot spots using spatiotemporal ordinary kriging" Studies in Computational Intelligence, 771, pp. 683-691(2019)
21. Muhammed, A., Pais, A.R. "A Novel Fingerprint Image Enhancement based on Super Resolution" 2020 6th International Conference on Advanced Computing and Communication Systems, ICACCS 2020, pp. 165-170. (2020)
22. Srujana, O.S., Mhala, N.C., Pais, A.R. "Secure transmission of Hyperspectral Images" ISEA-ISAP 2020 - Proceedings of the 3rd ISEA International Conference on Security and Privacy 2020, pp. 94-99(2020)
23. Kittur, A.S., Kauthale, S., Pais, A.R. " A LDPC codes based Authentication Scheme" ISEA-ISAP 2020 -

Proceedings of the 3rd ISEA International Conference on Security and Privacy 2020, pp. 63-70 (2020)
24. Chittaragi, N.B., Koolagudi, S.G. "Sentence-Based Dialect Identification System Using Extreme Gradient Boosting Algorithm" Advances in Intelligent Systems and Computing, 766, pp. 131-138 (2020)
25. Ramteke, P.B., Hegde, S., Koolagudi, S.G. "Characterization of Consonant Sounds Using Features Related to Place of Articulation" Advances in Intelligent Systems and Computing, 766, pp. 139-145. (2020)
26. Mothukuri, S.K.P., Hegde, P., Chittaragi, N.B., Koolagudi, S.G. "Kannada Dialect Classification using Artificial Neural Networks" 2020 International Conference on Artificial Intelligence and Signal Processing, AISP 2020 (2020)
27. Biswas, R., Murthy, Y.V.S., Koolagudi, S.G., Vishnu, S.G. "Objective Assessment of Pitch Accuracy in Equal-Tempered Vocal Music Using Signal Processing Approaches" Advances in Intelligent Systems and Computing, 766, pp. 161-168(2020)
28. Suma, S.M., Koolagudi, S.G., Ramteke, P.B., Rao, K.S. "Note Transcription from Carnatic Music" Advances in Intelligent Systems and Computing, 766, pp. 123-129. (2020)
29. Mothukuri, S.K.P., Tejas, R., Patil, S., Darshan, V., Koolagudi, S.G. "Efficient Traffic Signboard Recognition System Using Convolutional Networks" Communications in Computer and Information Science, 1209 CCIS, pp. 198-207. (2020)
30. Sankar, R., Nair, A., Abhinav, P., Mothukuri, S.K.P., Koolagudi, S.G. "Image Colorization Using GANs and Perceptual Loss" 2020 International Conference on Artificial Intelligence and Signal Processing, AISP 2020 (2020)
31. Vineeth Reddy, V.B., Ananda Rao, H., Yeshwanth, A., Ramteke, P.B., Koolagudi, S.G. "Estimation of Tyre Pressure from the Characteristics of the Wheel: An Image Processing Approach" Advances in Intelligent Systems and Computing, 766, pp. 3-9, (2020)
32. Pinto, A., Bhasi, M., Bhalekar, D., Hegde, P., Koolagudi, S.G. "A deep learning approach to detect drowsy drivers in real time" 2019 IEEE 16th India Council International Conference, INDICON 2019 – Symposium Proceedings (2019)
33. Vishnu, S.G., Koolagudi, S.G. "An approach for Mridanga stroke transcription in Carnatic music using HGCC" IEEE Region 10 Annual International Conference, Proceedings/TENCON, 2019-October, pp. 2392-2397. (2019)
34. Narayanan, G., Narayanan, R., Haneef, N., Chittaragi, N.B., Koolagudi, S.G. "A Novel Approach to Video Steganography using a 3D Chaotic Map" IEEE Region 10 Annual International Conference, Proceedings/TENCON, 2019-October, pp. 955-959 (2019)
35. Ramteke, P.B., Supanekar, S., Koolagudi, S.G. "Gender Identification using Spectral Features and Glottal Closure Instants (GCIs)" 2019 12th International Conference on Contemporary Computing, IC3 2019 (2019)
36. Rakshith, J., Savasere, S., Ramachandran, A., Akhila, P., Koolagudi, S.G. "Word Sense Disambiguation using Bidirectional LSTM" 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 – Proceedings (2019)
37. Nazareth, P., Chandavarkar, B.R. "Void Avoidance Node Deployment Strategy for Underwater Sensor Networks" Smart Innovation, Systems and Technologies, 141, pp. 493-502. (2020)
38. Kamble, S., Chandavarkar, B.R. "A Survey on Wired, Wireless, and Internet of Things Routing Protocols" 2019 10th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2019 (2019)
39. Verma, R.S., Chandavarkar, B.R., Nazareth, P. "Mitigation of hard-coded credentials related attacks using QR code and secured web service for IoT" 2019 10th International Conference on Computing, Communication and

Networking Technologies, ICCCNT 2019, (2019)
40. Jangid, A., Dubey, P.K., Chandavarkar, B.R. "Security issues and challenges in Healthcare Automated Devices2020 International Conference on COMmunication Systems and NETworkS, COMSNETS" 2020, pp. 19-23(2020)
41. Singh, M.P., Sural, S., Atluri, V., Vaidya, J. "Security analysis of unified access control policies" Communications in Computer and Information Science, 1186 CCIS, pp. 126-146. (2020)
42. Singh, M.P., Sudharsan, S., Vani, M. "ARBAC: Attribute-enabled role based access control model" Communications in Computer and Information Science, 939, pp. 97-111. (2019)
43. Menon, S.N., Vineeth Reddy, V.B., Yeshwanth, A., Anoop, B.N., Rajan, J. "A Novel Deep Learning Approach for the Removal of Speckle Noise from Optical Coherence Tomography Images Using Gated Convolution–Deconvolution Structure" Advances in Intelligent Systems and Computing, 1024, pp. 115-126. (2020)
44. Narendra Rao, T.J., Girish, G.N., Kothari, A.R., Rajan, J. "Deep Learning Based Sub-Retinal Fluid Segmentation in Central Serous Chorioretinopathy Optical Coherence Tomography Scans" Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, pp. 978-981. (2019)
45. Girish, G.N., Saikumar, B., Roychowdhury, S., Kothari, A.R., Rajan, J. "Depthwise Separable Convolutional Neural Network Model for Intra-Retinal Cyst Segmentation" Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, pp. 2027-2031. (2019)
46. Tahiliani, M.P., Misra, V., Ramakrishnan, K.K. "A principled look at the utility of feedback in congestion control" ACM International Conference Proceeding Series (2019)
47. Pandey, A., Anand, T., Shah, M., Tahiliani, M.P. "Adaptive RED for FreeBSD: Design, Implementation and Challenges" IEEE Region 10 Annual International Conference, Proceedings/TENCON, 2019-October, pp. 2340-2344. (2019)
48. Ramakrishnan, G., Bhasi, M., Saicharan, V., Monis, L., Patil, S.D., Tahiliani, M.P. "FQ-PIE Queue Discipline in the Linux Kernel: Design, Implementation and Challenges" Proceedings - 2019 IEEE 44th Local Computer Networks Symposium on Emerging Topics in Networking, LCN Symposium 2019, pp. 117-124. (2019)
49. Adrah, C.M., Kamath, A.K., Bjornstad, S., Tahiliani, M.P. "Achieving Guaranteed Performance for Protection Traffic in Smart Grid Wide-Area Networks" Proceedings of 2019 the 7th International Conference on Smart Energy Grid Engineering, SEGE 2019, pp. 42-47. (2019)
50. Bakshi, S., Sahoo, A.P., Keerthana, P., Bhalekar, D., Tahiliani, M.P. "Linux-like Loss Detection Techniques for ns-3 TCP" 2019 IEEE International Conference on Electronics, Computing and Communication Technologies, CONECCT 2019 (2019)
51. Palmei, J., Gupta, S., Imputato, P., Morton, J., Tahiliani, M.P., Avallone, S., Taht, D. "Design and evaluation of COBALT queue discipline" IEEE Workshop on Local and Metropolitan Area Networks, 2019-July, (2019)
52. Bakshi, S., Tahiliani, M.P. "Recent acknowledgement support for ns-3 TCP" ACM International Conference Proceeding Series, pp. 9-16(2019)
53. Patel, H., Hiraskar, H., Tahiliani, M.P. "Extending network emulation support in ns-3 using DPDK" ACM International Conference Proceeding Series, pp. 17-24(2019)
54. Kumar, A., Talawar, B. "UPM-NoC: Learning based framework to predict performance parameters of mesh architecture in on-chip networks" Lecture Notes in Electrical Engineering, 607, pp. 723-733. (2020)
55. Halavar, B., Talawar, B. "OP3DBFT: A power and performance optimal 3D BFT NoC architecture" Advances in Intelligent Systems and Computing, 940, pp. 923-933. (2020)
56. Kumar, A., Talawar, B. "A Support Vector Regression-Based Approach to

Predict the Performance of 2D 3D On-Chip Communication Architectures" Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019, pp. 35-39 (2019)

57. Kumar, A., Talawar, B. "Accurate Router Level Estimation of Network-on-Chip Architectures using Learning Algorithms" Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019, pp. 746-751(2019)
58. Yelmewad, P., Kumar, A., Talawar, B. "MMAS on GPU for Large TSP Instances" 2019 10th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2019, (2019)
59. Gupta, P., Venkatesan, M. "Mineral identification using unsupervised classification from hyperspectral data" Advances in Intelligent Systems and Computing, 1054, pp. 259-268(2020)
60. Srivastava, A.R., Venkatesan, M. "Tea leaf disease prediction using texture-based image processing" Advances in Intelligent Systems and Computing, 1054, pp. 17-25. (2020)
61. Valaboju, S., Venkatesan, M. "An efficient image retrieval system for remote sensing images using deep hashing network" Advances in Intelligent Systems and Computing, 1054, pp. 11-16(2020)
62. Mohan, A., Venkatesan, M. "Spatial data-based prediction models for crop yield analysis: A systematic review" Advances in Intelligent Systems and Computing, 1054, pp. 341-352(2020)
63. Venkatesan, M., Prabhavathy, P. "Graph based Unsupervised Learning Methods for Edge and Node Anomaly Detection in Social Network" 2019 IEEE 1st International Conference on Energy, Systems and Information Processing, ICESIP 2019(2019)

DEPARTMENT OF CHEMISTRY

1. Vinod, Nivedha; Tiwari, Ritesh; Bhat, Navya S.; Mal, Sib S. and Dutta, Saikat, "High-yielding synthesis of alkyl stearates from stearic acid within a closed batch reactor using heteropolyacids as efficient and recyclable catalyst", AIP Conference, 2225, 070004, March 2020.
2. Badekai Ramachandra Bhat and Praveen Mishra (2019), "Understanding Photoactivity of Graphene Quantum Dots for use as Sensitizer in Photovoltaic Devices" 6th International conference of Indian Council of Chemists at Hotel Novotel Wellness and Spa Roissy (Paris) Courtyard by Marriot-Avenue des Olympiades (Brussels) June 6-8, 2019. Page:4-5.

DEPARTMENT OF ELECTRONICS AND COMMUNICAION ENGINEERING

1. Hanumantha Rao G., Sreenivasulu P., Rekha S., M. S. Bhat, "Ultra Low-voltage, Low-power Fourth-order Butterworth LPF for ECG Signal Processing", 2nd International Conference on VLSI Device, Circuit and System (VLSI-DCS 2020), Kolkata, India, March 21-22, 2020.
2. Geriki Polaiah, Krishnamoorthy K and Muralidhar Kulkarni, "Gain Enhanced Dual-Band Differential Fractal Slot Antenna for RF Energy Harvesting Applications", Proceedings of the 2020 URSI Regional Conference on Radio Science (URSI-RCRS 2020), 12-14 February, 2020, IIT (BHU) Varanasi, India.
3. **S**hyam Lal, Anirudh Kanfade, Kumar Alabhya, Russel Dsouza, Aman Kumar, Amit Kumar Chanchal, Maneesh M, Gokul Peryail, Jyoti Kini, "A Robust Method for Nuclei Segmentation of H&E Stained Histopathology Images", 7th IEEE International Conference on Signal Processing and Integrated Networks (SPIN2020), Amity University, Delhi NCR, Noida, UP., February 27-28, 2020.
4. Geriki Polaiah, Krishnamoorthy K and Muralidhar Kulkarni, "A Dual-Band Modified Quadrilateral Square Slotted Rectenna for RF Energy Harvesting" , Proceedings of the International Conference on Modelling Simulation

and Intelligent Computing (MoSiCom 2020), Dubai, Jan.29-31, 2020.

5. Lakshmi, Aparna P., "Efficient architectures for planar and DC modes of intra prediction in HEVC", 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020, 27-28 February 2020, Pages 148-153.
6. M. Ajay Babu, K. Krishnamoorthy and A.V. Narasimhadhan, "A High Gain Zero Index Metamaterial for Radome Applications", IEEE Connect, 2020.
7. Deepa C, Amba Shetty, A V Narasimhadhan, "Quality Assessment of Dimensionatly Reduction Techniques on Hyperspectral Data: A Neural Network based Approach", ISPRS, 2020.
8. C Akshay Kumar, Mahesh Kumar T N and A V Narasimhadhan, "Cell Segmentation by Modified U-Net Architecture for Biomedical Images", IEEE Connect,2020.
9. Lakshmi S., Deepu Vijayasenan**,** Sumam David S., Saraswathy Sreeram and Pooja K S "An Integrated Deep Learning Approach towards Automatic Evaluation of Ki-67 Labeling Index", in*TENCON 2019 - 2019 IEEE Region 10 Conference*. IEEE, 2019.
10. Avinash D Jayakar, Gautham Sambath, Anu Shaju Areeckal, Sumam David S., "*Cortical Volumetry using 3D reconstruction of metacarpal bone from multi-view images"***,** IEEE International Conference on Recent Advances in Computational Systems (RAICS), Thiruvananthapuram, pp. 79-83, December 2019.
11. Naveen Jacob, Krishnamoorthy K, Muralidhar Kulkarni, "Omega Shaped Complementary Split Ring Resonator Loaded Bandwidth Reconfigurable Antenna for Cognitive Radio Applications", Proceedings of the Symposium on Recent Advances in Communication Theory Information Theory Antennas and Propagation (CIAP'19) co-affiliated with CoCoNet"19, Trivandrum, Kerala, India, Dec.18-21, 2019.
12. Deepa Puneeth and Muralidhar Kulkarni, "Data Aggregation using Distributive Compressive Sensing in WSNs", Proceedings of the Fifth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS"19), Trivandrum, Kerala, India, Dec.18-21, 2019.
13. Deepa Puneeth and Muralidhar Kulkarni, "Data Aggregation using Compressive Sensing for Energy Efficient Routing Strategy", Proceedings of the Third International Conference on Computing and Network Communications (CoCoNet"19), Trivandrum, Kerala, India, Dec.18-21, 2019.
14. Geriki Polaiah, Krishnamoorthy. K, Muralidhar Kulkarni, "A Compact Dual-Band Rectenna for RF Energy Harvesting", Proceedings of the Indian Conference on Antennas and Propagation 2019, Narayanai Height, Gandhinagar, Gujarat, India from December 19-22, 2019.
15. Bonthala, S., Uppoor, Y., Nayak, A., Polineni, S., Bhat, M.S., "Design of High Resolution Delta Sigma Modulator in 180 nm CMOS technology", Proceedings of the International Symposium on Embedded Computing and System Design, ISED 2019, 14 December, 2019 9096220, pp. 78-83.
16. Anuradha Patil, Mansoor Muhammed, Hanumantha G. Rao and Rekha S**.**, "Low power log-domain Filter", 16th IEEE India Council International Conference (INDICON 2019), Marwadi Univ., Rajkot, 13-15 December 2019.
17. Kumar P, Ashvini Chaturvedi, "Evaluation of Energy Efficient Clustering Algorithms (E^2CA) for Query Based WSNs", International Conference on Computational Intelligence and Knowledge Economy, ICCIKE 2019; Amity University Dubai, United Arab Emirates; 11-12, December 2019.
18. Rekha, S., Reshma, B., Dilipkumar, N.P., Crocier, A.A.and Mohankumar, N., "Logically Locked I2C Protocol for Improved Security", International Conference on Communication, Computing and Electronics Systems, ICCCES 2019; Coimbatore; India; 15-16 November 2019.
19. Kalpana G. Bhat, Laxminidhi, T., Bhat, M.S., "A Compact 10-bit Nonbinary Weighted Switched Capacitor

Integrator Based SAR ADC Architecture", Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics, 11 November 2019, ,8950727, pp. 1-4.

20. Abhishek M.B., N S V Shet, "Data Processing and deploying missing data algorithms to handle missing data in real time data of storage tank: A Cyber Physical Perspective", IEEE International Conference on Electrical, Control and Instrumentation Engineering, ICECIE 2019; Kuala Lumpur; Malaysia; 25 November 2019.
21. Mohita Chowdhury, Hansal Shah, Theekshna Kotian, N. Subbalakshmi, Sumam David S., "*Copy-Move forgery detection using SIFT and GLCM based texture analysis"*, IEEE TENCON 2019, Kochi, pp. 958-962, October 2019.
22. Hanumantha Rao G., Muhammed Mansoor C. B. and Rekha S., "A 0.8 V, 5 nA PTAT current reference circuit with improved supply voltage sensitivity", IEEE sponsored Global Conference for advancement in Technology (GCAT 2019), 18-20 October 2019.
23. Muhammed Mansoor C. B. and Rekha S., "Low power active-RC filter for ECG detection", IEEE sponsored Global Conference for advancement in Technology (GCAT 2019), 18-20 October 2019.
24. Mamidala, R.S., Uthkota, U., Shankar, M.B., Antony, A.J., Narasimhadhan, A.V., Dynamic Approach for Lane Detection using Google Street View and CNN, IEEE Region 10 Annual International Conference, Proceedings TENCON, Volume 2019-October, October 2019, Article number 8929655, Pages 2454-2459, 17-20 October 2019.
25. Nayak, A., Bonthala, S., Uppoor, Y., Bhat, M.S., "Design of High Gain Operational Transconductance Amplifiers in 180 nm CMOS technology", IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2019 - Proceedings, 11 August 2019, 9007949.
26. Y. P. Yeshwanth, T. P. Vara Prasad, Vivek Mudadla, Pavan and Rekha S., "Ultra low voltage, low power active-RC filter in 90 nm CMOS technology", IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER) 2019, MIT, Manipal, 11-12 August, 2019 - won the Best Paper Award.
27. Kalluri Shareef B., Deepu Vijayasenan and Ganapathy S., "A Deep Neural Network Based End to End Model for Joint Height and Age Estimation from Short Duration Speech", 44th IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019; Brighton Conference Centre Brighton; United Kingdom; 12-17 May 2019.
28. Ashish Patil, Deeksha M, N. Shekar V. Shet, Muralidhar Kulkarni, "Transmit Data Rate Control based Decentralized Congestion Control Mechanism for VANETs", Proceedings of the 2019 International Conference (Icon DSC '19 , IEEE ComSoc, Bangalore Chapter) on Data Science & Communications, Icon DSC,2019.
29. Lwaa Faisal Abdulameer,Jokhakar Jignesh,Udupi Sripati, Muralidhar Kulkarni, "Hybrid LDPC-STBC Communications System based on Chaos", Proceedings of the 2019 International Conference of Information and Communication Technology (ICICT, 2019).
30. Naveen Jacob, Krishnamoorthy K, Muralidhar Kulkarni, "A Compact Frequency Reconfigurable Antenna for Cognitive Radio Applications", Proceedings of the 8th International Engineering Symposium (IES2019) , March 13-15, 2019 at Kumamoto University, Japan.
31. Shivaraj B. Hublikar, Apurva P, Muralidhar Kulkarni, "Prevention of DoS/DDoS attacks in Traditional Network by migrating it to Software Defined Network", 8th International Engineering Symposium - IES 2019, March 13-15, 2019, Kumamoto University, Japan.
32. Prashant Kharat, Shantanu Vijay, Jayanth Putta, Apurva P. and Muralidhar Kulkarni, "ModQUIC Performance Analysis with Dynamic Packet Fragmentation in Wireless Networks", Proceedings of the 8th

International Engineering Symposium (IES 2019), March 13-15, 2019 at Kumamoto University, Japan.
33. Geriki Polaiah, Krishnamoorthy K, Muralidhar Kulkarni "Design of Quatrefoil Shape Antennas for GSM1800 MHz and UMTS2.1 GHz Rectenna Applications" Proceedings of the 2019 The International Union of Radio Science (URSI), Asia Pacific Radio Science Conference (AP RA-SC) to be held at the India Habitat Center New Delhi held during March 09 – 15, 2019.
34. Vignesh R, Pradeep Gorre, Sandeep kumar, Hanjung Song "A 28-32GHz CMOS LNA with Broadband Approach For 5G mm-wave Communication cells"Asia Pacific Microwave Conference (APMC), Marina Bay, Singapore 2019.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. M. Joshua and K. P. Vittal "Transient behavioral modelling of Battery Energy Storage System supporting Microgrid" 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, India, 2020, 2-4 Jan. 2020, pp. 1-6, https://doi.org/10.1109/PESGRE45664.2020.9070389
2. Divyaraj Zala, Krishna Rao & K. N. Shubhanga "Modal Analysis of Multi-Machine Power System for Load Perturbation" International Conference of Power Systems (ICPS) 2019, MNIT, Jaipur, 20-22 December 2019,https://doi.org/10.1109/ICPS48983.2019.9067542
3. Mir Khadim Aalam & K.N. Shubhanga "Synchrophasor Measurement Standard Comparison and Testing of an FF-based PMU",Industry 4.0 Technology (14Tech2020)"Vishwakarma Institute of Technology, Pune, India, 13-15th Feb 2020, https://doi.org/10.1109/I4Tech48345.2020.9102672
4. K Y Prasad &Gururaj S Punekar "Electric Fields due to A 500 kV Quadruple Circuit Transmission: Some Aspects Concerning Public Exposure" 2019 4th International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT),13-14th Dec 2019,https://doi.org/10.1109/ICEECCOT46775.2019.9114550
5. Navami S Prabhu, Roopa Viswadev, B. V. Perumal & Sukumar Mishra "A Transformerless Photovoltaic Micro inverter using High-gain Z-source Boost Converter for Single-phase Grid connected Applications" IEEE International Conference on Power Electronics Smart Grid and Renewable Energy (IEEE PESGRE 2020) Hotel Le Meridian, Cochin, Kerala, India, 2nd-4th Jan 2020, https://doi.org/10.1109/PESGRE45664.2020.9070677
6. Deepak P , Roopa Viswadev , B. Venkatesaperumal & Arjun M "A Novel Bi-Directional Converter for Electric Vehicle to Grid Applications" IEEE International Conference on Power Electronics Smart Grid and Renewable Energy (IEEE PESGRE 2020) Hotel Le Meridian, Cochin, Kerala, India, 2nd-4th Jan 2020, https://doi.org/10.1109/PESGRE45664.2020.9070435.
7. Niloy Dutta & Venkatesa Perumal "Theoretical Increase in Power Output of Si-Based Photo-Voltaic Cell by Series Connected Metallic Photocathodes" 2019 IEEE 2nd International Conference on Power and Energy Applications (ICPEA), 27-30 April 2019,https://doi.org/10.1109/ICPEA.2019.8818494
8. Pavana & Vinatha U "FPGA based experimental evaluation of BLDC motor drive fed from coupled inductor based bridgeless SEPIC" 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, India, 2020, 2-4 Jan 2020, pp. 1-6, https://doi.org/10.1109/PESGRE45664.2020.9070453
9. Krishna Reddy Pittam, Deepak Ronanki, Parthiban Perumal and

Sheldon S. Williamson "New direct torque and flux control with improved torque per ampere for switched reluctance motor" IEEE International Electric Machines and Drives Conference, IEMDC 2019, 12-15th May 2019, pp.1792-1797, https://doi.org/10.1109/IEMDC.2019.8785327

10. A.O.L.Tripura Sundari & P.Parthiban "High Gain Modified Boost Converter for Electric Vehicle Battery Charging" IEEE International Conference on Energy, Systems and Information Processing (ICESIP)2019, IITD &M Kancheepuram, Tamilnadu, India,04th -06th July 2019,https://doi.org/10.1109/ICESIP46348.2019.8938258
11. Pittam Krishna Reddy & P. Parthiban "Modified Direct Torque and Flux Control of Switched Reluctance MotorDrive with Reduced Source Current Ripple for Vehicular Applications" APEC 2020 (New Orleans, USA), 15-19th March 2020.
12. Santhosh K G Manikonda, Joe Santhosh, Sanjayan Pradeep Kumar Sreekala, Siddharth Gangwani & Dattatraya N Gaonkar "Power Quality Event Classification Using Transfer Learning On Images" IEEE International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS)2019, Kalasalingam Academy of Research and Education, Srivilliputtur, Tamilnadu, India, 11th to 13th, April 2019, https://doi.org/10.1109/INCOS45849.2019.8951370
13. Santhosh K G Manikonda, Joe Santhosh, Sanjayan Pradeep Kumar Sreekala, Siddharth Gangwani & Dattatraya N Gaonkar "Power Quality Event Classification Using Convolutional Neural Networks On Images", IEEE International Conference on Energy, Systems and Information Processing (ICESIP)2019, IITD &M Kancheepuram, Tamilnadu, India,04th -06th July 2019, https://doi.org/10.1109/ICESIP46348.2019.8938324
14. Santhosh K G Manikonda, Joe Santhosh, Sanjayan Pradeep Kumar Sreekala, Siddharth Gangwani & Dattatraya N Gaonkar "Power Quality Event Classification Using Long Short-Term Memory Networks" IEEE Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER)2019, Manipal Institute of Technology, Manipal, Karnataka, India,11th to 12th Aug, 2019, https://doi.org/10.1109/DISCOVER47552.2019.9008009
15. Nisha K. S & Dattatraya N. Gaonkar " Model Predictive Control of Three Level Buck/Boost Converter for Bipolar DC Microgrid Applications**"** 16th IEEE India Council International Conference (INDICON), Rajkot (Gujarat), India, 13th to 15th December 2019, https://doi.org/10.1109/INDICON47234.2019.9029051
16. Nisha K. S & Dattatraya N. Gaonkar "Predictive Control of Three Level Bidirectional Converter in Bipolar DC Microgrid for EV Charging Stations" 2020 IEEE International conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE 2020), Cochin, Kerala, India, 2-4 January 2020, https://doi.org/10.1109/PESGRE45664.2020.9070356
17. B. Rajanarayan Prusty and Debashisha Jena "Uncertainty Modeling Steps for Probabilistic Steady-State Analysis" Lecture Notes in Electrical Engineering, Vol 553, 1st June 2019, pp.1169-1177, https://link.springer.com/chapter/10.1007/978-981-13-6772-4_102
18. B. Rajanarayan Prusty and Debashisha Jena "Probabilistic Load Flow in a Transmission System Integrated with Photovoltaic Generations" Lecture Notes in Electrical Engineering, 1st June 2019, pp.1159-1168,https://link.springer.com/chapter/10.1007/978-981-13-6772-4_101
19. Reddiprasad Reddivari &Debashisha Jena "Comparative Overview of Proportional-Integral, State Feedback Integral, and Sliding Mode Controllers for Buck Converter" IEEE DISCOVER 2019, Manipal, Aug 11-13, 2019.
20. Gautham T N, Reddiprasad Reddivari &Debashisha Jena "Design

Implementation of High Boost Embedded Semi Quasi-ZSI for Photovoltaic System Applications" IEEE GCAT-2019, 18th-20th Oct 2019, https://doi.org/10.1109/GCAT47503.2019.8978455.

21. Sai Krishna G. and Tukaram Moger "An Imperative SuDoKu-based Reconfiguration Method for Photovoltaic Array under Partial Shading Conditions" International Conference on Water, Energy and Environmental Sustainability 2020 (WEES 2020), held at National Institute of Technology Durgapur, India in association with RMIT University, Melbourne, Australia, 13th -15th January 2020.
22. Ravikiran Hiremath & Tukaram Moger "Comparison of LVRT Enhancement for DFIG- Based Wind Turbine Generator with Rotor-Side Control Strategy"ICE3-2020 (Gorakhpur, UP), 11-14 Feb 2020.
23. G Sai Krishna & Tukaram Moger "Static Reconfiguration Approach for Praway to Improve Maximum Power"ICE3-2020 (Gorakhpur, UP),14th-15th Feb 2020.
24. G Sai Krishna & Tukaram Moger "A novel Fixed Interconnection Topology for PV array to gain Maximum Energy yields"ICE3-2020 (Gorakhpur, UP),14th-15th Feb 2020.
25. Saravana Prakash P, R Kalpana, B Mohan Krishna & Bhim Singh "Harmonic Mitigation in 12-Pulse Bridge Rectifier Using DC Current Imposition Technique" IEEE Conf. PESGRE, January 02-04, 2020, https://doi.org/10.1109/PESGRE45664.2020.9070283.
26. Saravana Prakash P, R Kalpana & Bhim Singh "Third Harmonic Current Injection Based Front-End AC-DC Converter for Power Quality Improvement in DC Distribution Systems" IEEE Conf. PESGRE, January 02-04, 2020, https://doi.org/10.1109/PESGRE45664.2020.9070560
27. Saravana Prakash P, R Kalpana & Bhim Singh "Multi-Pulse Converter Based DSTATCOM for Power Quality Improvement in Distribution System", IEEE Conf. NPEC, December 13-15 2019, https://doi.org/10.1109/NPEC47332.2019.9034860
28. A Karthikeyan, C.V.S Praneeth, K.K. Prabhakaran "PV fed Hybrid Power Converter for rural home applications" ICPE 2019-ECCE Asia-10th International Conference on Power electronics-ECCE Asia, 27-30th May 2019, pp. 1-7, https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8796929
29. D G Abhilash Krishna & A Karthikeyan "Design and analysis of frequency adaptive CDSC-PLL for Dynamic Voltage Restorer during adverse grid conditions" IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), 2-4 Jan. 2020, pp. 1-5, https://doi.org/10.1109/PESGRE45664.2020.9070625
30. Dwaram Vishnuvardhan Reddy &Y S Suresh "A Novel Switched-Capacitor Boost Multilevel Inverter for PV Applications" ICSCAN-2020 Pandicheri, 27-28th March 2020.
31. Lingam Bharawaj&Y S Suresh "A Dual Boost Multilevel Inverter Circuit for Renewable Energy Applications", ICSCAN-2020 Pandicheri, 27-28th March 2020.
32. Banavath Shiva Naik, Yellasiri Suresh &JammalaVenkataramaniah "A Single Stage Switched-Capacitor Hexad Boost Multilevel Inverter Featuring Boost Ability,2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), 2- 4 Jan, 2020, https://doi.org/10.1109/PESGRE45664.2020.9070703
33. Omkar S Powar and Krishnan Chemmangat "Comparison of Pre-Processing Filters on the Performance of sEMG based Pattern Recognition." IEEE International Conference on PETPES, NITK Surathkal, 29-31st August 2019, https://doi.org/10.1109/PETPES47060.2019.9003771
34. Adesh Jagtap, Rohit Dharmadhikari, Tanmay Gajare Pratap Kumar Koppolu & Krishnan Chemmangat "Hybrid

Electric Bicycle with Regeneration Capability", International Conference on Automation, Signal Processing, Instrumentation &Control. (iCASIC 2020) VIT Vellore, 26th-28th Feb.2020.

35. Athul Viswas & Yashwant Kashyap "Inverter and PWM Control Technique suitable for Energy Applications", Recent Advances on Renewable Energy NITK, 1-9 FEB 2020.
36. P Vishnu Sidharthan & Yashwant Kashyap "Brushless DC Hub Motor Drive Control for Electric Vehicle Applications" International Conference on Power, Control and Computing Technologies (ICPC2T), NITRR, 3-5 Jan. 2020, https://doi.org/10.1109/ICPC2T48082.2020.9071469
37. D R Karthik & Shashidhara Mecha Kotian "Initialization of doubly-fed induction generator wind turbines using Noniterative method" IEEE International Conference on Power Systems (ICPS) 2019, MNIT Jaipur, 20-22 Dec. 2019, https://doi.org/10.1109/ICPS48983.2019.9067599
38. Jaychandran Padayasi & Shashidhara Mecha Kotian "Design of Supplementary Excitation Damping Controller for Mitigation of Subsynchronous Resonance"TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON), 17-20 Oct. 2019,pp. 1-5,https://doi.org/10.1109/TENCON.2019.8929374

DEPARTMENT OF INFORMATION TECHNOLOGY

1. Karthik N and V. S. Ananthanarayana, "Towards an Upper Ontology and Hybrid Ontology Matching for Pervasive Environments", 18th International Conference on Intelligent Systems Design & Applications (ISDA 2018), April, 2019,pp 275-283.
2. Rathinaraja Jeyaraj, V. S. Ananthanarayana, "MapReduce Scheduler to Minimize the Size of Intermediate Data in Shuffle Phase ", 18th International Conference on Computer and Information Science (ICIS 2019), June 17-19, 2019, Beijing, China.
3. Sakthi Murugan R, V. S. Ananthanarayana , "NPRank: Nexus based Predicate Ranking of Linked Data", 5th International Conference on Data Science and Engineering (ICDSE 2019) Indian Institute of Technology Patna (26 to 28 September 2019).
4. Rashmi M and Ram Mohana Reddy Guddeti, "Skeleton Based Human Action Recognition for Smart City Application Using Deep Learning", IEEE 12th Int. Conf. on COMmunication Systems & NETworkS (COMSNETS 2020), January 7-11, 2020, Bangalore, India.
5. Natesha B V and Ram Mohana Reddy Guddeti, "Fog-based Video Surveillance System for Smart City Applications", 8th International Conference on Frontiers of Intelligent Computing: Theory and Apps. (FICTA 2020), Jan. 4-5, 2020, NITK Surathkal, India (Best Paper Award).
6. Shailja Dalmia, Ashwin T S and Ram Mohana Reddy Guddeti, "Design and Implementation of User Centered Adaptive Search Engine", 9th International Conference on Advances in Computing and Information Technology (ACITY 2019), December 21-22, 2019, Sydney, Australia.
7. Sayani Banerjee, Ashwin T S, and Ram Mohana Reddy Guddeti, "Automated Parking System in Smart Campus Using Computer Vision Technique", IEEE TENCON 2019, Oct. 17-20, 2019, Kochi, India.
8. Vinita Yadav, Natesha B V and Ram Mohana Reddy G, "GA-PSO: Service Allocation in Fog Computing Environment Using Hybrid Bio-Inspired Algorithm", IEEE TENCON 2019, Oct. 17-20, 2019, Kochi, India.
9. Nandini AV, Aniket Dwivedi, Nilita Kumar, Ashwin T S, Vishnuvardhan V, Ram Mohana Reddy Guddeti, "Smart Cane for Assisting Visually Impaired People", IEEE TENCON 2019, Oct. 17-20, 2019, Kochi.
10. Karthik K and Sowmya Kamath S, "Improving Clinical Diagnosis Performance with Automated X-ray Scan Quality Enhancement Algorithms", International Conference

on Advances in Systems, Control and Computing (AISCC-2020), Malaviya National Institute of Technology, Jaipur (MNIT Jaipur) during February 27-28, 2020.

11. Nachiketh N, Ashwin Nayak and Sowmya Kamath S, "Leveraging Deep Learning Approaches for Patient Case Similarity Evaluation, Special session on Healthcare Analytics and Language Processing (HeAL 2020), 8th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2020), NITK Surathkal, Jan 4-5, 2020 [Best Paper Award]
12. Selvan Sunitha Ravi, Anumeha Agrawal, Rosa Anil George and Sowmya Kamath, "Benchmarking Semantic, Centroid and Graph-based approaches for Multi-document Summarization", 8th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2020), NITK Surathkal, Jan 4-5, 2020
13. Moksh Jain and Sowmya Kamath S, "Improving Convergence in IRGAN with PPO", Young Researchers' Symposium, ACM India Joint International Conference on Data Science & Management of Data 7th ACM IKDD CoDS and 25th COMAD, ISB Hyderabad, 5-7 January 2020 [DOI: 10.1145/3371158.3371209]
14. Aditya Jayasimha, Tushaar Gangavarapu, Sowmya Kamath S and Gokul S Krishnan, "Deep Neural Learning for Automated Diagnostic Code Group Prediction using Unstructured Nursing Notes", ACM India Joint International Conference on Data Science & Management of Data 7th ACM IKDD CoDS and 25th COMAD, ISB Hyderabad, 5-7 January 2020 (Core A Conference) [DOI: 10.1145/3371158.3371176]
15. Moksh Jain and Sowmya Kamath S, "Proximal Policy Optimization for Improved Convergence in IRGAN", Smooth Games Optimization and Machine Learning Workshop, Neural Information Processing Systems (NIPS 2019), Canada. (Core A* Conference)
16. Tushaar Gangavarapu, Gokul S Krishnan and Sowmya Kamath S, *"Coherence-based Modeling of Clinical Concepts Inferred from Heterogeneous Clinical Notes for ICU Patient Risk Stratification"*, In the proceedings of SIGNLL Conference on Computational Natural Language Learning (CoNLL), 2019 Conference on Empirical Methods in NLP (EMNLP 2019), Hong Kong, Nov 3-7, 2019 (Core A* Conference)
17. Sanket Sarang Salvi, Geetha V, Sowmya Kamath S, "Jamura: A Conversational Smart Home Assistant built on Telegram and Google Dialogflow", IEEE Region 10 conference TENCON 2019, 17 - 20 October 2019, Cochin, India
18. Anumeha Agarwal, Sunitha Selvan, Rosa George,Sowmya Kamath S and Anand Kumar M, "ARS_NITK at MEDIQA 2019:Analysing Various Methods for Natural Language Inference, Recognising Question Entailment and Medical Question Answering System", MEDIQA@ACL-BioNLP, Shared Task on Textual Inference and Question Entailment in the Medical Domain, co-located with 57th Annual Meeting of the Association for Computational Linguistics (ACL), Florence (Italy), Jul 28 - Aug 2, 2019. (Core A* Conference)
19. Akshay Upadhya, Swastik Udupa and Sowmya Kamath S, "Deep Neural Network Models for Question Classification in Community Question-Answering Forums", 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), July 6-8, 2019, IIT Kanpur, India
20. Tushaar Gangavarapu and C. D. Jaidhar, "*An Empirical Study to Detect the Collision Rate in Similarity Hashing Algorithm Using MD5*", Fifth International Conference on Data Science and Engineering (ICDSE),2019, PP. 11-14.
21. Anusha R and Jaidhar C D, "An Approach to Speed Invariant Gait Analysis for Human Recognition using Mutual Information", IEEE Region 10 Conference (TENCON 2019), PP. 1616-1621.
22. Anusha R and Jaidhar C D, "*Frontal Gait Recognition based on*

HierarchicalCentroid Shape Descriptor and SimilarityMeasurement", Fifth International Conference on Data Science and Engineering (ICDSE), 2019, PP. 71-76.

23. Anusha R, and Jaidhar C D. (2019), "*Gaussian filtered gait energy template and centroid corner distance features for human gait recognition*", In 14thInternational Conference on Industrial and Information Systems, (ICIIS 2019), held at Peradeniya, Sri Lanka, pp 425-430, DOI: 10.1109/ICIIS47346.2019.9063346.
24. T. G. Devi and N. Patil, "Analysis & Evaluation of Image filtering Noise reduction technique for Microscopic Images," 2020 International Conference on Innovative Trends in Information Technology (ICITIIT), Kottayam, India, 2020, pp. 1-6, (scopus indexed)
25. Sharmila Devi, V., Kannimuthu, S., Ravikumar, G., Anand Kumar, M. KCE DALab-APDA@FIRE2019: Author profiling and deception detection in Arabic using weighted embedding, (2019) CEUR Workshop Proceedings, .
26. Rakesh, R., Vishwakarma, Y., Sai Gopal, A.S., Anand Kumar, M. Bot and gender identification from twitter notebook for PAN at CLEF 2019, (2019) CEUR Workshop Proceedings.
27. Agrawal, A., George, R. A., Ravi, S. S., Kamath, S., & Kumar, A. (2019, August). ARS_NITK at MEDIQA 2019: Analysing Various Methods for Natural Language Inference, Recognising Question Entailment and Medical Question Answering System. In Proceedings of the 18th BioNLP Workshop and Shared Task (pp. 533-540).
28. Bhavya Bordia, Shaswat Patel, N Nishanth, Anand Kumar M and Bhawana Rudra , Automated Traffic Light Signal Violation Detection System using Convolutional Neural Network,Springer 2020, SocTA
29. Anand Kumar M, NITK-IT NLP@NSURL2019: Transfer Learning based POS Tagger for Under Resourced Bhojpuri and Magahi Language, NSURL Workshop on NLP Solutions for Under Resourced Languages, Italy -Sept 2019
30. G.V. Sowmya and Kiran M, *Baud Rate-Based Hierarchical Multihop Routing Protocol for WSNs*. In: Janyani V., Singh G., Tiwari M., Ismail T. (eds) Optical and Wireless Technologies. Lecture Notes in Electrical Engineering, vol 648. Malaviya National Institute of Technology Jaipur (MNIT Jaipur), Vol. 648, pp. 469-476, March 16-17, 2020, Jaipur, Springer.
31. R. K. Marangappanavar and K. M, *Inter-Planetary File System Enabled Blockchain Solution For Securing Healthcare Records*, Third ISEA Conference on Security and Privacy (ISEA-ISAP), IIT Guwahati, India, 2020, pp. 171-178, DOI: 10.1109/ISEA-ISAP49340.2020.235016.
32. R. K. Marangappanavar and Kiran M, *Proof-of-Equality: Fairness Ensured Consensus Mechanism for Blockchain Technology*, AISCC, Feb. 2020, MNIT Jaipur, Springer. *(Accepted for Publication and Own Best Paper Award).*
33. Dr. Bhawana Rudra, A chapter Titled " Moving Ahead: Internet of Things in Vehicular Networks, in the International Conference on Data and Networks Technologies, Springer series, Accepted, 2019
34. Ankur Singh, Vishakh Rao, and Dr. Bhawana Rudra.Ethereum Blockchain enabled secure and transparent E-Voting. Future Technologies Conference Springer Accepted 2020.
35. Harsh Maru, Pranav v, Yeshwanth Miryala, Bhawana rudra. Distributed Computing Solution for Steganography using Visual Cryptography and Genetic Algorithm, International Conference on Internet of Things and Connected Technologies (ICIoTCT), 2020
36. Madhuparna Bhowmik Arpitha Raghunandan, Dr Bhawana Rudra. Distributed Adaptive Video Streaming using Inter-Server Data Distribution and Agent-based Adaptive Load Balancing International Conference on Distributed Computing on Sensor Networks 2020
37. Aastha Choudary, Bhawana Rudra Video Surveillance for Crime Detection using features nternational Conference

on Advanced Machine Learning Technologies and Applications 2020
38. Satish Y C, Bhawana Rudra. ATM Theft investigation using Convolutional Neural Network In 8th International Conference on Frontiers of Intelligent Computing: Theory and Applications- Springer Journal 2020
39. Ajay, Bhawana Rudra Machine Learning Techniques for the Investigation of Phishing Websites International Conference on Frontiers of Intelligent Computing: Theory and Applications- Springer Journal 2020
40. Aditya Anantharaman, Arpit Jadiya, Chandana Tulasi Sai Siri, Adikar Bharath NVS, Biju Mohan, "Performance evaluation of topic modeling algorithms for text classification", Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, 2019-April, pp. 704-708
41. Mandikal Vikram, Rakesh Pavan, Navadiya Dhruvikkumar Dineshbhai, Biju Mohan," Performance evaluation of dimensionality reduction techniques on high dimensional data", Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, 2019-April, pp. 1169-1174
42. Ujjwal Pasupulety, Aiman Abdullah Anees, Subham Anmol and Biju R Mohan, "Predicting stock prices using ensemble learning and sentiment analysis" Proceedings - IEEE 2nd International Conference on Artificial Intelligence and Knowledge Engineering, AIKE 2019, 8791689, pp. 215-222
43. Tushaar Gangavarapu, Himadri Pal, Pratyush Prakash, Suraj Hegde, V. Geetha, "Parallel OpenMP and CUDA Implementations of the N-Body Problem" 19th International Conference on Computational Science and Its Applications, ICCSA 2019; Saint Petersburg; Russian Federation July 2019LNCS, pp. 193-208. (Scopus Indexed)
44. Bharath A. Kinnal, Ujjwal Pasupulety, V. Geetha, VaFLE: Value Flag Length Encoding for Images in a Multithreaded Environment, 4th International Conference on Information, Communication" Computing Technology (ICICCT-2009), New Delhi, Springer CCIS Series.
45. Sanket Salvi, V. Geetha, S. Sowmya Kamath, Jamura: A Conversational Smart Home Assistant Built on Telegram and Google Dialogflow, TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON), Kochi, India
46. V.Geetha, "From Light to Li-FI: Research Challenges in Modulation, MIMO, Deployment Strategies and Handover", *5th International Conference on Data Science and Engineering (ICDSE 2019) IIT, Patna.*

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

1. Smitha A., P. Jidesh, Retinal vessel classification using the non-local retinex method, Proceedings of IHCI-2019, IIIT Allahabad (LNCS-Springer). 2019 December.
2. Joseph, Christina Terese, John Paul Martin, K. Chandrasekaran, and A. Kandasamy. "Fuzzy Reinforcement Learning based Microservice Allocation in Cloud Computing Environments." In *TENCON 2019-2019 IEEE Region 10 Conference.*
3. Shishira, S.R. and A.Kandasamy, "A Comprehensive Survey on Federated Cloud Computing and its Future Research Directions" International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN 2020), SMVIT, Bangalore, India, 20- 21, February 2020, (Springer Lecture Notes on Data Engineering and Communications Technologies), (Scopus Indexed).
4. Shishira, S.R. and A.Kandasamy, "A Conceptual Framework for Intelligent Management of Workloads in Cloud Environment", Fourth International Conference on Computing Methodologies and Communication (ICCMC), SEC, Erode, India, 11-13 March 2020, pp.33 - 37, DOI:10.1109/ICCMC48092.2020.ICCMC-0006, (IEEE).
5. D.P Shetty, Lakshmi, M. Prasanna. "Minimizing the total range with two power levels in wireless sensor

networks." *Advanced Computing and Communication Technologies*. Springer, Singapore, 2019. 183-191.
6. Shetty, D. Pushparaj, and M. Prasanna Lakshmi. "Construction of Minimum Power 3-Connected Subgraph with k Backbone Nodes in Wireless Sensor Networks." In *Applied Mathematics and Scientific Computing*, pp. 527-535. Birkhäuser, Cham, 2019.
7. P. Nomosudro, J. Mehra, C. Naik and S. D. Pushparaj, "ECABBO: Energy-efficient clustering algorithm based on Biogeography optimization for wireless sensor networks," *TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON)*, Kochi, India, 2019, pp. 828-834
8. Kanchan P., Pushparaj Shetty D. (2019) Quantum PSO Algorithm for Clustering in Wireless Sensor Networks to Improve Network Lifetime. In: Abraham A., Dutta P., Mandal J., Bhattacharya A., Dutta S. (eds) Emerging Technologies in Data Mining and Information Security. Advances in Intelligent Systems and Computing, vol 814. Springer, Singapore
9. R. Madhusudhan, "An Efficient Two Factor Authentication Scheme Providing Secure Communication in Mobile Cloud Computing," IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), IEEE, pp. 80-85, Bangalore, 2019.
10. R. Madhusudhan, and M. Hegde, "Smart Card Based Remote User Authentication Scheme for Cloud Computing," IEEE 10th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), IEEE, pp. 0905-0910, Paris, 2019.
11. R. Madhusudhan, and K.S. Suvidha, "A Secure and Lightweight Authentication Protocol for Mobile User Preserving Privacy in Global Mobility Networks", The Third international Conference on Computing and Network Communications (CoCoNet'19),(IIITM-K), 2019.
12. Niranjan P K and Srinivasa Rao Kola, "The radio number for some classes of the Cartesian product of complete graphs and cycles". 2nd International Conference on Mathematical Modeling and Computational Methods in Sciences and Engineering--2020, Alagappa University, Tamilnadu, India. January 22-24, 2020.
13. KS Prashanthi, G. Chandhini, Regularization of highly ill- conditioned RBF asymmetric collocation systems in fractional models, Advances in Mathematical Methods and High Performance Computing, Proceedings of M3HPCST 2018, Vol 41, 105-116, 2019, Springer.
14. Mahadevi S, Kamath, S. S., Graph Energy Ranking for Scale-Free Networks using Barabasi-Albert Model, Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019), IEEE Xplore Part Number: CFP19J32-ART; ISBN: 978-1-5386-9439-8.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Sushmita, Hiremath S., Kulkarni S.M., "Modelling and analysis of polymer diaphragms for micro sensing and actuation", AIP Conference Proceedings, 10.1063/1.5092887, 2080, 2019.
2. Susheelkumar G.N., Murigendrappa S.M., Gangadharan K.V., "Preparation and dynamic characterization of polymer based magnetorheological elastomer for vibration isolator", AIP Conference Proceedings, 10.1063/1.5085631, 2057, 2019.
3. Singh R.K., Murigendrappa S.M., Kattimani S., "Experimental investigation on free vibration of composite beams implanted Ni-Ti shape memory alloy wires", AIP Conference Proceedings, 10.1063/1.5085583, 2057, 2019.
4. Suman M.L.J., Murigendrappa S.M., Kattimani S., "Experimental investigation on modal characteristics of plain woven glass/carbon hybrid composite beams with fixed-free end condition", AIP Conference Proceedings, 10.1063/1.5085582, 2057, 2019.
5. Gonsalves T.H., Kumar G.C.M., Ramesh M.R., "Leveraging the

effectiveness of hybrid metal-fiber composites in high speed rotating machines", AIP Conference Proceedings, 10.1063/1.5085580, 2057, 2019.
6. Patil P.R., Ahire A.S., Suman M.L.J., Murigendrappa S.M., "Development of an in-house MATLAB code for finite element analysis of composite beam under static load", AIP Conference Proceedings, 10.1063/1.5085586, 2057, 2019.
7. Kumar G.C.M., Jeyaraj P., Nagamadhu M., "Dynamic mechanical analysis of glutaraldehyde cross linked polyvinyl alcohol under tensile mode", 10.1063/1.5085588, 2057, 2019.
8. Patil M.A., Kadoli R., Kumar B.S., "Numerical approach for laminated composite beam using differential quadrature method", AIP Conference Proceedings, 10.1063/1.5085629, 2057, 2019.
9. Shankar B.S.M., Kulkarni S.M., "Investigation of piezo-capacitance and piezo-resistance properties of solid silicone rubber-conductive carbon black composites", AIP Conference Proceedings, 10.1063/1.5085605, 2057, 2019.
10. Mahesh V., Joladarashi S., Kulkarni S.M., "Comparative study on energy absorbing behavior of stiff and flexible composites under low velocity impact", AIP Conference Proceedings, 10.1063/1.5085596, 2057, 2019.
11. Chavan S., Gumtapure V., Perumal D.A., "Preparation and characterization of nanoparticle blended polymers for thermal energy storage applications", AIP Conference Proceedings, 10.1063/1.5085599, 2057,2019.
12. Biradar S., Joladarashi S., Rajole S., Hiremath S., Kulkarni S.M., "Comparative study on filament wounded and laminated GFRP composites for tensile characterization", AIP Conference Proceedings, 10.1063/1.5085628, 2057, 2019.
13. Kumar B.Y.S., Isloor A.M., Kumar G.C.M., "Viscoelastic behavior of HAp reinforced polyvinyl alcohol composite hydrogel for tissue engineered articular cartilages", AIP Conference Proceedings, 10.1063/1.5085633, 2057, 2019.
14. Sachin S., Nayaka H.S., Santhosh B., Krishna P., "Experimental study of Mode i and Mode II interlaminar fracture toughness on aerospace structural composite T300/914", AIP Conference Proceedings, 10.1063/1.5085578, 2057, 2019.
15. Bharath J., Joladarashi S., Nagiredla S., Kumar H., "Investigation of static and dynamic properties of cenosphere reinforced polymer matrix composite beams", AIP Conference Proceedings, 10.1063/1.5085622, 2057, 2019…
16. Periasamy K., Kumar G.C.M., "TGA/DSC studies of marine coral reinforced polymer composites", AIP Conference Proceedings, 10.1063/1.5085604, 2057, 2019.
17. Aveen K.P., Bhajantri V., D'Souza R., Londe N.V., Jambagi S., "Experimental analysis on effect of various fillers on mechanical properties of glass fiber reinforced polymer composites", AIP Conference Proceedings, 10.1063/1.5085615, 2057, 2019.
18. Prashanth B.H.M., Manjunath T.S., Gouda P.S.S., Sajjan S.S., Ramesh S., "Physico-mechanical response of phenolic resin composites reinforced with jute and banana fibers", AIP Conference Proceedings, 10.1063/1.5085587, 2057, 2019.
19. Kanchan M., Maniyeri R., "Computational study of fluid flow in wavy channels using immersed boundary method", Advances in Intelligent Systems and Computing, 10.1007/978-981-13-1592-3_22, 816, 283-293, 2019.
20. Vishweshwara P.S., Gnanasekaran N., Arun M., "Estimation of interfacial heat transfer coefficient for horizontal directional solidification of Sn-5wt%pb alloy using genetic algorithm as inverse method", Advances in Intelligent Systems and Computing, 10.1007/978-981-13-1592-3_35, 816, 447-459, 2019.
21. Prashantha B., Anish S., "A computational study on the stenosis circularity for a severe stenosed idealized artery", Lecture Notes in Mechanical Engineering,

10.1007/978-981-13-1903-7_36, 313-320, 2019.
22. Kadam A.R., Hindasageri V., Kumar G.N., "Estimation of heat transfer coefficient and reference temperature in jet impingement using solution to inverse heat conduction problem", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-1903-7_5, 31-37, 2019.
23. Ademane V.G., Hindasageri V., Kadoli R., "A numerical study on heat transfer characteristics of two-dimensional film cooling", Lecture Notes in Mechanical Engineering, 10.1007/978-981-13-1903-7_70, 613-619, 2019.
24. Nidhul Kottayat, Ajay Kumar Yadav, Anish Surendran, Numerical analysis on the effect of rib cross-section on thermal and hydraulic performance of artificially roughened solar air heater, 11th International Exergy, Energy and Environment Symposium (IEEES-11), Chennai, India, July 14-18, 2019.
25. Thippeswamy L. R., Ajay Kumar Yadav, Tabish Wahidi, Heat transfer performance of CO2 based NCL with and without tilting: an experimental study, 11th International Exergy, Energy and Environment Symposium (IEEES-11), Chennai, India, July 14-18, 2019.
26. Nidhul Kottayat, Sachin Kumar, Ajay Kumar Yadav, Anish Surendran, Exergy analysis of a square rib roughened triangular duct solar air heater, 11th International Exergy, Energy and Environment Symposium (IEEES-11), Chennai, India, July 14-18, 2019.
27. Tabish Wahidi, Ajay Kumar Yadav, Fluid Flow and Heat Transfer Characteristics of Subcritical and Supercritical CO2 based Natural Convection Loop, 11th International Exergy, Energy and Environment Symposium (IEEES-11), Chennai, India, July 14-18, 2019.
28. Thippeswamy L. R., Ajay Kumar Yadav, Effect of tilting on heat transfer performance of subcritical liquid CO2 based natural circulation loop, Proceedings of International Mechanical Engineering Congress (IMEC-2019), NIT Tiruchirappalli, India, Nov 29-Dec 1, 2019.
29. Tabish Wahidi, Rajat Arunachala Chandavar, Ajay Kumar Yadav, Supercritical CO2 Flow Instability in Natural Circulation Loop: CFD analysis, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, Indian Institute of Technology Roorkee, Roorkee, India, Dec 28-31, 2019.
30. Nidhul Kottayat, Ajay Kumar Yadav, Anish S, Enhancing thermo-hydraulic performance of a solar air heater using square rib roughness: CFD analysis, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, Indian Institute of Technology Roorkee, Roorkee, India, Dec 28-31, 2019.
31. Srivatsa T, Tabish Wahidi, Ajay kumar Yadav, Arun M, Comparative Computational Appraisal of Supercritical CO2 based Natural Circulation Loop: Effect of Heat-Exchanger and Isothermal Wall, Proceedings of IMEC 2019 International Mechanical Engineering Congress (IMEC-2019), NIT Tiruchirappalli, India, Nov 29-Dec 1, 2019.
32. S. Kattimani, Sharnappa J, Vinyas M, Geometrically nonlinear vibration attenuation of functionally graded magneto-electro-elastic shells, ASME Conference on Smart Materials Adaptive Structures and Intelligent Systems (SMASIS 2019), Louisville, KY, USA, Sep 9-11, 2019.
33. S. Kattimani, S. Kumar, A. Choudhary, D. Paul, S. M. Madhukar, Mangneto-electro-elastic Composite plates for vibration-based energy harvesting, International Conference on Sustainable Energy and Green Technology 2019 (SEGT 2019), Bangkok, Thailand, Dec 11-14, 2019.
34. Vinayak Kallannavar, Sagar Umatar, S. C. Kattimani, Dynamic Performance of Laminated Composite Plates with a Circular Hole, International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering (ERCAM 2019), NMIT Bangalore, India, July 25-26, 2019.

35. M. L. J. Suman, S. M. Murigendrappa, S. Kattimani, Experimental investigation on modal characteristics of plain woven glass/carbon hybrid composite beams with fixed-free end condition, AIP Conference Proceedings, 10.1063/1.5085582, 2057, 2019.
36. Ratnesh Kumar Singh, S. M. Murigendrappa, S. Kattimani, Experimental investigation on free vibration of composite beams implanted Ni-Ti shape memory alloy wires, AIP Conference Proceedings, 10.1063/1.5085583, 2057, 2019.
37. Jitendra Kumar Sahu, Ranjeet Kumar Sahu, Jitendra Kumar Katiyar, Study on improvement in geometrical dimensional accuracy of 3D printed parts, International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 11), IIT Indore, India, Dec 12-14, 2019.
38. Gajanan M. Naik, S. Narendranath, S.S. Satheesh Kumar, Effect of grain refinement on mechanical and corrosion behaviour of AZ91 magnesium alloy processed by ECAE, IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/591/1/012015, 591, 2019.
39. I.V. Manoj, Ranjith Joy, S. Narendranath, Dumitru Nedelcu, Investigation of machining parameters on corner accuracies for slant type taper triangle shaped profiles using WEDM on Hastelloy X, IOP Conference Series: Materials Science and Engineering, 10.1088/1757-899X/591/1/012022, 591, 2019.
40. I.V. Manoj, S. Narendranath , Alokesh Pramanik, Analysis and Prediction of Cutting Speed for machining Slant triangular slot on Hastelloy X using WEDM, 5th International Conference on Materials and Reliability, Jeju, Korea, Nov 25-30, 2019.
41. Abhinaba Roy, S Narendranath , Alokesh Pramanik, Effect of Peak Current and Pulse Peak Voltage on Machined Surface.Morphology During WEDM of TiNiCu Shape Memory Alloys, 5th International Conference on Materials and Reliability, Jeju, Korea, Nov 25-30, 2019.
42. S. Prithivirajan, Mayur Bapu Nyahale, S. Narendranath, Vijay Desai, Galvanic corrosion behaviour of coupled ZE41Mg – Al7075 Al alloy in 3.5 Wt% NaCl, 9th International Engineering Symposium (IES 2020) Kumamoto university, Japan, March 3-5, 2020.
43. Jitender K. Chaurasia , Danish Ashraf , A.N. Jinoop , Srikanth Bontha , C.P. Paul, K.S. Bindra, An enthalpy based finite element approach to predict single track geometry during laser directed energy deposition of Inconel 718, International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 11), IIT Indore, India, Dec 12-14, 2019.
44. Aneesh Patil, Srikanth Bontha, M.R. Ramesh, Effect of ECAP on sliding wear behaviour of Mg-Zn-Gd-Zr alloy, Materials Today: Proceedings, doi.org/10.1016/j.matpr.2019.10.045, 97–102, 2020.
45. Koneru, R., Mulyea, S., Ananthakrishna, K., Hota, R., Khate B., Srikanth Bontha, Additive manufacturing of lattice structures for heat transfer enhancement in pipe flow, 1st International Conference on Industry 4.0 and Advanced Manufacturing, Indian Institute of Science, Bangalore, India, June 28-29, 2019.
46. Deepak Kumar, D.A. Perumal, N. Gnanasekaran, M.K. Harsha Kumar, Lattice Boltzmann Method combined with Levenberg-Marquardt algorithm to estimate the unknown heat flux – A new inverse approach, Proceedings of International Mechanical Engineering Congress (IMEC-2019), NIT Tiruchirappalli, India, Nov 29-Dec 1, 2019.
47. C. Santosh, Veershetty Gumtapure, D.A. Perumal, Preparation of functionalized graphene-linear low-density polyethylene composites by melt mixing method, International Conference on Design, Materials & Manufacture (IcDeM 2019), NIT Karnataka, Surathkal, Mangalore, India, Dec 06-08, 2019.
48. Prakash H. Jadhav, N. Gnanasekaran, D.A. Perumal, Entropy generation analysis in a horizontal pipe filled with high porosity metal foam, Proceedings

of the International Conference on Numerical Heat Transfer and Fluid Flow (NHTFF-2020), NIT Warangal, India, Jan 17-19, 2020.

49. Aveen, K.P., Bhajantri, V., D'Souza, R., Londe, N.V., Jambagi, S., Experimental analysis on effect of various fillers on mechanical properties of glass fiber reinforced polymer composites, AIP Conference Proceedings, doi.org/10.1063/1.5085615, 2057,2019.
50. A. Sathyabhama, Akshat Dwivedi, Shailesh Kumar, Effect of tubercles on the performance of small horizontal axis wind turbine, Proceedings of International Conference on Recent Advances on Renewable Energy (RARE 2020), NITK, Surathkal, India, Feb 7-9, 2020.
51. Frinjo Emma, A. Sathyabhama, Ajay Kumar Yadav, Coffee Husk Biofuel as an alternate fuel for Internal Combustion Engine – A Review, Proceedings of International Conference on Recent Advances on Renewable Energy (RARE 2020), NITK, Surathkal, India, Feb 7-9, 2020.
52. Rashmi P. Shetty, A. Sathyabhama, P. Srinivasa Pai, Wind power prediction and modelling-A comparison of feed forward neural networks, Proceedings of the Global Conference on Advanced Smart and Sustainable Technologies in Engineering (GCASSTE-2020), MITE Mangalore, India, Jan 30-31, 2020.
53. C. Jayapal Reddy, A. Sathyabhama, Numerical and experimental investigation of aerodynamic performance of two distinct airfoils with leading edge triangular protuberances, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, Indian Institute of Technology Roorkee, Roorkee, India, Dec 28-31, 2019.
54. B.K. Sreejith, A. Sathyabhama, Experimental study on effect of boundary layer trip on aerodynamic performance of low Reynolds Number airfoil E216, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, Indian Institute of Technology Roorkee, Roorkee, India, Dec 28-31, 2019.
55. Jeena Joseph, A. Sathyabhama, Experimental study on the effect of leading-edge tubercle on high swept wing at low Reynolds number, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, Indian Institute of Technology Roorkee, Roorkee, India, Dec 28-31, 2019.
56. Rangaraj Madhavrao Desai, Mohibb E. Hussain Jamadar, Hemantha Kumar, Sharnappa Joladarashi, S.C. Raja Sekaran, G. Amarnath, Evaluation of a commercial MR damper for application in semi-active suspension, International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN 2019), Manipal University, Jaipur, Rajasthan, March 8-9, 2019.
57. Rangaraj Madhavrao Desai, Mohibb E. Hussain Jamadar, Hemantha Kumar, Sharnappa Joladarashi, Experimental investigation and mathematical modeling of automotive passive damper for SUV suspension system, International Conference on Design, Materials & Manufacture (IcDeM 2019), NIT Karnataka, Surathkal, Mangalore, India, Dec 06-08, 2019.
58. Rangaraj Madhavrao Desai, Mohibb E. Hussain Jamadar, Hemantha Kumar, Sharnappa Joladarashi, Dynamic analysis of quarter car vehicle model with semi-active suspension for better ride comfort, International Conference on Design, Materials & Manufacture (IcDeM 2019), NIT Karnataka, Surathkal, Mangalore, India, Dec 06-08, 2019.
59. K.N. Ravikumar, Hemantha Kumar, K.V. Gangadharan, Application of vibration analysis and data mining techniques for bearing fault diagnosis in two stroke IC engine gearbox, International Conference on Design, Materials & Manufacture (IcDeM 2019), NIT Karnataka, Surathkal, Mangalore, India, Dec 06-08, 2019.
60. K. Ashok Kumar, Hemantha Kumar, M. Arun, Effect of magnetic permeability, shearing length and shear gap of magnetorheological damper, International Conference on Recent Trends in Metallurgy, Materials

Science and Manufacturing (IMME19), NIT Trichy, India, Dec 27-28, 2019.

61. Suhas S. Aralikatti, K.N. Ravikumar, Hemantha Kumar, Fault diagnosis of single point cutting tool using spectrum, cepstrum and wavelet analysis, 1st International Conference on Manufacturing, Material science and Engineering (ICMMSE 2019), CMRIT Hyderabad, India, Aug 16-17, 2019.
62. Suhas S. Aralikatti, Hemantha Kumar, Magnetostatic analysis of magnetorheological damper for tool vibration control application, 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, Himachal Pradesh, India, Dec 11-13, 2019.
63. Radhe Shyam Saini Tak, Hemantha Kumar, Sujatha Chandramohan, Sujatha Srinivasan, Design of twin-rod flow mode magneto rheological damper for prosthetic knee application, 1st International Conference on Manufacturing, Material science and Engineering (ICMMSE 2019), CMRIT Hyderabad, India, Aug 16-17, 2019.
64. Radhe Shyam Saini Tak, Hemantha Kumar, Sujatha Chandramohan, Sujatha Srinivasan, Optimal design of rotary magneto rheological drum brake for transfemoral prosthesis, 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, Himachal Pradesh, India, Dec 11-13, 2019.
65. Radhe Shyam Saini Tak, Sujatha Srinivasan, Sujatha Chandramohan, Hemantha Kumar, Design of bypass rotary vane magneto rheological damper for prosthetic knee application, 30th International Conference on adaptive structures and technologies, Concordia University, Canada, Oct 7-11, 2019.
66. K.V. Swaroop, M.N. Aruna, Hemantha Kumar, M.R. Rahman, Rheological characterization of tragacanth gum coated carbonyl particles based magnetorheological fluids, International Conference on Design, Materials & Manufacture (IcDeM 2019), NIT Karnataka, Surathkal, Mangalore, India, Dec 06-08, 2019.
67. K.V. Swaroop, M.N. Aruna, Hemantha Kumar, M.R. Rahman, Investigation of Rheological and sedimentation properties of coated and pure carbonyl iron based magnetorheological fluids, International Conference on Recent Trends in Metallurgy, Materials Science and Manufacturing (IMME19), NIT Trichy, India, Dec 27-28, 2019
68. Subash Acharya, Tak Radhe Shyam Saini and Hemantha Kumar, Optimal Design and Analyses of T-shaped rotor Magnetorheological Brake, 1st International Conference on Mechanical Power Transmission ICMPT 2019, IITMadras, Chennai, July 2019.
69. Subash Acharya, Tak Radhe Shyam Saini, Surya Bhanu Singh and Hemantha Kumar, Characterization of Magnetorheological Brake utilizing Synthesized and Commercial fluids, Second International Mechanical Engineering Congress IMEC-2019, NIT Trichy, Nov 2019.
70. Suryarao Nagiredla, Sharnappa Joladarashi, and Hemantha Kumar, Experimental Investigation of Frequency and Damping Characteristics of Magneto rheological Fluid Core Sandwich Beams, Second International Conference on Design, Materials and Manufacture-2019, NITK Surathkal, Dec 2019.
71. Puneet N P, Abhinandan Hegale, Hemantha Kumar and K V Gangadharan, Multi Objective Optimization of Quarter Car Parameters for Better Ride Comfort and Road Holding, First International Conference on Manufacturing, Material Science and Endgineering, CMRIT Hyderabad, Aug 2019.
72. Puneet N P, Abhinandan Hegale, Hemantha Kumar and K V Gangadharan, Optimal Parameters Identification of Quarter Car Simulink Model for Better Ride Comfort and Road Holding, 7th International Congress on Computational Mechanics and Simulation, IIT Mandi, Himachal Pradesh, India, Dec 2019.
73. Puneet N P, Abhinandan Hegale, Hemantha Kumar and K V

Gangadharan, Design, Fabrication and Dynamic Performance Analysis of MR Damper Suitable for Vehicle Application, International Conference on Design, Automation and Control, VIT vellore, India, Jan 2020.

74. Madagonda K. Biradar, Ajay Kumar Yadav, Carbon Dioxide based Natural Circulation Loops for various applications: A Review, International conference on Recent advances on renewable energy (RARE-2020), National Institute of Technology Karnataka, Surathkal. ISBN:978-1-64826-759-8, Page 175-181., 7-9th February, 2020.
75. Anteneh Wogasso Wodajo, Ajay Kumar Yadav, Kumar GN, Feasibility study of dimethyl ether as alternative fuel for diesel engine- A review, International Conference on Recent Advances in Renewable Energy - RARE 2020, National Institute of Technology Karnataka, India. ISBN: 978-1-64826-759-8, Page 81-86., February 7-9, 2020.
76. Davis Pious, Joms Jacob, NIVISH GEORGE, Vinod Bhagat, Tony Chacko, and Pitchaimani Jeyaraj., VibroAcoustic Behaviour of Functionally Graded Graphene Reinforced Polymer Nanocomposites, Second International Conference on Design, Materials and Manufacture (ICDEM 2019), NITK Surathkal, December 2019.
77. Sateeshkumar Kanakannavar, Jeyaraj P, Comparative study of Natural Fibre 3D Braided Yarn Woven Fabric and Simply Twisted Yarn Woven Fabric Reinforced Epoxy Composites, Second International Conference on Design, Materials and Manufacture (ICDEM 2019), NITK Surathkal, December 2019.
78. Prajwal B Bharadwaj and Jeyaraj Pitchaimani, Newtonian approach towards mathematical modelling and tuning of a Continuously Variable Transmission, 1st International Conference on Mechanical Power Transmission, Chennai, India, 11–13 July 2019 .
79. K. V. Krishna, R. Maniyeri, Numerical Simulation of Magnetic Nanoparticle Hyperthermia Using Finite Difference Method, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2019), IIT Roorkee, Orissa, India, 28-31 December 2019.
80. R. Maniyeri, M. Kanchan, S Kang, Simulation of bacterial flagellar propulsion under pressure driven flow in a channel using immersed boundary method, 16th Asian Congress of Fluid Mechanics, Bengaluru, India, 13-17 December 2019 .
81. R. Maniyeri, S. Kang, Dynamics of bacterial flagellum in a channel flow for design of artificial microrobot, Second International Conference on Design, Materials & Manufacture (ICDEM-2019), NITK Surathkal, Karnataka, India, December 6-8, 2019.
82. B C Anil Kumar, R. Maniyeri, S, Anish, Experimental Investigation on the Effect of Decahedron Frustum Shaped Reflector on the Performance of a Cylinderical Box Type Solar Cooker, International Conference on Sustainable Energy and Environment Challehenes (SEEC-2019), CSIR-NEERI, Nagpur, India, November 27-29, 2019.
83. R. Maniyeri, M P Neeraj, S Kang, Simulation of Deformation of an Elastic Capsule in Fluid Flow using Immersed Boundary Method, 21th Annual CFD Symposium, NAL, Bangalore, August 8-9, 2019.
84. G. Thejasree, R. Maniyeri, E-bike System Modeling and Simulation, IEEE International Conference on Intelligent Systems and Green Technology (ICISGT-2019), Vishakapattanam, India, June 29-30, 2019.
85. M P Neeraj, R. Maniyeri, Numerical simulation of flow over oscillating cylinder using feedback forcing based immersed boundary finite volume method, 2nd International Conference on Numerical Heat Transfer and Fluid Flow(NHTFF-2020), National Institute of Technology, Warangal, India., January 17-19, 2020.
86. M Kanchan, R. Maniyeri, Numerical analysis of deformable membrane in viscous fluid flow, 2nd International Conference on Numerical Heat Transfer and Fluid Flow(NHTFF-2020), National Institute of Technology, Warangal, India, January 17-19, 2020.
87. B C Anil Kumar, R. Maniyeri, S, Anish, Design, fabrication and

performance assessment of a solar cooker with optimum composition of heat storage materials, 5th International National Conference on Recent Advancements in Chemical, Energy and Environmental Engineering, SSN College of Engineering, Chennai, India., February 13-14, 2020.

88. Jagadeesh C, Ramesh S, H, Shivananda Nayaka, Investigations on the strengthening of lightweight aerospace Al-Cu-Li alloy processed through Multi-Axial Forging at cryogenic temperatures, NMD-ATM-2019, Thiruvananthapuram,16th November 2019.
89. Dr. Satya Swaroop, K Praven Kumar, Praveen T R and Dr. H Shivananda Nayaka, Investigation of grain refinement and residual stress characterization for ECAP and Laser Shock Peened AM80 alloy, 6th ASIAN CONFERENCE ON HEAT TREATMENT & SURFACE ENGINEERING EXPO 2020, CHENNAI, 5 - 7 March 2020 .
90. Mohibb-e-Hussain J, Rangaraj M D, Hemantha K and Sharnappa J., Parametric Study of Magic Formula Model for Magneto-Rheological (MR) Damper, ICCMS 2019, IIT Mandi, Himachal Pradesh,, India, December, 2019.
91. Mohibb-e-Hussain J, Rangaraj M D, Hemantha K and Sharnappa J., Analyzing Quarter car model with Magneto-Rheological (MR) Damper using Equivalent Damping and Magic Formulae models, International Mechanical Engineering Congress (IMEC) 2019, NIT-Tiruchirapalli, Tamil Nadu, 29th Nov 2019 to 1st Dec 2019 .
92. Srikumar Biradar, Sharnappa J and S M Kulkarni, Investigation on Mechanical Behaviour of Filament Wound Glass/Epoxy Composites Subjected to Water Absorption and also Tribological Studies Using Taguchi Method, 4th International Conference on Processing and Characterization of Materials, 2019 (ICPCM 2019), National Institute of Technology, Rourkela, December 12-14, 2019.
93. Neetesh Kumar, Sharnappa Joladarashi, KV Gangadharan, Vivek RS, Vibration control of beam with magnetic rotating unbalance, 2nd International Conference on Design, materials & Manufacture (ICDEM 2019), NITK Surathkal, December 6-8, 2019.
94. Mohan Kumar T S, Krishna M, Sharnappa Joladarashi, Kulkarni S M, Alkali absorption and durability studies on CFRP laminated composites, 2nd International Conference on Design, materials & Manufacture (ICDEM 2019), NITK Surathkal, December 6-8, 2019.
95. Durga Prasad C, Sharnappa Joladarashi, Ramesh MR, Comparitive investigation of HVOF and flame sprayed CoMoCrSi Coating, 2nd International Conference on Design, materials & Manufacture (ICDEM 2019), NITK Surathkal, December 6-8, 2019.
96. Vishwas Mahesh, Sharnappa Joladarashi and Satyabodh M Kulkarni., Influence of Laminate Thickness and Impactor Shape on Low Velocity Impact Response of Jute-Epoxy Composite: FE Study, 2nd International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT 2019), BITS Pilani. Dubai Campus, UAE, November 20th to 22nd, 2019.
97. Vishwas Mahesh, Sharnappa Joladarashi and Satyabodh M Kulkarni., Slurry Erosive Study and Optimization of Material and Process Parameters of Single and Hybrid Matrix Flexible Composites using Taguchi Approach, 2nd International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering (ERCAM 2019), Nitte Meenakshi Institute of Technology, Bengaluru, July 25-26, 2019.
98. Nirmalkumar R, Ravikiran Kadoli and Sharnappa Joladarashi, Transverse Deflection and Vibration of Curved Sandwich Beam, International Conference on Applied Mechanics and Optimisation". Mar Baselios college of Engg & Tech. Thiruvananthapuram, India, 13-15 June. 2019.
99. Sai Krishnan A Nair, Sharnappa Joladarashi, and Nithin Ganesh, Evaluation of ultrasonic sensor in robot

mapping, 3rd International Conference on Trends in Electronics and Informatics, 2019 (ICOEI 2019), SCAD College of Engineering and Technology, Tirunelveli, India, April 23-25, 2019.

100. Banjara Kotresha, Prakash H Jadhav, Gnanasekaran N, Natural Convection through High Porosity Metal Foams – A Numerical Study,Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP) PSG College of Technology, Coimbatore, India , December 9-11, 2019.
101. Snehal Chandurkar, and Ravikiran Kadoli, Finite element and differential quadrature solution for natural frequency of a clamped free pipe conveying fluid, International Conference on Applied Mechanics & Optimisation (ICAMeO – 2019), Mar Baselios College of Engineering and Technology, Mar Ivanios Vidyanagar Campus, Nalanchira P.O, Thiruvananthapuram, Kerala, India. 13-15 June 2019.
102. R Nirmal Kumar, Ritwik Sohgaura, Ravikiran Kadoli and Sharnappa Joladarashi, Powder metallurgy process towards functionally gradation of Al-Al2O3 metal ceramic mixture samples, 1st International Conference on Mechaical Power Transmission (ICMPT 2019), Indian Institute of Technology Madras, Chennai, INDIA, 11-13 July 2019.
103. Sharmas Vali Shaik, T.P.Ashok Babu, Theoretical thermodynamic performance assessment of various environment-friendly novel refrigerants used in refrigeration systems, Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Publisher: SAGE, 2019.
104. Dev, R., Madav, V, Babu, T. P., Computational Study for Performance Analyses of Refrigerant R1234ze in Ejector Based Refrigeration Cycle, 7th Asian Joint Workshop on Thermos physics and Fluid Science at Trivandrum, India. Page no 764-772, November 21-24, 2019.
105. Dev, R., J, Manu., Madav, V., Babu, T. P, Numerical investigation of an ejector refrigeration cycle using CO2/propane mixture as working fluid, 11th International Exergy, Energy and Environment Symposium at SRM University, Chennai India., 14 - 18, July 2019.
106. A. Patil, S. Bontha and M. R. Ramesh, “Effect of ECAP on sliding wear behaviour of Mg-Zn-Gd-Zr alloy”, Materials Today: Proceedings,10.1016/j.matpr.2019.10.045, 20, 97–102, 2020.

DEPARTMENT OF MINING ENGINEERING

1. Jeripotula, S. K., Mangalpady, A., & Mandela, G. R. “Evaluation of Whole Body Vibration of Heavy Earth Moving Machinery Operators”, *International Conference on Emerging Trends in Engineering (ICETE), https://doi.org/10.1007/978-3-030-24314-2*, Learning and Analytics in Intelligent Systems LAIS, Vol. 2, pp. 362-373, July 2019.
2. Abhishek Kumar Tripathi and M. Aruna, “Investigation on the Performance of PV Panel Under Shaded Condition”, International Conference on Material and Energy (ICME), Warangal, July 2019.
3. Abhishek Kumar Tripathi and M. Aruna, “Performance Evaluation of PV Panel Under Different Dust Pollutants- An Experimental Approach”, 2nd International Conference on Opencast Mining Technology and Sustainability (ICOMS), December 2019.
4. Abhishek Kumar Tripathi, M. Aruna and Shashwati Ray, “Laboratory Investigation of Photovoltaic Panel Performance Under the Shaded Condition”, First IEEE International Conference on Power, Control and Computing Technologies (ICPC2T), DOI:10.1109/ICPC2T48082.2020.9071465, pp. 273-276.
5. Kumar, Ch.V., Murthy, Ch.S.N. & Vardhan, H. (2019); Prediction of specific energy using dominant frequency of acoustics produced during diamond core drilling operations; 2nd International Conference on Emerging Research in Civil, Aeronautical and Mechanical

Engineering, ERCAM 2019; Bangalore; India; 25th to 26th July 2019; Code 156840; AIP Conference Proceedings; Volume 2204, Article number 040003; pp. 0400031-0400036.

6. Kumar S.B., Vardhan H., Govinda Raj M., Kaza M., Sah R. & Harish H. (2019); The screening efficiency of linear vibrating screen - An experimental investigation; 2nd International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering, ERCAM 2019; Bangalore; India; 25th to 26th July 2019; Code 156840; AIP Conference Proceedings; Volume 2204, Article number 040002; pp. 0400021-0400023.
7. Harish, H., Vardhan, H., Raj, M.G., Kaza, M., Sah, R., Sinha, A. & Kumar, S.B. (2019); Investigation of iron ores based on the bond grindability test; 2nd International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering, ERCAM 2019; Bangalore; India; 25th to 26th July 2019; Code 156840; AIP Conference Proceedings; Volume 2204, Article number 040006; pp. 0400061-0400065.
8. Kunar B.M., Murthy Ch. S. N., Balaji Rao K, (2019), Comparison of the particle size distribution in marble and granite rock samples subjected to ball milling process, 2019 SME Annual Conference and Expo and CMA 121st National Western Mining Conference, ISBN:978-151088466-3.
9. Vijay Kumar S, B. M. Kunar and Ch. S. N. Murthy, presented & published a research paper entitled "Temperature measurement during rotary drilling of rocks- A statistical approach." International Conference on Emerging Trends in Engineering (ICETE19), organized by University college of Engineering, Osmania University, from 22th to 23th March, 2019.
10. Tejeswaran K M, B. M. Kunar and Ch. S. N. Murthy, presented & published a research paper entitled "Numerical Investigation on Factors Affecting the Performance of Roof Bolts for Continuous Miner Working." International Conference on Emerging Trends in Engineering (ICETE19), organized by University college of Engineering, Osmania University, from 22th to 23th March, 2019.
11. BalaRaju, J., Raj, M. G., & Murthy, C. S. . Reliability Analysis of LHD Machine-A Case Study. In International Conference on Emerging Trends in Engineering (ICETE), Osmania University, from 22th to 23th March, 2019.. Springer, Cham.
12. Harish kumar. N. S., R. P. Choudhary and Ch. S. N. Murthy.,Evolution of the probability density function of shovel-dumper combination in surface coal mine using ANN and RWB, n International Conference on Emerging Trends in Engineering (ICETE), Osmania University, from 22th to 23th March, 2019.. Springer, Cham.
13. Sarathbabu Goriparti N.V., Ch S N Murthy Aruna, M. Prediction of energy efficience of main transportation system used in underground coal mines- A statistical approach, International Conference on Emerging Trends in Engineering (ICETE), Osmania University, from 22th to 23th March, 2019.. Springer, Cham.
14. Vijaya Ragavan and Murthy. Assesment and prediction of specific energy using rock brittleness in rock cutting, International Conference on Emerging Trends in Engineering (ICETE), Osmania University, from 22th to 23th March, 2019. Springer, Cham.
15. Balaraju, J. Govinda Raj, M. Ch. S. N. Murthy. Prediction and Assessment of LHD Machine Breakdowns Using Failure Mode Effect Analysis (FMEA), International Conference on Reliability, Safety and Hazard, ICRESH 2019; Chennai; India; 11 January 2019 through 13 January 2019.
16. Kumar, Ch.V., Ch. S. N. Murthy Harsha Vardhan. Prediction of Specific Energy Using Dominant

Frequency of Acoustics Produced During Diamond Core Drilling Operations, Second International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering ERCAM – 2019.
17. Lakshminarayana, C.R., Tripathi, A.K., Pal, S.K., 2020, "MWD Technique to Estimate the Uniaxial Compressive Strength of Rocks", AIP Conference Proceedings, Vol. 2204, Issue 1, January 2020, pp. 35 – 40, D.O.I.: 10.1063/1.5141584.
18. Gayana, B.C., Shashanka, M., Avinash Rao., and Ram Chandar, K., 2019. An Experiment Investigation on Physical and Mechanical Properties of High Strength Concrete with Suitable Admixture". ICBMC-2019: 4th International Conference on Building Materials and Construction, National University of Singapore, February 25-28, 2019.
19. Gayana, B.C., Shashanka, M., Avinash, N, Rao., and Ram Chandar, K., 2019. Physico-Mechanical Properties of Concrete with Industrial Waste - A Case Study". ICSECT-2019: 4th International Conference on Structural Engineering and Concrete Technology, Italy, Rome. April 7th – 9th, 2019.
20. Gayana. B.C., Ram Chandar, K., and Krishna, R, Reddy., 2019. Influence of laterite and sandstone on the mechanical properties of concrete. EGRWSE-2019: Second International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering, UIC, Chicago, June 16-20, 2019.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

1. Narayan Prabhu, 'Comparative Study on Cooling Performance of Hot Oil and Molten Salt Quench Media for Industrial Heat Treatment', ASM Heat Treat 19, 30th Heat Treating Society Conference & Exposition, Detroit, Michigan October 15-17, 2019, (to be published in a peer reviewed journal).
2. . Nidhi Singh, Jagannatha Nayak, Jatin Bhatt and S. B. Arya, 'Electrochemical corrosion behaviour of bulk metallic glass (Zr42Cu50Ag8) in artificial physiological solutions', International Symposium on Metastable, Amorphous and Nanostructured Materials, Chennai.
3. 1. S. Janakiraman, A. Surendran, R. Biswal, S. Ghosh, S. Anandhan, A. Venimadhav, 'Preparation of nanofibrous electroactive polyvinylidene fluoride based polymer electrolyte for sodium ion batteries', E-MRS Spring Conference, France, May 2019
4. S. Shetty, G. Ekbote, A. Mahendran, S. Anandhan, 'Enhanced electro-active phase content and piezoelectric response of electrospun Ni-Co Layered double hydroxide/poly(vinylidene fluoride) (PVDF) nanocomposite non-woven webs', International Conference on 'Advancements in Polymeric Materials APM-2019',CIPET-Chennai, India, January 2019.
5. Pavankumar R Sondar, Subray R Hegde, 'Effect of Cryogenic Treatment on Plain Carbon and Low Alloy Steels', International symposium on advanced materials for industrial and societal application , trivandrum, 13 Nov 2019.
6. Basavaraj , Rakshan kumar J K, Pavan Kumar R Sondar , Sumanth Govindhrajan, Subray R Hegde, 'Failure analysis of cooling tower fanarm', International symposium on advanced materials for industrial and societal application ,trivandrum, 13 Nov, 2019.
7. Pavankumar R Sondar, Subray R Hegde, 'Deep Cryogenic Treatment of Plain Carbon and Low Alloy Steels', International symposium on advanced materials for industrial and societal application , trivandrum, 13 Nov 2019.
8. Basavaraj, Pavan Kumar R Sondar , Subray R Hegde, 'Necking behaviour of ductile cast iron', International conference on processing and characterization of metals , NIT-ROURKELA, 12 December, 2019.
9. B. Kumara, Preetham Kumar G. V., 'Effect of Multi Directional Forging on

the mechanical properties of hypoeutectic Aluminium Silicon Alloy (Abstract), NMD ATM-2019, Thiruvananthapuram, 13th November, 2019.

10. T. S. Ajmal, Shashi Bhushan Arya, S.M. Shariff, "Influence of laser surface modification on flow assisted corrosion (FAC) behaviour of API X70 steel in oilfield water", International Symposium on Advanced Materials for Industrial and Societal Applications (NMD-ATM-2019), at Hotels Uday Samudra & Samudra, Kovalam, Trivandrum, November 13-16, 2019.
11. Manjunath G, Sanjay Pujari, D. R. Patil[2], Saumen Mandal, "Screen printing of solution combustion processed ZnO - a promising UV and gas sensors", Third International Conference on Advanced Materials (ICAM 2019) 9-11 August 2019, Mahatma Gandhi University, Kottayam, Kerala, India.
12. Manjunath G, Saumen Mandal, "A novel, cost-effective and efficient approach to screen printable silver conductor by direct reduction of initial precursor for printable electronics" 5th International Conference on Nanoscience and Nanotechnology (ICONN-2019) SRM University, Kattankulathur, 28th-30th January 2019.

SCHOOL OF MANAGEMENT

1. Vadivel S.M., Sequeria A.H., Sunil Kumar Jauhar, Baskaran.R "Application of multi-criteria decision-making approach for the evaluation of Tamilnadu private bus companies from passengers' perspective", Proceedings of 4th international conference on soft computing: Theories and applications (SoCTA2019) at NIT Patna, India. December 27-29, 2019.
2. Vadivel S.M., Sequeria A.H., Sunil Kumar Jauhar, Amirthagadeswaran K.S., "CNC Machine Shop Floor Facility Layout Design using Genetic Algorithms", Proceedings of 4th international conference on soft computing: Theories and applications (SoCTA2019) at NIT Patna, India. December 27-29, 2019.
3. Vadivel S.M and Sequeira A.H., "The impact of lean service practices, workplace environment practices, and social practices on the operational performance in India Post service industry", Proceedings of 7th International Business Analytics and Intelligence Conference (DCAL2019) at IIM Bangalore, India, December 05-07, 2019.
4. Shrisha S and Kiran K B, "Technology, Demand and Innovation Capability of Indian MSMEs", Portland International Conference for Management of Engineering and Technology, Oregon, USA, August 2019.
5. Kumar, S. Pavan. (2020). Workplace Spirituality as an Antecedent of University Teachers Subjective Well-being: Mediating Role of Job Satisfaction and Job Performance. Seventh International Conference on Transformations in Engineering Education (ICTIEE 2020), Organized by IUCEE and Anurag Group of Institutions, Hyderabad, held during 5th-8th January, 2020 at Anurag Group of Institutions, Hyderabad.
6. Sheena, "Workplace Spirituality and Employee Engagement as Predictors of Job Satisfaction: A Case of Government Doctors in Kerala", International Conference on Changing Dynamics of Business Management, 25-26 September 2019.
7. Sheena and Sudheer K.M, "An Analysis of leadership authenticity of women in the Universities in Kerala", 7th International HR Conference, K.J.Somaiya Institute of Management, Mumbai, January 28-30 , 2020.
8. Prithvi , Pradyot R jena and Ritanjali Majhi, Study on Port Performance dimensions and evaluation for Indian Major Sea Ports –A Conceptual Model, IAME 2019 Conference, Athens, Greece
9. Dr. Rajesh Acharya, Exploring the Dependency between Energy Access and other Sustainable Development

Goals: Global Evidence. Presented at the Two-Day International Conference on Sustainable Development and Education during 5-6 March 2020. Organized by Department of Economics, Central University of Kerala

10. Pradyot Ranjan Jena and Sunil Khosla (2019). Role of Direct Employment Scheme and Health Policy on Household Vulnerability to Poverty: Empirical Evidence from Eastern Rural India. Presented at PEGNet Conference "Promoting 8 social, economic and socio-political development through social protection", Bonn, Germany, September 9-10, 2019.
11. Prathvi TN, R. Majhi and Pradyot R. Jena, "Study on Port Performance dimensions and evaluation for Indian Major Sea Ports –A Conceptual Model", Presented at the 27th Annual Conference of the International Association of Maritime Economists (IAME 2019 Conference), Athens, Greece, from 25th to 28th June 2019.
12. Gopalakrishna BV, "Globalisation Impact on Human Development: Evidence from Panel Data Analysis, Two-day International Conference on Liberalisation, Privatisation and Globalisation: Three Decades of Experience in India, DOI: 14-15, February, 2020, The Gandhigram Rural Institute, Dindigual, Tamil Nadu.
13. Bhat, Savita "Determinants of OFDI of Manufacturing Firms from India to the Developed Countries within OECD", 14th Annual Conference of the Forum for Global Knowledge Sharing (in partnership with Tata Trusts), IIT Madras, Chennai, India, October 11-13, 2019
14. Haritha S and Bijuna C Mohan, "Consequences of Cognitive Dissonance in Online Shopping: Conceptual Framework", IIM Indore - NASMEI Summer Marketing Information Systems Conference, IIM Indore, IN, July 26-28, 2019.
15. Raksha R Deshbhag and Bijuna C Mohan,"Study on Influential Role of Celebrity Credibility on Risk Perceptions of Indian Consumers", IIM Indore - NASMEI Summer Marketing Information Systems Conference, IIM Indore, IN, July 26-28, 2019.
16. Shamal S and Bijuna C Mohan, " Branded Fortified Foods and Beverages: Knowledge Gap between Consumer",7th International conference on Business Analytics and Intelligence, IIM Bangalore, IN, December 5-7, 2019.
17. Ranjith V K and Bijuna C Mohan, " Business Model Innovation in Healthcare sector-An Exploration", 4th International Conference on Opportunities and Challenges in Business Management, MAHE, Dubai, Manipal International University, Malaysia and MIM, India, DUBAI, 25-26 February 2020
18. Ms. Veena Shenoy and Dr. Rashmi Uchil, Presented paper titled Employee Experience and Organisational Effectiveness: A Mediating Role of Employee Engagement on 29th November -COSMAR 2019, organized by IISC Bangalore.
19. Ms. Veena Shenoy and Dr. Rashmi Uchil, Paper presented at International Conference on " Future of Work, Workforce and Workplace" Organised by WE SCHOOL Mumbai on paper titled Flexible Working Arrangement, Employee Engagement, organizational commitment: A Mediation Model on 13th and 14th Jan 2020.
20. R Pai, R., & Alathur, S. (2019, June). Mobile Health System Framework in India. In 20th Annual International Conference on Digital Government Research, Dubai United Arab Emirates. 186-195. ACM. https://doi.org/10.145/3325112.3325235
21. Pai, R. R., & Alathur, S. (2020). Women Empowerment Through Social Media: Insights from #MeToo India. In ICT Analysis and Applications. 387-

395. Springer, Singapore. Print ISBN: 978-981-15-0629-1. Electronic ISBN: 978-981-15-0630-7.

22. Pai, R. R., & Alathur, S.. Determinants of Mobile Health Application Awareness and Use in India: An Empirical Analysis. 13th International Conference on Theory and Practice of Electronic Governance (ICEGOV2020). Accepted, Athens, Greece.
23. Jayan V, Sreejith Alathur, Vaccination Drive and Cyber Threats in India, 13th International Conference on Theory and Practice of Electronic Governance (ICEGOV2020), Accepted, Athens, Greece.
24. Vanitha, P.S. and Alathur, S., 2020. Cloud-Based E-Learning Service: Insight from India. In ICT Analysis and Applications, Proceedings of ICT4SD 2019, Volume 2. (pp. 417-425). Springer, Singapore.
25. Naganna Chetty and Sreejith Alathur (2020). Policies to Mitigate Select Consequence of Social Media: Insights from India. Proceedings of ICT4SD 2019, Volume 1, In ICT Systems and Sustainability (pp. 351-359). Springer, Singapore
26. T M, Rofin, "Impact of Channel-Power Structure on the Performance of Retailer and E-tailer in an Emission Sensitive Supply Chain" 52nd Annual Convention of ORSI & International Conference IIM Ahmedabad, December 15-18, 2019.

DEPARTMENT OF PHYSICS

1. Vinayaraj S,Brijesh K,P C Dhanush,H S Nagaraja, ZnWO4/SnO2 Composite for Supercapacitor Applications, PHYSICA BCONDENSED MATTER PISSN:09214526, Karnataka, 15-01-2020 to 17-01-2020.
27.
2. Amudha A,H.D, Shashikala,H.S, Nagaraja, Plasmasprayed grapheme oxide reinforced alumina compositecoatings on low carbon steel withimproved fracture toughness, brittleness index and microhardness, Materials Today: Proceedings PISSN:,Tiruchirappalli, 27-12-2019 to 28-12-2019
3. K. Achyutha, M.N. Satyanarayan, Effect of Precursors Concentration Ratios on the Optical Properties of Methylammonium Tin Chloride Perovskite, Current Trends in Functional Materials, NITK Surathkal, 15-17 January (accepted in Physica B Special Issue)
4. S.Varadharajaperumal, D. Alagarasan, M.L. Pradeep Kumar, R. Ganesan, Gopalkrishna Hegde and M.N. Satyanarayan, Cd free Sulphurated 1D-TiO2 nanorods for heterojunction solar cells, Proceedings of the IMME 2019 at NIT Trichy, Dec. 27-28, 2019.
5. M. Mohan, M.N. Satyanarayan and Darshak Trivedi, Biothiophene based red-light emitting material – Photophysical and DFT Studies, AIP Conf. Proc., AIP Publishing, 030577, 2019
6. Sukanya Maity, Partha Pratim Das, and Sib Sankar Mal, Symmetric supercapacitor based on graphene oxide-phosphotetradecavanadate nanohybrid as an electrode material, International Conference on Nano Science and Technology (ICONSAT-2020), S. N. Bose National Centre for Basic Sciences, Kolkata, India, March 5-7, 2020.

NATIONAL CONFERENCE

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

1. Binumol S, Subba Rao, and AV Hegde, Physical modelling on hydraulic performance characteristics of perforated quarter circle breakwater, 1st National Conference on Applied Science, Engineering & Technology 2019, CASET – 2K19, 11th June 2019, Oman & has been honoured with BEST PAPER AWARD.
2. Sailesh Sairen, Subba Rao and Reddy N T., Comparison of overtopping discharges for impermeable and permeable breakwaters using MIKE 3 WFM, National Conference on Civil Engineering (NCCE-NITK) organized by Department of Civil Engineering Karnataka, Surathkal on 30 & 31 st January 2020.

3. Rifat Salahudeen ,Kumaran V, Subba Rao and Manu, Study on damage analysis of toe structure provided to a vertical caisson breakwater, National Conference on Civil Engineering (NCCE-NITK) organized by Department of Civil Engineering Karnataka, Surathkal on 30 & 31 st January 2020
4. Vishwanatha Mane, Aswathy K B, Subba Rao and Vittal Hegde , Study of the wave overtopping volume per wave on emerged quarter-circle breakwater, National Conference on Civil Engineering (NCCE-NITK) organized by Department of Civil Engineering Karnataka, Surathkal on 30 & 31 st January 2020.
5. Srinivasula Reddy I., Vadivuchezhian Kaliveeran, "Combined effect of temperature and contact pressure on coefficient of friction of dry sliding Al6061 T6 alloy contacts Materials and Manufacturing Methods - 2019, July 5 – 7, 2019, NIT Tiruchirappalli, India.
6. Raja Pandi R., Vadivuchezhian Kaliveeran, "Experimental and Numerical Study on New Displacement Sensor for Fretting Experiments", Materials and Manufacturing Methods - 2019, July 5 – 7, 2019, NIT Tiruchirappalli, India.
7. Muralidhar N., Vadivuchezhian Kaliveeran, Arumugam V. and I. Srinivasula Reddy, "Flexural Strength and Flexural modulus of Epoxy Composites Reinforced with Arecanut Husk Fibre and glass fibre", Materials and Manufacturing Methods - 2019, July 5 – 7, 2019, NIT Tiruchirappalli, India.
8. Ramachandra Rao N., Sandeep Kumar N., Vadivuchezhian Kaliveeran, "Effect of grooving technique on tensile specimens to improve the mechanical characteristics of IS 2062 grade mild steel", Materials and Manufacturing Methods - 2019, July 5 – 7, 2019, NIT Tiruchirappalli, India.
9. Shwetha, H, R., Nagesh, Kumar, D., 2019. Evaluation of satellite based ET0 models for all sky conditions. Water Future Conference, Bengaluru, and 24 – 27 September.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Lister Herington Falleiro and B. Ashraf Ali," PBM coupled CFD simulation of batch crystallizer" 46th National conference on fluid mechanics and fluid power, PSG College of Technology Coimbatore, IN, Dec 9-11, 2019.
2. Sunil Kumar Singh and B. Ashraf Ali, "Computational investigation of air solid flow in a spray dryer for effluent treatment", National conference on nanotechnology & environment,National Institute of Technology Raipur, IN, Feb 13-14, 2020.
3. Santhosh Kumar and B. Ashraf Ali, "Computational investigation of hydrodynamics and drying of industrial sludge waste", National conference on nanotechnology & environment,National Institute of Technology Raipur, IN, Feb 13-14, 2020.
4. Sunaina S Patil, Gouramma Pattanashetti , Kirthi Rajvanshi, Hari Prasad Dasari ,*, "Effect of synthesis method on Nickel Oxide nano-particles and its soot oxidation activity", National symposium On Environmental pollution prevention and control:Future perspectives EPPC:FP-August 2019 at NITK Surathkal
5. Keyur Raval, Kartik G., Ritu Raval, "Sustainable application of crustacean waste product chitin as carrier material for bio-fertilizer", EPPCFP-2019, NITK Surathkal, 21-23 August 2019
6. Keyur Raval, Harsha Thaira, Priyanka Bhat, Ritu Raval, "Increasing productivity of shaken cultures" BESCON 2019, IIT Madras 18-19 October 2019

DEPARTMENT OF CIVIL ENGINEERING

1. Abasin Salihi, Arpitha, D. and Rajasekaran C., (2020) Suitability study of processed granulated blast furnace slag (PGBS) replacement as fine aggregate in concrete, *Proc. of National Conference on Civil Engineering (NCCE NITK 2020)*, 21

2. Kondababu K, Arpitha, D. and Rajasekaran C., (2020) measurement of porosity of mortar as an indicator of durability by partial replacement of river sand with processed granulated blast furnace slag, *Proc. of National Conference on Civil Engineering (NCCE NITK 2020)*, 24.

3. S. Anaswara and R. Shivashankar (2019), "Interference Study between a Retaining Soil Wall and a Closely Built Strip Footing on Lateritic Soil', Symposium on laterites and lateritic soils, Indian Geotechnical Society – Trivandrum Chapter (CET/LBSITW), February 08, 2019, pages 62-66.

4. S. Anaswara and R. Shivashankar (2019), "Studies on tilt of closely spaced strip footings on unreinforced and reinforced sands", Indian Geotechnical Conference IGC-2019, SVNIT Surat, Gujarat, Th2-38

DEPARTMENT OF CHEMISTRY

1. Nivedha Vinod, Ritesh Tiwari, Navya Subray Bhat, Sib Sankar Mal, *and* Saikat Dutta, High-yielding synthesis of alkyl stearates from stearic acid within a closed batch reactor using heteropolyacids as efficient and recyclable catalyst AIP Conference Proceedings **2225**,070004(2020); https: //doi.org/10.1063/5.0005580.
2. Harsha Bantawal, D. Krishna Bhat, Improving the Photocatalytic Activity of SrTiO3 by Altering the Sr/Ti Ratio: Unusual Effect of Viscosity of Synthesis Medium, One Day National Seminar on Current Trends in Chemical Research and Development (CTCRD-2019) held at Vivekananda College of Arts, Science & Commerce, Puttur, D.K., India, during 18th September, 2019.
3. National Workshop on "Recent Advances in Material Chemistry", 26th September 2019. NITK Surathkal.
4. Badekai Ramachandra Bhat and Anuma Saroja (2019) "Cobalt Ferrite Nanoparticle by hydrothermal Synthesis for the efficient removal of cationic dyes from Wastewater" XXXVIIIth Annual National Conference on Indian Council of Chemists, Jaipur National University, Jaipur during 26-28 December 2019. IO-5.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

*1.*Padala, S.K., D'Souza, J., "Performance of spatially coupled LDPC codes over underwater acoustic communication channel", 26th National Conference on Communications, NCC 2020, 9056068, 21- 23 February 2020.

DEPARTMENT OF MECHANICAL ENGINEERING

1. L. R. Thippeswamy, Ajay Kumar Yadav, Heat transfer performance of subcritical liquid co2 based natural circulation loop with end heat exchangers: an experimental study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.
2. Prakash H. Jadhav, Banjara Kotresha, N. Gnanasekaran, D.A. Perumal, Forced convection analysis in a horizontal pipe in the presence of aluminium metal foam – a numerical study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.
3. Jeena Joseph, S. Surya, A. Sathyabhama, A comparison on the effect of leading edgetubercle on straight and swept wing at low Reynolds number, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.
4. K.L.V Manohar, R. Maniyeri, Numerical study of effect of asymmetery on performance of bio-mimetic caudal fin shapes,

Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.

5. M.P. Neeraj, R. Maniyeri, Mixing in oscillating lid driven cavity- a numerical study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.
6. B.C. Anil Kumar, R. Maniyeri, S. Anish, Numerical investigation on the effect of various geometries in a solar box type cooker: a comparative study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019), PSG College of Technology, Coimbatore, India, Dec 9-11, 2019.
7. Debasish Mahapatra, T.P. Ashok Babu, Time lag and decrement factor as a passive cooling tool for designing energy efficient building, 6th National Conference on Refrigeration and Air Conditioning (NCRAC 2020), IIT Madras and K.L.N College of Engineering, Madurai, India, Feb 20-22, 2020.

DEPARTMENT OF MINING ENGINEERING

1. Reddy, S.K and Ram Chandar, K., 2020. Stability Assessment of Highwall Slope of an Open pit Coal Mine- A Case Study, Recent Advances and Practices in Mineral Industry, 21-22 Feb, 2020, VNIT Nagpur, 6-12.

SCHOOL OF MANAGEMENT

1. Pradyot Ranjan Jena, "Sustainable Agriculture in Development Countries: What Do We Know from Evidence?" Presented at National Conference on Inclusive Green Growth in India: Path Way to Sustainable Development. June 18-19, 2019 at Utkal University, Bhubaneswar, India.
2. Ms. Veena Shenoy and Dr. Rashmi Uchil, Presented paper titled Physical environment, employee engagement and organizational effectiveness on 30th August 2019, organized by MP Birla Institute of Management, Bangalore

14. TECHNICAL EVENTS

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

STTPS/Schools/Seminars/Workshops etc

1. Seminar on Innovative concept in Ocean Engineering, 26.04.2019, NITK, Co-ordinator : Dr. Manu
2. Training porgramme on Geospatial Technologies, 11-31 July 2019, NITK, Co-ordinator : Dr. H. Ramesh
3. Seminar on Coastal Reservoirs as a sustainable strategy for water security, 22nd – 24th July, 2019, NITK, Co-ordinator : Dr. H. Ramesh
4. CEP Course for PWD Engineers, 'Drone survey on 3D mapping', 26th -30th , August 2019, co-ordinator : Dr. Pruthviraj U.
5. Training programme on Hydrology and Hydrologic modelling using MIKE (DHI) Software , 16.09.2019, AMD, NITK, Co-ordinator : Dr. K. Subrahmanya
6. Training programme on ARCGIS software, 18th to 20th Sept. 2019, AMD, NITK, Co-ordinator : Dr. Amba Shetty
7. GIAN programme on Design and analysis of offshore floating and turbine, 3rd to 7th Sept. 2019, MHRD, Co-ordinator : Dr. D. Karmakar
8. Workshop on Prakruti Infocus, 28.09.2019, NITK, Co-ordinator : Dr. Pruthviraj U.
9. Training programme on Pix4D Map Software, 23.09.2019, AMD, NITK, Co-ordinator : Dr. Pruthviraj U.
10. Training progamme on Physical & Numerical Modelling in Coastal and Ocean Engineering' 4th to 10th Nov. 2019, NITK, Co-ordinators : Dr. Pruthviraj U. & Dr. Kiran G. Shirlal
11. Symposium on 'Open source hydrodynamics program on numerical modelling' 13th Nov. 2019.
12. GIAN program on "Environmental loads and Design Approach for Fixed and Floating Offshore Structures" 24th -27th December 2019, Co-ordinators: Dr.T.Nasar & Prof Subba Rao

FOREIGN VISITORS TO DEPARTMENT

1. Dr. Rituparna Datta, Computer Research Scientist, University of South Alabama, USA given a Expert talk on Topic Evolutionary Multiobjective Optimisation on 9th& 10th August 2019.
2. Prof. Motohiki Murai, Professor, Dept. of Environment and System Sciences, Yokhohoma National University, Tokiwadai, Hodogaya Yokohama, Japan, for the Gian programme 'Design of analysis of floating wind turbine, 3rd to 7th Sept. 2019.
3. 3.Dr. Krish P Thiagarajan, Professor, Department of Mechanical Engineering, University Of Massachusetts Amherst, USA, for the GIAN programme Environmental loads and Design Approach for Fixed and Floating Offshore Structures , 24th - 27th December 2019.
4. Prof. Hans Bihs, Associate Professor, Marine Civil Engineering, NTNU, Trondhenim, Norway , Resource person for the Workshop on 'Physical & Numerical Modelling in Coastal and Ocean Engineering', 4th to 10th Nov. 2019.
5. Dr. Arun Kamath, Faculty, Marine Civil Engineering, NTNU, Trondhenim, Norway, Norway , Resource person for the Workshop on 'Physical & Numerical Modelling in Coastal and Ocean Engineering', 4th to 10th Nov. 2019

INDIAN VISITORS TO DEPARTMENT

1. Dr. K.P. Sudheer, Professor, Environment and Water Resources Engineering Division, IIT, Madras, Visited for Viva-voce exam and Interaction with faculty and students of the Dept. 20.04.2019.
2. Dr. S.A.Sanasiraj, Professor, Ocean Department, IIT Madras, Visited for Viva-voce exam and Interaction with faculty and students of the Dept., 25.04.2019.

3. Dr. K.Ganesh Raj, RRSSC, Bangaluru, As a Chief Guest for Summer school Geospatial Technologies', 11.07.2019.
4. Prof. T.G. Seetharam, Director, IIT Guwahati, Chief Guest for the Workshop on, Coastal Reservoirs as a sustainable strategy for water security Under Scheme for Promotion of Academic and Research Collaboration (SPARC) , 22nd July, 2019.
5. Dr. Shamitha Kumar, Chairperson, Committee on Geospatial Capacity Building, Department of Science and Technology, Government of India, As a Chief Guest for Summer school 'Geospatial Technologies' for Valedictory, 31.07.2019.
6. Dr. P.G. Diwakar, Director of Earth Observations Applications and Disaster Management Programme,ISRO Bengaluru. As a Guest of honor for Summer school 'Geospatial Technologies' for Valedictory. 31.07.2019.
7. Dr. Nagesh Kumar, Professor, IISc. Bengaluru, Visited for Viva-voce exam and Interaction with faculty and students of the Dept. 20.08.2019 & 21.08.2019.
8. Prof. Erinjery Joseph James, Pro Vice Chancellor, Karunya Deemed University, Coimbatore, Talk on 'Role of Ecosystems in integrated water resource management, 05.09.2019.
9. Dr. M.C.Deo, Professor, IIT Bombay, Visited for Viva-voce exam and Interaction with faculty and students of the Dept. 10.10.2019.Dr. Nagesh Kumar , Professor, IISc. Bengaluru, Visited for Academic Audit, 11.10.2019.
10. Dr. Hari Prasad, Professor, IIT Roorkee. Visited for Academic Audit, 11.10.2019.
11. Dr. Jayakumar Saleem , Scientist, NIOT Goa. Visited for Academic Audit, 11.10.2019.
12. Dr. Suresh Kumar, Scientist, IIRS, Dehraduan, Visited for cademic Audit, 11.10.2019.
13. Dr. S.A.Sanasiraj, Professor, Ocean Department, IIT Madras, Visited for Viva-voce exam and Interaction with faculty and students of the Dept. 04.12.2019.
14. Dr. K. Jayaraman, Professor, IIT Madras, Visited for Viva-voce exam and given a talk on Mechanical characterization of Aeracnut Husk fibre Husk composite panels using static and dynamic loading condition' 26.12.2019.
15. Dr. Balaji Ramakrishnan, Professor, IIT Bombay Visited for Viva-voce exam and Interaction with faculty and students of the Dept. 05.02.2020.
16. Dr. Kasi Vishwanathan, Professor, IIT Roorkee, Visited for Viva-voce exam and Interaction with faculty and students of the Dept, 07.02.2020
17. Prof. S. K. Mishra , Professor, IIT Roorkee, Visited for Viva-voce exam and given a talk on 'Advances in curve numbering techniques', 14.02.2020

AWARDS AND RECOGNITIONS

Binumol S, Subba Rao, and AV Hegde (2019) "Physical modelling on hydraulic performance characteristics of perforated quarter circle breakwater", 1st National Conference on Applied Science, Engineering & Technology 2019, CASET – 2K19, organised by Ibri college of Technology, Ibri, Sultanate of Oman on 11th June 2019, has been honoured with BEST PAPER AWARD, 11th June 2019

Infrastructure Development Setting upof new labs from Project funding and IRG

Offshore Renewable Energy and Simulation Laboratory (Development in progress under project fund)

- HPC Server
- Desktop Computers (3 Nos)
- MATLAB
- Acceleration Sensors
- Pressure Sensors
- Anchor Load Sensors
- Tilting Sensors
- Wave Sensors
- Force Sensors

BOOK CHAPTERS:

1. Prerna Kumari and Ramesh H., 2020. Extraction of Nearshore Bathymetry of Mangaluru Coast for Planning Coastal Reservoir using Remote Sensing Image. 13th chapter in the Book "Sustainable water resources development using Coastal reservoir". Edited by T. G. Sitharam et el., Springer.
2. B. Vinay Kumar, K. Sadhik, Kumaran V, Subba Rao, and Manu, "An Experimental Investigation on Toe Stability for Vertical- Caisson Breakwaters" In the book titled "Lecture Notes in Civil Engineering" edited by Mithun B M & Anil Kumar (eds.), Springer, Singapore, 2020.
3. Ramesh N., Hedge A.V., and Subba Rao, "Prediction of reflection coefficient of a perforated Quarter circle breakwater using artificial neural network (ANN)" in the book titled "Journal of Physics:conference series" IOP Publishing, 2019 J. Phys.: Conf. Ser. 1276 011001 (https://iopscience.iop.org/article/10.1088/1742-6596/1276/1/012006)(2019)
4. K. Chaitanya Sai, Ajay H. Patil & D. Karmakar (2019), Motion Response Analysis of Floating Wind Turbine Combined with Wave Energy Converter, *Proceedings of 10thInternational Conference on Asian and Pacific Coasts, (Springer Nature)*, 1099-1106.
5. Athul Krishna K.R., V. Venkateshwarlu & D. Karmakar, (2019), Wave transformation due to a submerged porous block associated with a vertical barrier, *Proceedings of 10thInternational Conference on Asian and Pacific Coasts (Springer Nature)*, 717-724.

DEPARTMENT OF CHEMICAL ENGINEERING

Book Chapters:-

1. Raj Mohan Balakrishnan, Priyanka Uddandarao, Vishnu Manirethan, Keyur Raval, Insights on the advanced processes for treatment of inorganic water pollutants, Inorganic Pollutants in Water, Elsevier publishers, doi.org/10.1016/B978-0-12-818965-8.00016-0
2. Jananisree Ganesan, Madhangi Priyadharshini Gandhi, Maheswari Nagendran, Bin Li, Vaishakh Nair, and Padmanaban Velayudhaperumal Chellam, "Functional Properties of Nanoporous Membranes for the Desalination of Water" in, *Environmental Nanotechnology,* DOI: 10.1007/978-3-030-26668-4_4, Springer , Volume 4, 2020, pp 131-164, ISBN: 978-3-030-26667-7. ISBN: 978-3-030-26668-4 (e-book).

BOOKS PUBLISHED:

1. Contributed Chapter 2 - A perspective of advanced biosensors for environmental monitoring in book Tools, Techniques and Protocols for Monitoring Environmental Contaminants, 2019, Pages 19-51 (Elsevier Publishers) Authors: Raj Mohan Balakrishnan, Uddandarao Priyanka, Keyur Raval and Ritu Raval. doi.org /10.1016/B978-0-12-814679-8.00002-9.

PATENTS

1. Kishor Kumar M.J. and Jagannathan T. K. "Method and composition for fabricating high-k dielectric material", *Indian Patent Office*, Patent Application No.: 201941047909, Nov 23, 2019

POSTERS PRESENTED

1. Ashmitha Das, Irfana Shahjahan, Lakhan Lal, Kirthi Rajvanshi and Hari Prasad Dasari "Dilatometer studies of LAMOX based Electrolyte material for Solid oxide electrolysis Cell" International Conference on Nano Science and Technology (ICONSAT 2020) Biswa Bangla Convention Centre, New Town Kolkata March 5-7, 2020
2. Sahana Naik, Sunaina Patil, Irfana Shajahan and Hari Prasad Dasari " Synthesis And Characterization of Niobium Doped Ceria Based Solid

Electrolytes"International Conference on Electrochemistry (EIHE–2020) organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) at DAE Convention centre, Anushaktinagar, Mumbai during January 21-25, 2020.

3. Shweta Ganiger, Irfana Shajahan, Sunaina Patil and Hari Prasad Dasari "Dilatometer Studies Of Praseodmium Doped Ceria Based Electrolyte Material For IT-SOFC" International Conference on Electrochemistry (EIHE–2020) organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) at DAE Convention centre, Anushaktinagar, Mumbai during January 21-25, 2020.
4. Varsha Mavath, Sunaina Patil, Irfana Shajahan, Hari Prasad Dasari "Synthesis and characterization of Ceria based material as a catalyst for soot oxidation activity" International Conference on Electrochemistry (EIHE–2020) organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) at DAE Convention centre, Anushaktinagar, Mumbai during January 21-25, 2020.

Conference

1. National Symposium on Environmental Pollution Prevention and Control: Future Perspective-2019(EPPC:FP-2019) Organized by Department of Chemical Engineering ,NITK Surathkal in association with Ministry of Environment, Forests and Climate Change, GoI ; Central Pollution Control Board and Karnataka State Pollution Control Board. Held during 23rd and 25th August 2019. Symposium Chair: Prof. G. Srinikethan , Organizing Secretaries : Prof Vidya Shetty K and Prof B. Raj Mohan.

WORKSHOPS

1. Dr. Maneesh K Poddar "Effective Digitization on Course Content for Blended Learning and Flipped Class Room" (Sponsored by TEQIP-III) two - days workshop on March 9-10, 2020 at NITK, Surathkal.
2. Dr. Maneesh K Poddar "AICTE/MHRD's Innovation Ambassador Training Program" two days workshop on Feb 26-27, 2020 at ACS College of Engineering, Bangalore. The workshop was organized by MHRD's Innovation Cell, AICTE, New Delhi.

FOREIGN VISITORS TO DEPARTMENT

1. Dr. Antoinette P. Malan, Professor, Dept. of Conservative Ecology, Stellenbosch University, Cape Town, South Africa, visited on 14.10.2019
2. Ms. Ilisa Ishan, Faculty of Science, University Brunei Darussalam, Brunei did her AI-RTF/ RTF-DCS Fellowship during 1st Jan 2020 to 28th Feb 2020 in the department of Chemical Engineering under the guidance of Dr. Prasanna B.D

VISIT TO ABROAD (Faculty):-

1. Dr Hari Prasad Dasari* presented paper on "A Study On Multi Doping Effect On Ceria Based Materials For Soot Oxidation Activity" at KIST School ASEAN Alumni Partnership Symposium Hanoi, Vietnam, during December 20-21, 2019.
2. Dr. Prasanna B.D, Associate Professor in chemical Engineering department visited Stellenbosch University during 13-20, October, 2019 to pursue joint collaborative research project funded by DST, Govt. of India.
3. Prof.Vidya Shetty K ,Department of Chemical Engineering attended and presented a paper at Asia Pacific Conference on Nano-Micromaterials for Circular economy and Sustainability held during 29 Aug 2019 - 01 Sep 2019 at National University of Singapore organized by NUS Singapore, UCF USA and National Science Foundation.

DEPARTMENT OF CIVIL ENGINEERING

BOOK CHAPTERS

1. Azhoni, A. "Climate Change Adaptation for Sustainable Management of Water in India: Issues and Challenges" in *Sustainability: Fundamentals and Applications.* Wiley, 2020, ISBN: 9781119434016, https://doi.org/10.1002/9781119434016.ch21.

2. Thiviya, S. K., Krishnan, A. G., Kalathuru, M., Sharma, A. K., & Kolathayar, S. (2020). Strength Behavior of Rammed Earth Stabilized with Metakaolin. In Advances in Geotechnical and Transportation Engineering (pp. 29-39). Springer, Singapore.

4. Resmy V.R. and Rajasekaran C. (2020) Topology Optimization of Concrete Dapped Beams Under Multiple Constraints. In: Dutta D., Mahanty B. (eds) Numerical Optimization in Engineering and Sciences. Advances in Intelligent Systems and Computing, vol 979. Springer, Singapore

5. Srinivas F. Chitragar, Chandrashekhar B. Shivayogimath, Raviraj H. Mulangi (2019),"Study on Strength and Volume Change Behavior of Expansive Soil Using Non-traditional (Bio-enzyme) and Traditional (Lime and Bagasse Ash) Stabilizers", Geotechnics for Transportation Infrastructure, Lecture Notes in Civil Engineering (Springer), Vol 29, pp 587-594.

6. Shivashankar R., Biji Chinnamma Thomas, K. T. Krishnanunni and D. Venkat Reddy (2019) "Slope Stability Studies of Excavated Slopes in Lateritic Formations". In book - Geotechnical Applications:IGC2016. Edited by Anirudhan, I. V. and V. B. Maji, Lecture Notes in Civil Engineering, vol 4, pp.127-134 Springer, Singapore. doi:10.1007/978-981-13-0368-5_14.

Patel, Radhika M; Jayalekshmi, B.R. and Shivashankar, R. (2019), "Seismic Response of Basal Geogrid Reinforced Embankments supported over floating and End Bearing Piles", 7th International Conference on Earthquake Geotechnical Engineering [7ICEGE], Rome, Italy, 17-20 June 2019, Proceedings in Earth and geosciences, Volume 4, Earthquake Geotechnical Engineering for Protection and Development of Environment and Constructions, Editors: Francisco Silvestri and Nicolal Moraci, ISBN978-0-367-14328-2 (Multimedia), ISBN: 978-0-429-03127-4 (e-book), DOI:https://doi.org/10.1201/9780429031274, CRC Press/Balkema.

7. Patel, R. M., Jayalekshmi, B. R. and Shivashankar, R. (2020) 'A Study on the Seismic Behaviour of Embankments with Pile Supports and Basal Geogrid. In: Prashant A., Sachan A., Desai C. (eds) Advances in Computer Methods and Geomechanics. Lecture Notes in Civil Engineering, Vol. 56, Springer, Singapore. . : DOI:https://doi.org/10.1007/978-981-15-0890-5-22.

8. Shreyasvi C, Venkataramana K (2020): "Seismic hazard estimation for Southwest India", Advances in Computer Methods & Geomechanics (A Prashant et al (eds.)), Lecture Notes in Civil Engineering 56, Springer Nature, *pp. 207-220.* https:*doi.org/10.1007/978-981-15-0890-5_18.*

9. Shreyasvi C, Badira Rahmath N and Venkataramana K (2020): "Influence of variabilities of input parameters on seismic site response analysis", *Advances in Computer Methods & Geomechanics (A Prashant et al (eds.)), Lecture Notes in Civil Engineering 56*, Springer Nature, pp. 233-244. https:*doi.org/10.1007/97*R.

10. Manjunath and Mattur C Narasimhan- Alkali-activated Concrete Systems' in New Materials in Civil Engineering,

Elsevier. Ed: Pijush Samui, Dookie Kim, Nagesh Iyer and Sandeep Chaudhary ISBN 97801281.

11. Manjunath R and Narasimhan M.C(2019), "High Strength Flowable Alkali Activated Slag Concrete Mixes produced using industrial wastes", IOP Conference Series Materials Science and Engineering 561:0120, DOI: 10.1088/1757-899X/561/1/012003

BOOKS EDITED:-

1. Narasimhan, M.C., George, V., Udayakumar, G., Kumar, A. (Eds.), **"**Trends in Civil Engineering and Challenges for Sustainability", include select contributions from the International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS), held at Nitte, Karkala, India during May 2019

REVIEWS:-

1. Sridhar G, "[Review of the Journal Article: Improvement of Soft Clay by Vacuum Preloading Incorporated with Electroosmosis Used Electric Vertical Drains]', Journal of Testing and Evaluation, ASTM, JTE-2020-0050.R1.

2. Narasimhan M.C., Review of the Journal Article, "Preparation and properties of Sintering red mud unburned road brick using orthogonal experiments", Journal of Construction and Building Materials (Elsevier), Nov 2019.

3. Narasimhan M.C., Review of Journal Article, Experimental and theoretical investigations of recycled self-compacting concrete filled steel tubular columns subjected to axial compression", Journal of Construction and Building Materials (Elsevier) , Jan 2020.

4. Narasimhan M.C., Review of Journal Article, "Simulation of ultra-high-performance concrete mixed with hematite and barite aggregates using Monte Carlo for dry cask storage" , Journal of Construction and Building Materials,(Elsevier), Jan 2020

DEPARTMENT OF CHEMISTRY

BOOK CHAPTERS:-

1. Praveen Mishra, Badekai Ramachandra Bhat (20.01.2020) "Correlation between Synthesis and Properties of Graphene" chapter in the book Graphene as Energy Storage Material for Supercapacitors, Material Research Foundation 64 (2020) 25-62 Materials Research Forum LLC,
2. Praveen Mishra, Badekai Ramachandra Bhat (23.12.2019), "Zero-Dimensional Carbon Nanostructures for Supercapacitors" Chapter in a book Morphology Design Paradigms for Supercapacitors 1(2019), 1-32, CRC Press, ISBN: 13:978-0-367-20754-0, Taylor & Francis Group, 6000 Broken Sound Palcoog NW, Suit 300, Boca Raton, FL 33487-2742.

BOOKS PUBLISHED :

1. Dileep R and Badekai Ramachandra Bhat (13.03.2020), "Green conversion oxidation of alcohols using metal complexes: homogeneous catalysis" LAP LAMBERT Academic Publishing, Germany, Pages:220, ISBN-10: 6200786984, ISBN-13: 978-6200786982

PATENTS

Madav, Vasudeva; Dutta, Saikat and Mohan, Akhil, "Method, system and apparatus for upgrading tyre pyrolysis oil", Indian Patent Office, Application No.201841018816 A, November 22, 2019.

SEMINARS(NATIONAL& INTERNATIONAL)

WORKSHOPS

National workshop on Recent Advances in Material Chemistry

(RMAC) on 26th September 2019 as a part of Diamond Jubilee celebrations. Convener: Prof. B Ramachandra Bhat, Co-Convener: Dr. Udaya Kumar D

VISIT TO ABROAD (Faculty):-

6th International conference of Indian Council of Chemists at Hotel Novotel Wellness and Spa roissy (Paris) Courtyard by Marriot-Avenue des Olympiades (Brussels) June 6-8, 2019.

Research collaboration visit to Universiti Teknologi Malaysia by Dr Arun M. Isloor during July 2019 for 14 days.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MAGAZINE/NEWSPAPER ARTICLES:

Pais, A.R, Rao, R.S., "Phishing attacks and the countermeasures", InfoSecdepot-2019 Magazine, pp. 58-59. (2019)

PATENTS:

Dr. P. Santhi Thilagam , Amit Praseed, "System and Method for Detecting Asymmetric Application Layer DDoS Attacks using User Access Pattern Model" -Filed(Oms Reference C.000704)

Dr. B.R.Chandavarkar, V Saicharan and Mohit Bansi, "Rhombus-based travellers' optimum route recommendation system" - Filed (Oms Reference C.000762)

SEMINARS (NATIONAL & INTERNATIONAL):

One day Seminar on "Industry Oriented Approaches in Big Data and Machine Learning" with experts from Ericson Research Lab , Bangalore organized by Dr. K. Chandrasekaran on 31-08-2019.

WORKSHOPS:

A FIVE days' workshop on "Simulation of Underwater Communications (SUC'19)" was held during 9th to 13th December 2019. Co-ordinator(s): Dr. B.R. Chandavarkar.

FACULTY DEVELOPMENT PROGRAMME:

A FIVE days' Faculty Development Programme on "Information Security" was held during 14th to 18th October 2019 [sponsored by AICTE]. Co-ordinator(s): Dr. Alwyn Roshan Pais and Dr. P Santhi Thilagam.

A FIVE days' Faculty Development Programme on "Internet of Things (IoT)" was held during 4th to 8th November 2019 [sponsored by AICTE]. Co-ordinator(s): Dr. Alwyn Roshan Pais and Dr. P Santhi Thilagam.

A FIVE days' Faculty Development Programme on "Cyber Security" was held during 16th to 20th December 2019 [sponsored by AICTE]. Co-ordinator(s): Dr. Alwyn Roshan Pais and Dr. P Santhi Thilagam.

FOREIGN VISITORS TO DEPARTMENT:

Dr. Govind Shenoy, Dept. of Computer Science, University of WISCOSIN Modison 53705 visited on 15-11-2019

VISIT TO ABROAD (Faculty):-

Dr. Mohit P Tahiliani attended GCI Grand Prize Winners Summit at Google Campus, San Francisco, USA , 10 – 13 June 2019

Dr. Mohit P Tahiliani attended ns-3 developers meeting and workshop on ns-3 at university of Florence , Italy and presented his paper, 17 – 21 June 2019

Dr. K. Chandrasekaran attended an International Conference on Software Engineering and Knowledge Engineering (SEKE2019) held in Hotel Tivoli, Lisbon, Portugal and presented his paper, 10-12 July 2019.

Dr. K. Chandrasekaran attended an International Conference on Knowledge Management in Organization (KMO) 2019 held in University of Salamanca, Spain and presented his paper, 15-18 July 2019.

Dr. Basavaraj Talawar attended OpenPower Summit to release the open source modules of the POWER system on the gem5 architecture simulator at San Diego, USA , 19-20 August 2019

Dr. Basavaraj Talawar attended "Sakura Science Exchange Program-2020" Japan Science and Technology Agency (JST), Japan, 25 Jan – 01 Feb 2020.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

BOOK CHAPTERS

Deepa Puneet and Muralidhar Kulkarni, Book Chapter, "Data Aggregation Using Distributed Compressive Sensing in WSNs", SPRINGER NATURE Singapore Pte Ltd 2020, S. M. Thampi et. al.(Eds.): SIR'S 2019, Communications in Computer and Information Science (CCIS),1209, pp.276-290, 2020. https://doi.org/10.1007/978-981-15-4828-4_23.

Ranjan Kumar Mahapatra, N S V Shet, Topology Control in Wireless Sensor Networks: A Survey(Book Chapter), Lecture Notes in Networks and Systems, Volume 33, 2019, Pages 335-346.

Prabu K., A chapter author for a book "Principles and Applications of Free Space Optical Communication", IET Publications. Title of the chapter is "Performance analysis and mitigation of turbulence effects using spatial diversity techniques in FSO systems over combined channel", 2019.
Prabu K, A chapter author for a book "Turbulence and Related Phenomena", Intech Open. Title of the chapter is "Performance analysis of FSO systems over atmospheric turbulence channel for Indian weather conditions", 2019.

PATENTS

Deep Bera, B.S. Raghavendra, Rangavittal Narayanan, Sandipan Chakroborty, Praveen Pankajakshan, Method and apparatus for classifying cardiac arrhythmia, US Patent, Patent No.: US 9,380,956 B2, Date of Patent: Jul. 5, 2016.

STTPS (SHORT TERM TRAINING PROGRAMMES)/SCHOOLS

Winter School on Applications of Machine learning techniques for Medical Image Analysis in association with Baylor College of Medicine, Houston as part of MHRD SPARC project and NITK Diamond Jubilee events by Dr. Sumam David S and Dr. Deepu Vijayasenan with Baylor College of Medicine, Houston, December 2-13, 2019.

5 day STTP on Speech, Audio and Music Processing (SAMP 2020) as a part of NITK Diamond Jubilee by Dr. Aparna P. and Dr. Deepu Vijayasenan with Prof. S R Mahadeva Prasanna, IIT, Dharwad, Dr. Sriram Ganapathy, IISc, Bangalore, Prof. Preeti Rao, IIT Bombay, Prof.. Gangshetty, IIIT Hyderabad and Dr. Ajay Srinivasmurthy, Amazon, Bangalore, January 28-February 1, 2020.

WORKSHOPS

One day workshop on Recent Trends in Wireless Optical Communications –

NITK IEEE by Dr. Prabu K. and Dr. Sandeep Kumar with Prof. Arun Majumdar (USA) and Dr.T Srinivas (IISc., Bangalore) Chair, IEEE Photonics Society Bangalore Chapter, 6th March 2020.

EXPERT TALKS

Technical Talk on "A brief insight into the Physics and applications of ultrafast magnetism: Towards Ultrafast Spintronics" by Mr. Akshay Pattabhi, Researcher, University of California, Berkeley, 4th September 2019.

Guest Lecture on "NAND Flash and Solid Storage Drives" by Mr. Gajendra Singh, Director, STL Technologies, Bangalore, 1st October 2019.

Series of Industry Expert lectures on "Hands-on Xilinx PYNQ Board with FPGA" by Er. Prakash Ganesh Lead Application Engineer CoreEl Technologies, Bangalore, 2nd March 2020.

FOREIGN VISITORS TO DEPARTMENT

Mr. Akshay Pattabhi, Researcher, University of California, Berkeley, 4th September 2019.

Dr. Mandava Pitchaiah, Associate Professor, Dept of Neurology, Baylor College of Medicine, Houston, Texas, visited during December 2-13, 2019.

Dr. Paul Litvak, Asistant Professor, Dept of Neurology, Baylor College of Medicine, Houston, Texas, visited during December 2-13, 2019.

Prof. Arun Majumdar (USA), visited on 6th March 2020.

VISIT TO ABROAD (Faculty):

Ms. Kalpana G. Bhat, Department of E&C Engg, visited Bangkok, Thailand, to present a research paper, November 11-14, 2019.

Dr. Sumam David S., Department of E&C Engg, visited University in USA, as a Program Evaluator for ABET on behalf of IEEE ABET accreditation, October 27-29, 2019.

Dr. Sumam David S., Department of E&C Engg, visited Cambridge University, UK, to participate LEAP, June 3-7, 2019.

Dr. Aparna P., Department of E&C Engg, visited NTU, Singapore, to present a research paper, April 11-13, 2019.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Book Chapters:-

1. Tukaram Moger and Thukaram Dhadbhanjan Reactive Power Loss Index for Identification of Weak Nodes and Reactive Compensation Analysis to Improve Steady State Voltage Stability" Book Chapter in Novel Advancements in Electrical Power Planning and Performance published by IGI Global (www.igi-global.com) USA, 2020, pp.177-237, 10.4018/978-1-5225-8551-0.ch007

PATENTS

1. Dr. N Gaonkar: Disclosure Title "A Method for islanding detection based on image classification with ensemble convolution neural networks "Inventors Santhosh K G Manikonda and D N Gaonkar (Application No (IPO): 201941036379 Date: 10th September 2019).

CONFERENCES

1. "Power Electronics Applications and Technology in Present Energy Scenario, PETPES 2019,1st International Conference, 29th-31st August 2019,Sponsored by TEQIP-III, Co-coordinator: Dr P Parthiban & Dr R Kalpana.

SEMINARS (EXPERT LECTURE)

Prof.B.G. Fernandez, Dept. of Electrical Engg. IIT Bombay "An Integrated Control Scheme for the PV Systems, 28th September 2019, Co-Coordinator: K N Shubhanga.

Dr. Bhavanishankar T, CPRI, Bangalore, Capacitors for Power Systems Applications, 28th September 2019, Co-Coordinator: K N Shubhanga & Prof. G S Punekar.

Prof.A.M. Kulkarni, Dept. of Electrical Engg., IIT Bombay, “”Power System Oscillations: Visualization using Wide Area Frequency Measurement Systems, 11th March 2020, Coordinator: K N Shubhanga.

Dr Ashoka K S Bhat, , Professor (University of Victoria)Canada, “Power Converters for Interfacing AlternateEnergy Sources to Utility Line”, 18th Feb 2020 Coordinator: Dr Nagendrappa Harischandrappa

WORKSHOPS

A Department Level Comprehensive Review process was held on 28th September, 2019. For this, Prof. BG Fernandez (EE Dept., IITB) and Dr. Bhavanishankar. T, Joint Director, CPRI, visited the department. It was a TEQIP-III sponsored programme.

Conducted the Pre NBA UG workshop on 11th March 2020. In this workshop, two experts from Academia, Prof AM Kulkarni, (IITB), Prof. Anup Kumar Panda, NIT Rourkela, two experts from industry, Mr. Swaminathan, Infineon Tech. Bangalore, Mr. Muraleedharan, KIOCL, Mangalore, and two alumni, Mr. Amith Kamath, Mathworks, and Ms. Akshata Kotharkar, ONGC, MRPL, have participated.

Administrative Responsibilities Of Faculty Members At The Institute Level

Prof. K. P. VITTAL: Standing Committee Member to frame guidelines and monitor MHRD funding scheme 2019, HEFA.

Dr. Nagendrappa H. “Faculty-in-Charge of Electrical works of NITK Surathkal.”

Dr. Tukaram Moger “Faculty-in-Charge of Institute Guest House, NITK Surathkal.”

ACHIEVEMENTS,AWARDS, CONTRIBUTIONS AND RECOGNITIONS

1. Dr. Krishnan CMC Recipient of Visvesvarya Young Faculty Fellowship Award Sponsored by MEITY, India.
2. Dr.Y. Suresh: Received Award for Research publication from Department of science and Technology, Government of Karnataka. (25000/-)
3. Prof. K. P. VITTAL: Invited talk “Role and Developments of Microgrid Controllers”, as part of an AICTE Sponsored Short Term Training Program (STTP) on “Control of Power Electronic Converters for Smart Power Systems” at NMAM Institute of Technology. Nitte, Udupi Dist. Karnataka, India 15th July 2019.
4. Prof. K. P. VITTAL: Invited talk “Frontier research areas in Power and Energy systems” EEE Faculty research orientation Initiative, Cambridge Institute of Technology, KR Puram, Bengaluru-560036, 27th June, 2019.
5. R Kalpana: POSOCO PPSA 2019 Award in Master Category. The award includes cash prize of Rs.30000/- and a citation , Miss. Khimavath Sai Chethana ,Thesis Title “Power quality improvements in AC Mains fed AC-DC rectifier using DC current injection technique”, 2019.
6. Dr Debashisha Jena: POSOCO award for a PhD student Mr. Prusty, 2019.
7. Dr G S Punekar: PhD Main Guide to a student Mr. TESFAYE NAFO TEFERA in Addis Ababa science and technology university, Addis Ababa, Ethiopia.
8. Dr G S Punekar: Invited talk to MESCOM engineering’s on the topic “Soil resistivity and Earth mat design” on 21st Sept 2019 as part of the Engineer’s day celebration at KEBEA Guest house Kavoor.
9. Dr G S Punekar: Invited-talk/Expert lecture at KIOCL on the occasion of National Energy Conservation Day celebration on 14th December 2019;

and received appreciation letters

10. Dr G S Punekar, Dr. Shubhanga KN, Dr. CMC Krishnan, Dr.A Karthikeyan, Dr. BV Perumal, Dr. Nagendrappa: Mentoring of 19 students from GEC-Jhalawar Rajasthan (Twinning institute under TEQIP-III) during summer vacation in the month of June 2019.
11. Dr G S Punekar: Appreciation letter from GEC-Jhalawar Rajasthan (Twinning institute under TEQIP-III) for reviewing their SAR of Electrical Engineering Department by Email communications.
12. Dr G S Punekar: POSOCO PPSA MARCH 2020 AWARD IN PHD CATEGORY, Student Name: Harimurugan. D
13. Dr. Yashwant Kashyap: Best paper award: Mr. Vishnu Sidharthan and Dr. Yashwant Kashyap, P "Brushless DC Hub Motor Drive Control for Electric Vehicle Applications" from International Conference on Power, Control and Computing Technologies (ICPC2T) conducted at NIT Raipur (January 3rd -5th ,2020).
14. Dr. Tukaram Moger: Elected to the grade of Senior Member of IEEE (USA) and IEEE Power & Energy Society (PES) by the Officers and the Board of Directors of IEEE in recognition of professional standing in 2019.
15. Dr. Tukaram Moger : Invited-talk "Impact of different PQ types models of wind turbine generating units on system voltage performance" Electrical Power Quality and Distributed Generation, Jawaharlal Nehru National College of Engineering, Shivamogga, (TEQIP 1.3 Sponsored five days faculty development Programme)16th -20th December 2019.
16. Dr. Tukaram Moger : Invited-talk "Fuzzy logic based reactive power and voltage control in grid connected wind farms to improve steady state voltage stability" Electrical Power Quality and Distributed Generation, Jawaharlal Nehru National College of Engineering, Shivamogga, (TEQIP 1.3 Sponsored five days faculty development Programme)16th -20th December 2019.
17. Dr. DN Gaonkar: Institute of Engineers (IE) India, Fellow (FIE), June 2019.
18. Dr. D N Gaonkar : Best Paper Award for the paper Titled "Power Quality Event Classification Using Long Short-Term Memory Networks " at IEEE DISCOVER 2019 Conference held at Manipal Institute of Technology, Manipal from 11-12 August 2019. A Certificate of merit along with a Cash Prize of Rs 3000/- is awarded. Authors Santhosh K G Manikonda, Joe Santhosh, Sanjayan Pradeep Kumar Sreekala, Siddharth Gangwani and Dattatraya N Gaonkar.
19. Dr. D. N. Gaonkar: Invited-talk "Grid Integrated operation of distributed generation Resource: Issues and challenges" Next Generation Energy Technologies, Jain College of Engineering, Belagavi, Karnataka, (Visvesvaraya Technological University under TEQIP 1.3) 12-13 October 2019.
20. Dr. D. N. Gaonkar: Invited-talk"Grid Integrated operation of distributed generation Resource: Issues and challenges"Control of Power Electronic converters for Smart Power Systems, NMAM Institute of Technology, Nitte-574110, (AICTE Sponsored Short Term Training Program),15th-20 July 2019.
21. Dr. D. N. Gaonkar: Invited-talk"Smart Grid operation and control: Demand Response"Resilient operation of electronically coupled systems in electrical power grid,National Institute of Engineering, Mysore, Karnataka, (TEQIP III, NIE Mysore), July 8 to 12, 2019.
22. Dr. B. Dastagiri Reddy: Invited-talk "Smart Integration of Renewable Energy Sources" Recent Trends in Smart Grid,NIT Nagaland, (TEQIP – III Sponsored National Level Workshop),24th-28th February 2020.
23. Dr Prajof P. : Invited-talk "Battery Management System and Power Train for Electric Vehicles"IET Workshop on Electric Vehicle Technology - Opportunity and Challenges,Alliance University, Bangalore,(IET Workshop),10th-11th Jan 2020.
24. Dr Prajof P. : Invited-talk "Battery Management System"Renewable Powered EV Charging Station-Challenges in Converter Design and

Storage, National Institute of Technology Calicut, Kozhikode,(NaMPET Phase III sponsored Short term course),10th to 14th March 2020.

25. Dr. Nagendrappa H:Elected to the grade of Senior Member of IEEE (USA) and IEEE Power & Energy Society (PES), Officers and the Board of Directors of IEEE, 2019.
26. Dr. A. Karthikeyan: Elected to the grade of Senior Member of IEEE (USA) and IEEE Power & Energy Society (PES),Officers and the Board of Directors of IEEE, 2019.
27. A few UG students have carried out their internship in abroad institutes such as University of Pennsylvania, USA, University of Illinois Urbana, Champaign, Illinois, Johns Hopkins University USA, University of Windsor.
28. Successfully conducted the Induction programme for the first year students during 25th July 2019 to 6th Aug. 2019.

FOREIGN VISITORS TO DEPARTMENT

Dr Ashoka K S Bhat, Adjunct Faculty – Professor (University of Victoria), Canada.September 2019-February 2020.

INDIAN VISITORS TO DEPARTMENT

Industry Expert:
Dr. Bhavanishankar T, Joint Director, CPRI, Bangalore, visited on 28th Sept., 2019 for Peer Review of the EE Dept.

Mr. Swaminathan Balasubramaniasarma,
Senior Staff Engineer Systems,
Infineon Technologies India Pvt. Limited, Bangalore, to participate in the Pre NBA UG workshop on 11th March 2020.

Shri Muraleedharan, DGM (Electrical), Blast Furnace Unit & Coordinator Energy Cell, KIOCL Ltd. Mangalore, to participate in the Pre NBA UG workshop on 11th March, 2020.

Academic Expert:
Prof. B G. Fernandez. Professor, IIT Bombay, visited on 28th Sept., 2019 for Peer Review of the EE Dept.

Prof. Anil M, Kulkarni.
Professor, IIT Bombay, to participate in the Pre NBA UG workshop on 11th March, 2020.

Prof. Anup Kumar Panda,
NIT Rourkela, to participate in the Pre NBA UG workshop on 11th March, 2020.
Alumni:

- Mr. Amith Kamath, MathWorks, India and Ms. Akshata Kotharkar, ONGC Mangalore Petrochemicals Ltd, to participate in the Pre NBA UG workshop on 11th March, 2020.

DEPARTMENT OF INFORMATION TECHNOLOGY

BOOK CHAPTERS:-

1. Shahzad Alam M., Ashwin T.S., Ram Mohana Reddy G. (2020), "Optimized Object Detection Technique in Video Surveillance System Using Depth Images". In: Elçi A., Sa P., Modi C., Olague G., Sahoo M., Bakshi S. (Eds.) Smart Computing Paradigms: New Progresses and Challenges. Advances in Intelligent Systems and Computing, Vol 766, pp. 19-27, Springer, Singapore. DOI:https://doi.org/10.1007/978-981-13-9683-0_3(https://link.springer.com/chapter/10.1007/978-981-13-9683-0_3)
2. Tushaar Gangavarapu, Aditya Jayasimha, Gokul S Krishnan and Sowmya Kamath S. (2019), TAGS: Towards Automated Classification of Unstructured Clinical Nursing Notes. In: Métais E., Meziane F., Vadera, S. (eds) Natural Language Processing and Information Systems. NLDB 2019. Lecture Notes in Computer Science, Springer, Cham
3. Krishnan G.S., Sowmya Kamath S. (2019) A Supervised Approach

for Patient-Specific ICU Mortality Prediction Using Feature Modeling. In: Hung J., Yen N., Hui L. (eds) Frontier Computing. FC 2018. Lecture Notes in Electrical Engineering, vol 542. Springer, Singapore

4. Ganesh, HB Barathi, et al. "MedNLU: Natural Language Understander for Medical Texts." Deep Learning Techniques for Biomedical and Health Informatics. Springer, Cham, 2020. 3-21. ISBN 978-3-030-33966-1.
5. Anand Kumar M, Shivkaran Singh, Praveena Ramanan , Vaithehi Sinthiya and Soman K. P Creating Paraphrase Identification Corpus for Indian Languages: Opensource Data Set for Paraphrase Creation, IGI, Source Title: Handbook of Research on Emerging Trends and Applications of Machine Learning. DOI: 10.4018/978-1-5225-9643-1.ch008
6. Dr. Bhawana Rudra "IMPACT OF BLOCKCHAIN FOR INTERNET OF THINGS SECURITY" in Cryptocurrencies and Blockchain Technology Applications 2020 (Pages: 99-127) Print ISBN:9781119621164 |Online ISBN:9781119621201 |DOI:10.1002/9781119621201 By Wiley Journal
7. Dr. Bhawana Rudra "Impact of Internet od Things in Smart Cities" in IoT Technologies in Smart Cities: From sensors to big data, security and trust,2020, 10.1049/PBCE128E_ch2, ISBN: 9781785618703 by IET journal
8. Bhawana Rudra and Thanmayee S Streamlining IPv6 Functionality for Low Power Nodes in IoT Architectures, Models, and Platforms for Smart City Applications Pages: 25 DOI: 10.4018/978-1-7998-1253-1.ch008 by IGI journal
9. Mamatha K M and Kiran M, A Firefly Optimization Algorithm for Maximizing the Connectivity in Mobile Wireless Sensor Network. In: Singh P., Bhargava B., Paprzycki M., Kaushal N., Hong WC. (eds) Handbook of Wireless Sensor Networks: Issues and Challenges in Current Scenario's. Advances in Intelligent Systems and Computing, Vol 1132, 2020, Springer, Cham, DoI: https://doi.org/10.1007/978-3-030-40305-8_10 Print ISBN 978-3-030-40304-1 Online ISBN978-3-030-40305-8

BOOKS PUBLISHED:

BOOKS EDITED

1. Jiacun Wang, G. Ram Mohana Reddy, V. Kamakshi Prasad, and V. Sivakumar Reddy, Soft Computing and Signal Processing - Proc. of ICSCSP 2018 (Vols. 1 & 2). Advances in Intelligent Systems and Computing, Springer Nature, Singapore, 2019.

REVIEWS:

Prof. G. Ram Mohana Reddy:

Journal Reviewer:

1. IEEE Transactions on Industrial Informatics (April 2019-Till Date)
2. Elsevier Journal of Simulation Modelling Practice and Theory (July 2019 - Till Date)
3. Elsevier Journal of Medical Informatics (Aug. 2019 - Till Date)
4. Elsevier Journal of Computer Communications (Sept. 2019-Till Date)
5. Hindwai Journal of Electrical & Computer Engg. (Oct. 2019 - Till Date)
6. Taiwan Academic Network, Ministry of Education, Govt. of Taiwan: Journal of Internet Technology (October 2019 - Till Date)
7. Taylor & Francis Journal of Experimental & Theoretical Artificial Intelligence Editorial Office (Sept. 2019 - Till Date)

Dr. Anand Kumar M:

- ACM Transactions on Asian and Low-Resource Language Information Processing
- Computer Speech & Language
- Computers & Electrical Engineering

- Engineering Applications of Artificial Intelligence
- Future Generation Computer Systems
- ICT Express
- Pattern Recognition
- Pattern Recognition Letters
- Sādhanā

STTPS (SHORT TERM TRAINING PROGRAMMES) / SCHOOLS

1. TEQIP-III sponsored five days Short-Term Program on “Applications of Data Mining and Deep Learning Technique in Multidisciplinary Area" organized by Dr. Nagamma Patil and Dr. Jaidhar C D during 24-28, June 2019.
2. Five Days Short Term Training Program on *Information Security and Machine Learning* during 10th-14th February -2020 at RTU Kota under Twinning activity with GEC Jalwar, TEQIP III by Dr. Nagamma Patil.

Conferences:

1. 8th International Conference on Frontiers in Intelligent Computing - Theory and Applications (FICTA 2020), January 4-5, 2020, Jointly organized by School of Management and Department of Information Technology NITK Surathkal

Seminars (National & International)

1. 1-Day Seminar on "Serverless Computing Applications" at NITK Surathkal, Nov. 27, 2019 organized by *Prof. G Ram Mohana Reddy*. Dr Piyush Harsh, Zurich Univ. of Applied Sciences, Switzerland is the resource persons of the event.

Workshops:

1. TEQIP-III Sponsored 5-Day Workshop on "Deep Learning for Big Data and Cyber Security Applications", NITK Surathkal, July 1-5, 2019 organized by Dr. *Bhawana Rudra, Dr. Anand Kumar M and Prof. G Ram Mohana Reddy*.Dr. B. M Mehtre- IDRBT, Hyderabad, Mr. Koshik Raj-UniteServe, Bangalore, Dr. Soman K P, Mr. Akarsh and Mr. Vijay Krishna Menon-CEN Amrita, Bharathi Ganesh HB and Mr. Shyam R-ARKNET, Pune, Mr. Malhar-Sophos, Bangalore, Mr. Vivek-Pramati Technologies are the resource persons of the event.
2. TEQIP-III Sponsored 5-Day Workshop on "Simulations in Computer Networks and Computer Architecture", NITK Surathkal, July 1-5, 2019 organized by Dr. *Kiran M, Dr. Basavaraj Talawar and Prof. G Ram Mohana Reddy*.
3. One Week National Workshop on "High Performance Computing and Applications (HPCA 2019)” held during August12-17, 2019 organized by Dr. Sowmya Kamath S and Dr. Geetha V. Mr. Naresh Shah, President-India (R&D), Hewlett Packard Enterprise, Mr. Mahesha Nanjundaiah, Director (Engineering), Hewlett Packard Enterprise, Mr. Harish Kamath, Master Technologist, Hewlett Packard Enterprise, Mr. Prashanth Tamraparni, Master Technologist, Hewlett Packard Enterprise, Dr. Vatsala H, CDAC Bangalore, Mr. Neelesh Nayak, Program Manager, Hewlett Packard Enterprise, Mr. Nliesh Negi, Software Architect, Hewlett Packard Enterprise, Mr. Vivek Sharma, Softare Architect, Hewlett Packard Enterprise, Mr. Tushaar Gangavarapu, NLP Engineer, Amazon Inc. are the resource persons of the event.
4. Two days Workshop on "*Computer Networks*" 22-23 October, 2019 organized by Dr. Geetha V and Dr. Sowmya Kamath. Mr. Harish Kamath, Master Technologist and Mr. Santosh Nagaraj, Expert Technologist, Hewlett Packard Enterprises, Bangalore are the resource persons of the event.
5. TEQIP-III Sponsored 5-Day Workshop on "Artificial Intelligence & Machine Learning Applications in the Emerging Areas of CSIT", NITK Surathkal, December 9-13, 2019 organized by Prof. G. Ram Mohana Reddy, Dr. Kiran M, Dr. Bhawana Rudra and Dr. Anand Kumar. Dr. Prakash Ragavendra, AMD, Bangalore, Dr.Sowmya V, Amrita, Coimbatore, Mr.SRIVATSHA GUNDA, SAP labs Bangalore, Mr.Sajith

Variyar, Amrita, Coimbatore, Mr. Mayur Patil, (Chief Electrol Officer, Bangalore are the resource persons of the event.

6. AICTE Sponsored 5 Days Workshop on "Block Chain Technology" held during December 16-20, 2019 organized by Dr. Bhawana Rudra.Dr. Ashuthosh Bahuguna, Scientist- B, CERT-in Delhi, Dr. Hiran V Nath, Assistant Professor, NIT Calicut, Mr. Vishesh, HP-Bangalore, Mr. Koshik Raj, CEO, UniteServe, Bangalore are the resource persons of the event.

Other Event:

1. Prof. G Ram Mohana Reddy organized by Induction Program for 1st Year B.Tech Students, NITK Surathkal, July 25-Aug. 5, 2019
2. Dr. Sowmya Kamath S, Faculty Convener for NITK National-level Hackathon, "*HackVerse 2020*" (January 25-26, 2020)
3. Dr. Sowmya Kamath S, Faculty-in-charge for Hewlett Packard Enterprise (HPE) sponsored High Performance Computing Lab Inauguration (17th August 2019)
4. Dr. Nagamma Patil organized an Alumni Talk/Expert Lecture on "Feature Selection Techniques for Biomedical Data" by Mr. Tushaar Gangavarapu – NLP Research Engineer, Amazon.com, Inc on 6/01/2020

FOREIGN VISITORS TO DEPARTMENT:

1. Prof. Venkat N Gudivada, Professor and Chair, Department of Computer Science, East Carolina University, Greenville, USA visited department on 6th January 2020.

VISIT TO ABROAD (FACULTY):-

1. Prof. G. Ram Mohana Reddy visited IFM Cambridge, UK during June 2019 for Leadership Programme in a Complex and Changing World. Also research interaction with Professors of Cambridge University, UK.
2. Dr. Sowmya Kamath S visited Hong Kong for paper presentation at 2019 Conference on Empirical Methods in Natural Language Processing during November 3-7, 2019. (Core A* Conference)

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

Book Chapters:

1. M. Prasanna Lakshmi and D. Pushparaj Shetty, Parallel Processing for Range Assignment Problem in Wireless Sensor Networks, Intelligent System and Computing, Intech open Publishers.
2. KS Prashanthi, G. Chandhini, Regularization of highly ill- conditioned RBF asymmetric collocation systems in fractional models, Advances in Mathematical Methods and High Performance Computing, V K. Singh, D. Gao, A. Fischer (Editors), Vol 41, 105-116, 2019, Springer.

Books Published:

1. Argyros. I. K, George.S , Mathematical modeling for the solution of equations and systems of equations with applications, Volume-III, Nova Publishes, NY, 2019 NY, ISBN: 978-1-53615- 942-4.
2. Argyros. I. K, George.S ,Mathematical modeling for the solution of equations and systems of equations with applications, Volume-IV , Nova Publishes, NY, 2020 NY , ISBN: 978-1-53617-474-8

E-Print Archives:

1. K. Mahesh Krishna and P. Sam Johnson**,** "Multipliers for operator-valued Bessel sequences, generalized Hilbert-Schmidt and trace classes", *arXiv*, Cornell University Library, DOI: arXiv:1908.11059, Aug 2019
2. K. Mahesh Krishna and P. Sam Johnson**,** "Extension of frames and bases-II", *arXiv*, Cornell University Library, DOI: arXiv:2001.05128, Jan 2020

Reviews:

1. Dr. P. Sam Johnson, "[Review of the paper: Quasi-compactness of Linear Operators on Banach Spaces. New Properties and Application to Markov Chains, by Leila Mebarki , Bekkai Messirdi and Mohammed Benharrat]", *Asian-European Journal of Mathematics*, published online, May 2020.
2. Dr. P. Sam Johnson,"[Review of the paper : From Sommerfeld Diffraction Problems to Operator Factorisation, by Frank-Olme Speck]", *Constructive Mathematical Analysis*, Vol. II, Issue IV, pp 183-216, December 2019.
3. Dr. Murulidhar N.N., " [Review of the book: Adaptation process of Probability and Stochastic Processes by Roy D. Yates, David J. Goodman]", December 2019
4. Dr. Jothi Ramalingam, Random-Telegraph-Noise-enabled true random number generator for hardware security" submitted to Scientific Reports journal from the publishers of Nature.
5. Dr. Chandhini G., Reviewed articles for journals like: "BIT Numerical Mathematics", "Pramana - Journal of Physics", Journal of Computer Vision and Robotics.
6. Dr. Srinivasa Rao Kola, "[Review of the paper: On the radio graceful labelling of graphs]" AKCE International Journal of Graphs and Combinatorics.
7. Dr. Srinivasa Rao Kola, "[Review of the paper: The radio coloring problems on some graphs]" AKCE International Journal of Graphs and Combinatorics.
8. Dr. Srinivasa Rao Kola, "[Review of the paper: On the centroid of increasing trees]" Mathematical Reviews/MathSciNet.
9. Dr. Srinivasa Rao Kola, "[Review of the paper: A new graph radio *k*-coloring algorithm]" Mathematical Reviews/MathSciNet.

Visits by the faculty to abroad:

1. Dr. Jidesh P., July, 2019, Visited Spain to present a paper in ICIAM-2019.
2. Dr. R. Madhusudhan, attended IEEE 10th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON0 and presented a paper during October, 2019, in New York, USA,

DEPARTMENT OF MECHANICAL ENGINEERING

BOOKS PUBLISHED

1. Gajanan Anne, S. Ramesh, Goutham Kumar, Sandeep Sahu, Ramesh M. R., Shivananda Nayaka H., Shashibhushan Arya, Development, Characterization, Mechanical and Corrosion Behaviour Investigation of Multi-direction Forged Mg–Zn Alloy, V. Joshi et al. (eds.), Magnesium Technology 2019, The Minerals, Metals & Materials Series, doi.org/10.1007/978-3-030-05789-3_50, Springer Link.
2. R.K Sahu, Vijay Kumar Pal, Pankaj Kumar, Micro-structural and Size Accuracy Study of Electro-Chemical Machined Aluminium Alloy Features, 2019, In Advances in Micro and Nano Manufacturing and Surface Engineering, Series Editor: J. Paulo Davim, Lecture Notes on Multidisciplinary Industrial Engineering, pp721-729, doi.org/10.1007/978-981-32-9425-7_65, Springer Nature, Singapore.
3. Ranjeet Kumar Sahu, Somashekhar S. Hiremath, Corona Discharge Micromachining for the Synthesis of Nanoparticles: Characterization and Applications, 1st Edition, Print ISBN -9780367224738; eBook ISBN – 9781000065404, DOI: 10.1201/9780429275036, CRC Press, Taylor & Francis, Boca Raton, New York, 2019.
4. Santosh Chavan, Veershetty G., Perumal D.A., Numerical Analysis of Composite Phase Change Material

in a Square Enclosure, 2020, In: Singh S., Ramadesigan V. (eds) Advances in Energy Research, Springer Proceedings in Energy book series, pp 359-370, doi.org/10.1007/978-981-15-2666-4_35, Springer Nature, Singapore.
5. Maniyeri R., Kang S., Numerical Study on the Behavior of an Elastic Capsule in Channel Flow Using Immersed Boundary Method, 2020, In: Suryan A., Doh D., Yaga M., Zhang G. (eds) Recent Asian Research on Thermal and Fluid Sciences, Lecture Notes in Mechanical Engineering, pp 117-124, doi.org/10.1007/978-981-15-1892-8_10, Springer Nature, Singapore.
6. Kanchan M., Maniyeri R., Dynamics of Flexible Filament in Viscous Oscillating Flow, 2020, In: Suryan A., Doh D., Yaga M., Zhang G. (eds) Recent Asian Research on Thermal and Fluid Sciences, Lecture Notes in Mechanical Engineering, pp 147-160, doi.org/10.1007/978-981-15-1892-8_13, Springer Nature, Singapore.
7. Kolke D. K., Arun M., Maniyeri R., Numerical Analysis of Pulsating Flow in a Smooth Constriction Using Immersed Boundary Method, 2020, , In: Suryan A., Doh D., Yaga M., Zhang G. (eds) Recent Asian Research on Thermal and Fluid Sciences, Lecture Notes in Mechanical Engineering, pp 237-249, doi.org/10.1007/978-981-15-1892-8_20, Springer Nature, Singapore.
8. Dhruv V., Mishra U., Maniyeri R., Numerical Study on Fluid Flow Through Collapsible Channels, 2020, In: Manna S., Datta B., Ahmad S. (eds) Mathematical Modelling and Scientific Computing with Applications, Springer Proceedings in Mathematics & Statistics, pp 199-206, doi.org/10.1007/978-981-15-1338-1_15, Springer Nature, Singapore.
9. Harsha Kumar M. K., Vishweshwara P.S., Gnanasekaran N., A Surrogate Forward Model Using Artificial Neural Networks in Conjunction with Bayesian Computations for 3D Conduction-Convection Heat Transfer Problem, 2019, In: Das K., Bansal J., Deep K., Nagar A., Pathipooranam P., Naidu R. (eds) Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing, pp 373-384, doi.org/10.1007/978-981-15-0184-5_33, Springer Nature, Singapore.
10. Debasish Mahapatra, Ashok Babu T.P., Variation of Time Lag, Decrement Factor and Inside Surface Temperature with Solar Optical Properties of Building Envelope in Different Climatic Zones of India, 2020, In: Reddy A., Marla D., Simic M., Favorskaya M., Satapathy S. (eds) Intelligent Manufacturing and Energy Sustainability, Smart Innovation, Systems and Technologies, pp 523-532, doi.org/10.1007/978-981-15-1616-0_51, Springer Nature, Singapore.
11. Sharmas Vali Shaik, Ashok Babu T.P., Theoretical Evaluation of Energy Performance of a Vapour Compression Refrigeration System Using Sustainable Refrigerants, 2020, In: Reddy A., Marla D., Simic M., Favorskaya M., Satapathy S. (eds) Intelligent Manufacturing and Energy Sustainability, Smart Innovation, Systems and Technologies, pp 361-370, doi.org/10.1007/978-981-15-1616-0_35, Springer Nature, Singapore.
12. Debasish Mahapatra, Ashok Babu T.P., Effect of Solar Optical Properties of Building Envelope on Time Lag, Decrement Factor and Energy Saving of Buildings, 2020, In: Vinyas M., Loja A., Reddy K. (eds) Advances in Structures, Systems and Materials, Lecture Notes on Multidisciplinary Industrial Engineering, pp 127-142, doi.org/10.1007/978-981-15-3254-2_13, Springer Nature, Singapore.
13. Veeresh Nayak C., Manjunath Patel G.C., Ramesh M.R., Desai V., Samanta S.K., Analysis and Optimization of Metal Injection Moulding Process, 2019, In: Gupta K. (eds) Materials Forming,

Machining and Post Processing, Materials Forming, Machining and Tribology, pp 41-74, doi.org/10.1007/978-3-030-18854-2_2, Springer, Cham.Nil

PATENTS:

1. Anish S, Swirl Generator for Human Arterial Network, App. No.201841010102; Dated 20/03/2018, Filed,2018
2. Anish S, Dual fence with tapered trailing edge for turbine /compressor blade passage, App. No. 201841003526; Dated 30/01/2018, Filed
3. Sathyabhama A, A PASSIVE LEADING EDGE MICRO PROTUBERANCE STRIP, App. No.201741035860, Filed, 2017
4. Gangadharan K V, A Nerve Trimming Kit 2.01741E+11, Filed, 2017
5. Gangadharan K V, Multi Material Structure with Controllable Multi Directional Property, 2.01741E+11, Filed, 2018
6. Gangadharan K V, Automated Illizarov Apparatus, 2.01641E+11, Filed, 2017
7. Gangadharan K V, Variable stiffness MRE spring device, C.000602, Filing, 2018
8. Gangadharan K V, MRE Torsional Isolator, C.000657, Filing, 2019

STTPS (SHORT TERM TRAINING PROGRAMMES)/SCHOOLS

- Dr. Mruthyunjaya Swamy K B and Dr. Pramod K, TEQIP-III sponsored Five days short term technical programme at Government college of Engineering, Jhalawar, Rajasthan, 11-15 Feb 2020, 5 days.

CONFERENCES

- Prof. G. C. Mohan Kumar; Joint Secretaries: Design Engg : Dr. S. M. Murigendrappa and Dr. Subhashchandra Kattimani; Materials Engg : Dr. P. Jeyaraj and Dr. M. R. Ramesh; Manufacturing : Dr. M.R. Doddamani and Dr. Sharnappa Joladarashi;Second International Conference on Design, Materials & Manufacture (ICDEM 2019), NITK-Surathkal, 6-8 Dec 2019, 3 Days.

WORKSHOPS:

- Dr. N. Gnanasekaran, National Workshop on Intelligent Optimization Techniques for Engineering Problems, NITK, Aug 19-21, 3 Days.
- Dr. K V Gangadharan and Pruthviraj U, Virtual Lab Workshops at different institutions all the over India, 01Apr2019 to 30Mar2020, 1day each for total of 52 days.

FACULTY DEVELOPMENT PROGRAMME

- Dr. N. Gnanasekharan, Dr. Srikanth Bontha, Dr. Sudhakar Jambagi, Dr. Somasekhara Rao Todeti, Frontiers in Design, Manufacturing and Energy Sustainability, NITK, September 3-7, 2018 TEQIP-III

GIAN COURSE

- Dr. Subhaschandra Kattimani & Prof. S.M. Murigendrappa, Aeroelasticity-Fundamentals and Topics on Nonlinear Problems by Dr. Flavio D. Marques, USP Brazil, NITK, 12th - 16th , Nov 2018
- Dr. Mrityunjay Doddamani, Dr. P. Jeyaraj, Dynamic response of advanced composites, NITK, 10-14, December 2018

DEPARTMENT OF MINING ENGINEERING.

WORKSHOP:-

- One day workshop was conducted on 20th Jan 2020 to review M.Tech curriculum in Industrial Health & Safety Engineering curriculum

- 1st SME- NITK Annual Convention (Seminar) was held on 6-7 March, 2020

Visit to ABROAD(Faculty)

1. Prof. Ch, S. N. Murthy visited USA to present a paper on "Prediction of Load-Haul-Dumper (LHD) Machine Performance Characteristics using Feed-Forward-Back- propagation ANN Model" during International conference on "27th International Conference on Electronics, Artificial Intelligence & Robotics (ICEAIR)" during 16th and 17th December 2019 at New York, USA.

Foreign Visitors to Department

Mr. Sudheer Kumar Gulwade, Group Head & CEO, African Industries Group Limited- Abuja-Nigeria has visited the Department on 7th March, 2020 and interacted with faculty and students.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Books Published :

A. Surendran, S. Janakiraman, S. Anandhan, *'Separator Electrolyte Systems for Rechargeable Batteries'*, ISBN: 9786200091239, Lambert Academic Publishers, Mauritius, 2019.

Workshop on"Advanced Materials and Characterization Techniques (AMCT 2019)", on August 7 – 11, 2019
Conveners:
Prof. Udaya Bhat K.
Dr. M. Rizwanur Rahman
Dr. Saumen Mandal
National Seminar on "Frontiers in Materials" during 29th to 30th October, 2019.
Conveners:
Prof. K. Narayan Prabhu

Workshop on "Advanced XRD Theory, Practical and Training 2020" during 20 – 24 January, 2020.
Conveners:
Prof. Udaya Bhat K.
Dr. M. Rizwanur Rahman
Dr. B. Rajasekaran

Two-day Workshop on "Effective Digitization of Course Content for Blended Learning and Flipped Classroom" (Sponsored by TEQIP-III) for Faculties.
Organizers: Dr. Sumanth Govindarajan (Dept. MME) and Dr. Krishnan C.M.C (Dept EEE) 9th and 10th March 2020.

Foreign Visitors to Department:

1. Dr. Dhavala Suri, Post-Doctoral Associate, Francis Bitter Magnet Laboratory and Plasma Science and Fusion Center, Massachusetts Institute of Technology, Cambridge, USA – 28th June 2019.

2. Dr. Wayne Chen, Director of Research and Managing Director, Asia – Pacific Operations Dynamic System Inc., USA- 30th July, 2019

Visit to Abroad (Faculty):

1.Prof. A. O. Surendranathan attended International Conference on "Graphene and Novel Nanomaterials" (GNN 2019) at Bangkok, Thailand during 8 to 11 July, 2019.

2. Prof. A. O. Surendranathan attended and presented a paper titled on "Ocean contained nuclear farms integrated with global free gravity transportation – restoring climate health to the best condition" in an International Conference on Climate Change and Role of Nuclear Power at IAEA Headquarters, Vienna, Austria during 7 – 11 October, 2019.

3. Prof. K. Narayan Prabhu attended and presented an oral research paper on "A comparative study on cooling performance of hot oil and molten salt media for industrial heat treatment" in the International Conference on "ASM Heat Treat 2019" at COBO Centre,

Detroit, Michigan, USA during 15 – 17 October, 2019.

SCHOOL OF MANAGEMENT

Book Chapters:-

Vadivel S.M., and Sequeria A. H. (2019) "A Novel Approach for Operational Performance Mail Processing Facility Layout selection using Grey Relational Analysis: A Case on India Speed Post Service Industry", Advances in Intelligent Systems and Computing, Springer publishers, vol.940, pp.1123-1132, DOI: https://doi.org/10.1007/978-3-030-16657-1_105.

Vadivel S.M., Sequeria A. H, Sunil Kumar Jauhar. (2019) "Metaheuristic for Optimize the India Speed Post Facility Layout Design and Operational Performance Based Sorting Layout Selection Using DEA Method", Advances in Intelligent Systems and Computing, Springer publishers, vol.941, pp.1035-1044, DOI: https://doi.org/10.1007/978-3-030-16660-1_101.

Anish, B.Majhi and Ritanjali Majhi , A novel hybrid model using RBF and PSO for net asset value prediction Intelligent Systems: Concepts, Methodologies, Tools, and Applications

Arjun R, Suprabha K. R, "Financial Technology Implications: Emerging Markets Context", in *Financial Technology and Disruptive Innovation in ASEAN, Hershey, PA: IGI DOI: 10.4018/978-1-5225-9183-2.ch002*., Aug 2019

Arjun R, Suprabha K. R, Modelling Hybrid Indicators for Stock Index Prediction, Advances in Intelligent Systems and Computing, *940, Springer, April 2019.*

Doddahulugappa Goutam and Gopalakrishna BV, "Examining the Mediating Roles of E-Satisfaction. E-Trust and E-Commitment of Cognitive Loyalty Development", Marketing Mix New Trends of 21st Century, Skirec Publications 2019, pp 7-32, ISBN: 978-93-87176-42-3

Doddahulugappa Goutam and Gopalakrishna BV,"Website Recommendation: Antecedents of Emotional Satisfaction and Repurchase Intention among Working Adults Online Shoppers", Marketing Mix New Trends of 21st Century, Skirec Publications 2019, pp 147-56, ISBN: 978-93-87176-42-3

Doddahulugappa Goutam and Gopalakrishna BV, "Will you Trust the Faceless? Exploration of Antecedents and Consequences of E-Trust in E-commerce Environment", Marketing Mix New Trends of 21st Century, Skirec Publications 2019, pp 223-239-32, ISBN: 978-93-87176-42-3

Bhat, Savita, "Firm-Specific Determinants of R&D Behaviour of Foreign Affiliates in India", in *FDI, Technology and Innovation*, DOI: 10.1007/978-981-15-3611-3_7, Springer Nature, 2020, pp 145-167, ISBN: 978-981-15-3610-6

OTHERS

Prof. Shashikantha Koudur - Invited lecture at the Department of English, Kuvempu University, Shimogga, on 'Translation and the Postcolonial Context'

STTPS (SHORT TERM TRAINING PROGRAMMES)/SCHOOLS

International Summer University Program in the School of Management, National Institute of Technology Karnataka, by Dr. Dhishna Pannikot in collaboration with University of Applied Sciences Western Switzerland, School of Business and Engineering Vaud (HEIG-VD), Switzerland, 09th-19th February 2020.

CONFERENCES

Dr. Ritanjali Majhi, Dr. Pradyot Ranjan Jena, Dr. Suprabha K.R., Dr. Rashmi Uchil are Organizing chair for the International Conference Frontiers of intelligent computing : theory and Applications-FICTA 2020, January 3-4,2020.

Dr Dhishna Pannikot was the resource person on "New Literatures in English" in the One Day National Conference on "New Literatures in English" Department of English, Siri PSG Arts and Science College for Women, Salem, Tamilnadu, 24th February 2020.

SEMINARS (NATIONAL & INTERNATIONAL)

Dr Dhishna Pannikot delivered an invited talk on "Emerging Perspectives of Research in Studying Literature and Environment" in the Two Day National Seminar on "Transcending the Borders of Canon: A Trans-epistemic Approach to Nature" organised by the Department of English, Govt. College Kasargod, Kasargod, Kerala, 21st November 2019.

Dr Dhishna Pannikot delivered an invited talk on "Future Prospects for Research in Postcolonial Studies" in the Two Day National Seminar on "Post-Colonial Paradigms" held organised by the Department of English, Shri Vijay Vidyalaya College of Arts & Science, Dharmapuri, Tamilnadu, 1 -2 March 2019.

Kiran Raveendran and Dhishna Pannikot "Exploring Third Gender Politics in Indian Cinema: A Comparative Study of Chitrangada and Naanu Avanalla Avalu" International Interdisciplinary Conference on "Recent Research in Arts, Culture, Literature, Languages, Philosophy, Spirituality and Education" Dr G. C. Mishra Educational Foundation at Jawaharlal Nehru University, New Delhi, 3rd August 2019.

WORKSHOPS

A One Day Workshop organized jointly by School of Management, NITK Surathkal and Department of Agriculture and Farmers' Empowerment, Ministry of Agriculture, Odisha on 13th January, 2020, Dr. Pradyot Ranjan Jena.

A 5 days workshop on "Management Development Program for Middle Management" held during January 13th - 17th, conducted in collaboration with Executives of @MRPL_CC Mangalore on Transformational Leadership, NITK Surathkal by the coordinators Dr. Suprabha K.R. & Dr. Rashmi Uchil.

A 5 days workshop on "Management Development Program for Middle Management" held during January 20th - 24th, 2020, conducted in collaboration with Executives of @MRPL_CC Mangalore on Transformational Leadership, NITK Surathkal by the coordinators Dr. Suprabha K.R. & Dr. Rashmi Uchil.

Talk

Expert Talk on" Kaizen and 5 S Model" byMr. Anantpadmakar Ayyo,Trainer & Consultant, Tuesday, 27th August 2019.

Expert Talk on "HR Metrics" by Mr. Praveen Kamath,General Manager & HR Head - Global Delivery & Enablement at WiproLimited, Saturday, October 12th 2019.

Expert Talk on "Balanced score card deployment" by Mr. K. Krishnamoorthy Aithal,Alumni of NITK, Surathkal, Monday, 6th January 2020.

Constitution Day:

Constitution Day- The Philosophy of Indian Constitution, on November 26th 2019, Coordinated by Prof. Shashikantha Koudur.

FOREIGN VISITORS TO DEPARTMENT

Prof. Shunsuke Managi (KYUSHU UNIVERSITY) visited the School of Management during 3 – 18, December 2019 under the SPARC project sponsored by MHRD, GOI. PI – Dr. Pradyot R. Jena and Co-PI- Dr. Ritanjali Majhi.

VISIT TO ABROAD (Faculty):-

Dr Dhishna Pannikot, Associate Professor in English, SoM delivered a keynote speech on "Advances in Research in Comparative Literature" in the Two Day International Seminar on "Language and Literature Studies" organised by Global Academic Research Institute at Galle Face Hotel, Colombo, Sri Lanka, December 17-18, 2019.

Dr. Pradyot Ranjan Jena, Associate Professor in School of Management, attended PEGNet Conference in Bonn, Germany, September 9-10, 2019.

DEPARTMENT OF PHYSICS

INTERNATIONAL CONFERENCE:-

Prof. M. N. Satyanarayan & Dr. Kartick Tarafder, International Conference, Current Trends in Functional Materials, 15-01-2020 to 17-01-2020 NITK Surathkal, DST-SERB, Anton-Paar, Carl-Zeiss, Advanced RealTekSystems.

Foreign Visitors to Department

International Conference Prof. Thomas A Jung, Paul Scherrer Institute, Switzerland, 15-01-2020 to 17-01-2020.

International Conference, Prof. Ulrich Nowak, University of Konstanz, Germany 15-01-2020 to 17-01-2020

Indian Visitors to Department

Expert Lecture Prof. Subhasis Ghosh, Professor, School of Physical Science Jawaharlal Nehru University, New Delhi April 1, 2019.

Prof. Rajendra Singh, Associate Professor, Department of physics, Indian Institute of Technology, Delhi Hauz Khas, New Delhi, 110016, India, Academic Audit 2019-2020 04-10-2019.

Dr. A S Prakash, Principal Scientist CSIR CECRI-Madras unitCSIR Madras Complex Taramani, Chennai, Academic Audit 2019-2020, 04-10-2019

Dr. R Venkataraghavan, HUL Bangalore & Adjunct Faculty IIT Palakkad, Academic Audit 2019-2020, 04-10-2019

Prof. Deshdeep Sahdev, Professor, Dept of Physics, IIT Kanpur, Expert Lecture, 31-10-2019

Dr. Biplab Sanyal, Senior Lecturer/Associate Professor at Department of Physics Astronomy, Materials Theory, Uppsala University, Sweden, International Conference, 15-01-2020 to 17-01-2020

Prof. Subhasis Ghosh, Professor, School of Physical Science Jawaharlal Nehru University, New Delhi, International Conference, 15-01-2020 to 17-01-2020

Prof. Indra Das Gupta, Senior Professor, Indian Association for the Cultivation of Science, Jadhavpur, Kolkata, International Conference, 15-01-2020 to 17-01-2020

Prof. Subhradip Ghosh, Professor, Department of Physics, IIT Guwahati, International Conference, 15-01-2020 to 17-01-2020

CONSULTANCY PROJECTS

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

1. Dr. Jidesh P, Generalized framework for restoring medical and satellite images corrupted by data correlated noise, DST, Budget : 17,43,070/-, 2017-2020.
2. Prof. Santhosh George and Dr. Jidesh P., Efficient Regularization methods for ill-posed Operator Equations and their Applications, DST, Budget: 18,46,020/-, 2018-2021.
3. Dr. V. Murugan, Applications of Kneading Theorey in Iterative Root Problems Sponsored by SERB, DST, India(4.18 Lacs)

DEPARTMENT OF MINING ENGINEERING

1. Monitoring of blasting operations of railway tunnel at Kulshekara, Mangalore, Southern Railway, Mangalore (Dr. K. Ram Chandar).
2. Assessment of intensity of ground vibrations from blasting operations in Quarry (Survey No. 172, Lease no. DKD/66 (1) Pane Mangalore Village, Bantwal Taluk, DK Dist, (Dr. K. Ram Chandar).
3. Assessment of Intensity of Blasting Operations in Stone Quarry- Lease No. Dkd-344, Survey No. 26/1a3p1 in Kabaka Village, Puttur Taluk, DK-Dist, (Dr. K. Ram Chandar).
4. Scientific study for stability analysis of benches ofVyasanakere Iron Ore Mine of M/S. MSPL Limited, Hospet, (Dr. K. Ram Chandar).
5. Stability analysis of benches of Iyli Gurunath Iron Ore Mine of M/S. RMML Limited, Hospet, (Dr. K. Ram Chandar). Assessment of Impact of Blasting Operations in Bharathi Limestone Mine on Surrounding Structures, Bharathi Cements, Kadapa, AP, (Dr. K. Ram Chandar).
6. Scientific study for the stability of structures falling within 45m (upto 3m) of proposed working of inland Mining at Manavalakurichi Llmenite Mine, IREL Limited, (Dr. K. Ram Chandar & Prof. Harsha Vardhan).
7. Scientific study for slope stability, OB dumps and highwalls at KTK OC III of BHPL Area, SCCL, (Dr. K. Ram Chandar).
8. Scientific study for design of ultimate pit slope, OB dump slope and monitoring of stability of pit and dump at KTK OC-II project, Bhupalpalli Area, SCCL, (Dr. K. Ram Chandar).
9. Assessment of ground vibrations generated due to excavation activity at JC Road, Bangalore, TJN Construction Pvt Ltd-Bangalore, (Dr. K. Ram Chandar).
10. Assessment of ground vibrations generated due to Blasting in Palakkal Quarry in Kozhikode District of Kerala, (Dr. K. Ram Chandar).
11. Assessment of ground vibrations generated due to Blasting in the Quarry of Kenneth Industries, Malappuram District of Kerala, (Dr. K. Ram Chandar).

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

1. Dr. Subray Hegde - 'Life Extension of K-Type Thermocouple' for MRPL, Mangalore - Rs.20,00,000/- (on going)
2. Dr. Subray Hegde - 'Failure of CO2 Compressor' for MCF, Mangalore - Rs.2,42,000/- (on going)
3. Dr. Subray Hegde, Rakshan Kumar & Preetish D'Silva - 'Analysis of Inclusion in Steam Turbine Generator' for MRPL, Mangalore - Rs. 3,30,400/-.
4. Dr. Subray Hegde, Basavaraj & Rakshan Kumar – 'Failure Analysis of

Cooling Water Pump' for MRPL, Mangalore - Rs.5,31,000/-.

5. Dr. Subray Hegde, Basavaraj & Rakshan Kumar – 'Inclusion Analysis of Turbine Blade Material' for MRPL, Mangalore - Rs.2,65,500/-.
6. Dr. Subray Hegde, Sumanth Govindarajan, Basavaraj, J.K. Rakshan Kumar- 'Failure of CT Fan Arm' for MRPL, Mangalore – Rs.7,78,800/-
7. Dr. Subray Hegde, Pavan R. Sondar, Rakshan Kumar & Preetish D'Silva – 'Standard Brinell Hardness Measurement of Thermit Welded Rail Specimen' for Konkan Railway Corporation Limited, Karwar, Rs.1,88,800/-
8. Dr. Subray Hegde,Rakshan Kumar & Preetish D'Silva – 'Cathodic Protection of Heat Exchanger H204' for MCF, Mangalore – Rs.1,94,700/-
9. Investigators: Sumanth Govindarajan and Subray Hegde - Testing of coatings on woven Gabion box mesh wires for Southern Railways Worth ~Rs 23, 000/- Dec 2019.
10. Investigators: Akshay Hegde, Adithya Dev, Sumanth Govindarajan and Subray Hegde "Failure analysis of centrifugal water pump shaft" for MRPL (Report submission pending).
11. Pavankumar R Sondar, Ganesh, Rakshan Kumar, Basavaraj, Sumanth Govindrajan, Subray R. Hegde - "Failure investigation of KRCL flash butt welded joints"
12. "Failure of FRP fin fan blades at CHTU"

DEPARTMENT OF PHYSICS:-

Dynamics of Low Energy Antifibrillation Pacing, DST – SERB, Dr. T K Shajahan, Jan 2017 to Jan 2020, 28 Lakhs.

Transition Metal Oxide Based Devices for Nonvolatile Resistive Random Access Memory
Applications, SERB, Partha P Das, 2017-2020, 38 lakhs.

Design and Fabrication of Two Terminal Thin Film Based Nonvolatile Memory Devices, VGST, Partha P Das, 2020-2022, 5.0 lakhs.

Developmennt and Characterization of advance solar cell, UGST, Dr. S n Murthy, Dr. M Aruna & Dr. Kartick Taradfer, Dec.- 2017 -0Dec 2020, 30 Lakhs

15 HUMAN RESOURCE DEVELOPMENTS

15.1 TRAINING STATUS

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Dr. Annappa attended a workshop on Smart Classroom at IIT Bombay on 24-25 June 2019

Dr. Annappa and Dr. Shashidhar G Koolagudi attended training programme on Scientific Perspective on Mind Meditation and Human Value at IIT-Delhi during 20-25 October 2019

Dr. Basavaraj Talawar attended Technical Workshop for Young Faculty Research Fellows of Visvesvaraya PhD Scheme held at IISc, Bangalore during 10th May 2019.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Dr. Rathnamala Rao, Department of E&C Engg., attended International workshop on "The Physics of Semiconductor Devices" (IWPSD 2019) at Kolkata, December 16-20, 2019.

Dr. U Shripathi Acharya Department of E&C Engg., attended workshop "DRDO – Academia Interaction for achieving leadership in future Technologies" at DRDO Bhawan, New Delhi, 13th November 2019.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Prof. K P Vittal attended a training program 'Leadership for Academician Program (LEAP)' held during 25th Feb. to 9th March, 2020, at IIT Bombay, supported by MHRD GOI.

Dr. Krishnan CMC attended a "Technical Workshop of YFRFs of Visvesvaraya PhD scheme", IISc, Bangalore, 9th -10th May 2019.

Dr. Krishnan CMC: "Visvesvaraya PhD Scheme: WORKSHOP FOR PRESENTATIONS OF RESEARCH WORK of Visvesvaraya PhD Scholars, Invited all Young Research Fellows" Punjab Engineering College, Chandigarh, 17th - 19th, July 2019.

K.Malinga Naik, Asst. Engg., (SG-1) attended 'Capacity Building training for Non-Teaching, Administrative and Finance Staff, Librarians, Lab Technicians' held at Gangtok, Sikkim, during 19-06-2019 to 23-06-2019.

Dr. Jora M. Gonda attended a Faculty Development Programme on Machine Learning held at IIM, Bangalore during 20th to 25th of May 2019.

DEPARTMENT OF INFORMTION TECHNOLOGY

1 Prof. G. Ram Mohana Reddy attended Indian Institute of Technology Kharagpur: Leadership for Academicians Programme (LEAP-2019), IIT Kharagpur, India, May 12-24, 2019.

2 Prof. G. Ram Mohana Reddy attended Cambridge University, United Kingdom: Leadership in a Complex and Changing World (LEAP-2019), IFM and St. John's College, Cambridge University, June 2-7, 2019.

3 Prof. G. Ram Mohana Reddy attended National Board of Accreditation, New Delhi: Orientation Workshop on Outcome Based Education and Accreditation, India Habitat Center, New Delhi, August 31, 2019.

DEPARTMENT OF MINING ENGINEERING

Dr. S. Kumar Reddy has joined as faculty member in Sept, 2020.

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

Dr. Jothi Ramalingam attended IITM-RBCDSAI's International Summit on Data Science and AI (held online) during 18-20, June 2020.

Dr. Vishwanath K. P. attended the Innovation Ambassador Program organized by MHRD Innovation Council at ACS College, Bangalore on 26th and 27th February, 2020.

SCHOOL OF MANAGEMENT

Dr. S. Pavan Kumar has attended Management Development Program on Natural language processing (NLP), organized by IIM Bangalore on 14th& 15th December, 2019. Venue: Christ University Bangalore.

Dr Ritanjali Majhi, attended two days workshops on Machine Learning using Python and Deep Learning scheduled on the 19 & 20 June, 2019 ,IIM Bangalore Sponsored by TEQIP , NITK.

Dr.Sreejith A, attended the Workshop on Reservation for SCs, STs, OBCs, EWS and PWDs in Services, 17th and 18th February, 2020, New Delhi.

Dr.Sreejith A, attended the Faculty Development Programme (FDP) on 'Machine Learning with Business Applications' of Indian Institute of Management Bangalore (IIB) during 4th to 9th November, 2019.

PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

DEPARTMENT OF CIVIL ENGINEERING

Narasimhan M.C appointed as a member of Academic Council, National Institute of Engineering, Mysore (An autonomous Institute under VTU, Belagavi) - University Nominee - Academic Years 2020-22.

Narasimhan M.C. appointed as University Nominee by VTU, Belagavi, for the Inspection Visit of UGC Team to Vidyavardhaka College of Engineering, Mysore, during Nov 2019, for considering Grant of Autonomy.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Dr. Ashvini Chaturvedi, Department of E&C Engg., attended BOG meeting of GEC, Jhalawar as invited member at Takniki Shiksha Bhavan, Jaipur on 18th December 2019.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Dr. Shashi Bhushan Arya, Best Paper:Technical Paper Microbial Induced CorrosionBehaviour of Multilayer Nanocomposite Coatings for the Marine Applications. (Preethi, Shashi Bhushan Arya, Vidya Shetty) CORCON 2019 during 23-26 September, 2019 at Mumbai.

SCHOOL OF MANAGEMENT

Dr. Ritanjali Majhi:

1. BOS ,Mememberr, MSc Analytics, MAHI, Manipal University for the year 2019-2020.
2. BOS, NIT Andhra Pradesh, Management Studies, for the year 2019-2020.
3. Dr. S. Pavan Kumar had bagged "Engineering Education Research Leader" award, an IUCEE showcase awards program, during Seventh International Conference on Transformations in Engineering Education (ICTIEE, 2020). Anurag Group of Institutions and IUCEE are the joint organizers during 5th – 8th January, 2020. Venue: Anurag Group of Institutions, Hyderabad.
4. Dr. Sreejith A, 2020 United Nations University (UNU) - eGOV Fellowship.

DEPARTMENT OF CHEMISTRY

Prof. S. T. Nandibewoor Award-2019 by Indian Council of Chemists held its 38th Annual Conference at Jaipur National University, Jaipur during 26-28th December 2019.

16 STUDENTS PLACEMENTS

Placement Details Highlights

Highlights

The year 2019-20 has been a very successful year for Career Development Centre. We had reasonably very high percentage of Placements and Training slots.

Main Objectives:- provide opportunities for,

1. Placement to all students of the final year B.Tech, M.Tech, MCA, MBA and M.Sc.
2. Training to all students to be covered during the 5th, 6th and 7th Semester vacations. The compulsory training for B.Tech. Mining Engg. Students during the 5th and 6th Semester vacations.
3. Provide Counseling and facilitate development of Soft Skills and Personal Effectiveness to help students build a successful career.

Performance Overview:

- A total of 267 Companies visited NITK Surathkal for Campus Recruitment/Internship.
- 65 Companies visited NITKfor Placement process for the first time.
- 930 students were placed – 599 B.Techs, 225 M.Techs, 73 MCAs, 17 MBAs, 8 MSc (Chemistry) and 8 MSc (Physics)

The recruitment process by few companies expected to happen in March / April 2020 has been carried forward on account of COVID-19 and is expected to complete by Mid of August 2020. The average salary for 2019-20 UG programs is 10.8 LPA.

PLACEMENT RECORD FOR 2019-20

Program	% placed
B.Tech	89.40
M.Tech	48.38
MCA	89.02
MBA	94.44
MSc(PHY+CHEM)	34.04

BRANCHWISE UG PLACEMENTS 2019-2020 (as on 31-07-2020)

Branch	Total Eligible Students	Placed
CIVIL	71	51
CHEMICAL	31	27
COMPUTER	97	96
E & C	97	91
E & E	95	85
IT	95	95
MECHANICAL	118	104
METALLURGY	36	31
MINING	30	19
Total	**670**	**599**

Training Slots for the Academic Year 2019-20

Sl. No.	Branch	No. of Slots
01	Chemical Engineering	27
02	Civil Engineering	35
03	Computer Engineering	91
04	Electronics & Communication Engineering	34
05	Electrical & Electronics Engineering	51
06	Information Technology	86
07	Mechanical Engineering	92
08	Metallurgical & Material Engineering	31
09	Mining Engineering	38
	Total Number of Students	**485**

Number of Companies : 142	**Number of Training Slots : 485**

17. SPECIAL INITIATIVES

17.1 Scholarships / Assistanceship

As per the guidelines of Govt. of India (MHRD) Merit and Merit cum Means Scholarship have been awarded to I B.Tech. students every year who have got 60% above marks in +2 exam and the same will be continued based on their performance in II, III & IV B.Tech. Examinations. In addition, based on performances at the semester Examinations scholarship have been awarded to the students of II, III and IV year B.Tech. Several other scholarship awarded by Central and State Govts., Endowments, Institution of Engineers etc., are enjoyed by the students. SC/ST students will be paid post-matric scholarship and facilities of Fee Concessions.

The Post Graduate students who have qualified with GATE are paid a sum of Rs.12,400/- as P.G. stipend per month. M.Tech. (Q.I.P.) Regular and (Q.I.P.) Poly are paid Rs.4,000/- per month.

Full-Time Ph.D. Research Scholars are paid institute scholarship @ Rs.25,000/-p.m for *I and II year and III, IV and V year Rs. 28,000/-* per month. Ph.D. QIP(R) students are paid Fellowship of Rs.9,000/- per month and a contingent grant of Rs.10,000/- per year.

17.2 Memorandum of Understanding

Date of Signing MOUs and Duration	Duration	Organization/ Institute	Domain
20th August, 2019, 5 years	5 Years	Hewlett Packed Enterprise Globalsoft Pvt. LTD, Bangalore	Initiating research collaboration activities with NITK Faculty on areas of Mutual Interest, Engaging NITK students in potential internship activities and in-semester projects, Conducting periodic workshop /seminars (with HPE experts and organised by NITK)on topics of mutual interest at NITK Surathkal .Faculty and students of NITK could be Participants, Organising webinars, conference , coding Competitions etc, Explore potential setup of lab facility at NITK, to explore research avenues in high performance computing and other research activities, Hewlett Packed Enterprise Globalsoft Pvt. LTD, Bangalore, 20th August ,2019, 5 Years
31st August, 2019 (Renewed MOU), 3 years	3 Years	Robert Bosch Engineering and Business Solutions Limited (RBEI), Bangalore	Mechanical /Electronics/Collaborative research and student Internship, Robert Bosch Engineering and Business Solutions Limited (RBEI), Bangalore, 31st August, 2019 (Renewed MOU), 3 Years
15th December , 2019, 5 years	5 years	Indian Institute of Technology Jammu	To Promote defence research, National and International academic cooperation in education, research and consultancy: ● Exchange of materials in education, research and consultancy, Publications, and academic information; ● exchange of faculty and research scholars; ● Exchange of students ; ●Joint research and meetings for education, research and consultancy ; ●Technical assistance, training for defence personnel, faculty students and the local community. ● Both the institute will share their resources for the benefit of students, faculty and research scholars of the institutes.

Date of Signing MOUs and Duration	***Duration***	***Organization/Institute***	***Domain***
03rd January, 2020, 10 years	10 Years	Indian Space Research Organisation (ISRO) Bengaluru	Research Activities
9th January,2020, 3 years	3 Years	L&T Technology Services Pvt. Ltd	Research Activities
10th January, 2020, 5 years	5 years	Tashkent Institute of Irrigation and Agricultural Mechanization Engineer	International Academic Cooperations
15th January, 2020, 3 years (Renewed	3 years	Kompetenzzentrum Holz GmbH	Faculty exchange/ Collaborative research
24th January, 2020, 1 year	1 year	Sanjay Gandhi Institute of Trauma and Orthopaedics,	To Foster cooperation in education and medical
10th Feb, 2020 (Renewed MOU), 5 years	5 Year	Michigan State University, U. S. A.	Faculty exchange /Student exchange Program
27th Feb,2020 (Renewed) 5 years MOU) 5 years	5 years	Faculty of Engineering and Graduate School of Science and Technology, Kumamoto University, Japan	Student exchange Program
27th April , 2020, 5 years	5 years	SreeChitra Tirunal Institute for Medical Sciences and Technology	Collaborate in Academic, Scientific and Technical research in specific areas of Common Interest in the broad area of Artificial Intelligence in medical image analysis , under a project Titled "Volumetric estimation of paraspinal muscle atrophy following minimally invasive tubular retractor assisted excision of extramedullary tumors of the Spinal Canal".
9th March, 2020, 5 years (Renewed MOU)	5 Years	Kagoshima University, Japan	Academic exchange program for students
27th March, 2020		Tecnimont Private Ltd, Mumbai	Implementing Bio waste Recycling Pilot Plant Project and providing two Maire

17.3 Innovations & Technology Transfer

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INNOVATIONS:-

FULL SYSTEM modeling of POWER9 processor in a standard architecture simulator, gem5. The models are in the queue to being up streamed in the core gem5 thread.

INDUSTRY INSTITUTE INTERACTION

Process is going on to setup MoU with ICMR- National Institute for Research in Tuberculosis.

DEPARTMENT OF MINING ENGINEERING

Industry Institute interaction:-

The Department of Mining Engineering has excellent interaction with industry. Every year students are being sent to various industries to take practical training at mine site and as well as short visits. The Department also giving technical services to not only for mining but also for civil engineering projects. This year our services are utilized by 8 Mining companies and two civil engineering excavation companies in the form of consultancy projects.

SCHOOL OF MANAGEMENT INNOVATIONS:-

Details of Innovation:- Implementing Lean Service in Indian Postal Service - NSH Mangalore, Karnataka, India
Names of the faculty/staff/students involved:-
Prof. Sequeira A. H. & Vadivel S. M

17.4 Concessions For SCs, STs, Handicapped Students

All SC/ST candidates are eligible for exemption of Tuition Fees as per the order of M.H.R.D., GOI, New Delhi.

1

17.5 SC/ST CELL

In order to ensure prompt disposal of the grievances of the SC/ST employees, scrutinize and consolidate the statistical data to conduct annual inspection of the rosters, SC-ST Cell was established in 2006.

The Cell also coordinates Scholarship Schemes for the benefit of the students belonging to SCs/STs category.

In 2018-2019 onwards Ministry of Social Justice and Empowerment under the Central Sector Top Class Education Scholarship (TCES) Scheme for B.Tech. SC students, Top 10 students from first year and second year were awarded TCES who's family income is below 6 lakhs. 23 students from third and final year were awarded TCES who's family income is below 4.5 Lakhs.

In 2018-19, Ministry of Tribal Affairs under Central Sector Top Class Education Scholarship (TCES) scheme for B.Tech/MTech ST students who have registered online in the National Scholarship Portal who's family income is below 6 lakhs. 76 ST students (Ministry of Tribal Affairs) from first, second, third and fourth year B.Tech/M. Tech are receiving TCES scholarship.

To cater the need of academic weaker students and support, Cell arranged the Special Coaching Classes for all theory subjects and Computer Programming Lab for first year B.Tech students belonging to SC/ST/OBCs, Minorities and PwDs.

To promote qualitative education in Engineering, following schemes drawn under financial assistance to the SC/ST students of the Institute to all academic programs whose family income from all sources doesn't exceed Rs.4.5 lakhs per annum.
Book allowance- Rs.6000/- (Rs.3000/- per semester).
Waiver of Hostel Fee (except caution deposit).
Latest computer with full accessories limited to Rs.45000/- per student as one time assistance.
Students Academic Performance Incentives (Rs.12,000-00 if CGPA is more than 6.5 and Rs.18,000-00 if CGPA is more than 8.0 in previous year).

SKILL DEVELOPMENT PROGRAMME

Skill Development Programme was conducted for final year B.Tech/M.Tech SC/ST students of NITK-Surathkal. This was conducted during 3rd to 28th July 2019 in evening hours from 5.30 to 8.30 PM. The trainers for this programme are from FACE (Focus Academy for Career Enhancement). In the programme 60 students actively participated. The programme was aimed to focuses on English communication skills, Self Enrichment & Employability enhancement, Teamwork, Leadership, Interpersonal skills, CV writing, Interviews, Group Discussions, Presentation skills, Career planning.

The modules of the proposed programme were: (1) Confidence building:to improve the confidence level of students with respect to public speaking, (2) Aptitude-consistent with the three-point tonic system in which importance is given to learning three major skills important for success in aptitude tests: (i) Question selection (ii) Shortcuts to questions (iii) Enhanced calculation speed, (3) Speed Maths-it helps to minimize their computation time drastically, enhances the computational efficiency, (4)Communique- to improving the s grammar knowledge, (5)Recruitment Essentials-to prepares the students for mock group discussion, personal Interview and successfully crack personal interviews.

NET Coaching Classes for 2nd year M.Sc. (Physics) Students

NET Coaching Classes was conducted for 2nd year M. Sc. (Physics) students of NITK-Surathkal. This was conducted during 15th September to 30th November 2019 in evening hours from 5.30 to 8.30 PM.

17.6 NSS (National Service Scheme)

The NSS unit of the NITK Surathkal (formerly KREC Surathkal) has been actively rendering its services to the backward areas and villagers of Dakashina Kannada district since its inception in this institute in 1964. The NSS unit organizes regular activities like, tree plantation, clean up of the hostels and NIT K Beach, organizes blood donation, medical, dental and eye camp for the villagers. It also involves in promoting literacy to villagers irrespective of their age, and enhances educational tools and, motivates primary school children of the schools located in various villages. The NSS unit of the institute was initially part of the Mysore University, Mangalore University and Vishvesvaraya Technological University. For the year 2010, the institute has already obtained permission from the Karnataka state NSS unit to have NSS unit which is independent to NIT K Surathkal.

17.7 RIGHT TO INFORMATION ACT (RTI 2005)

The Right to Information Act, 2005 empowers citizens to get information from any 'public authority'. The Central Public Information Officer (CPIO) of a public authority plays pivotal role in making

the right of a citizen to information a reality. The Act casts specific duties on him and makes him liable for penalty in case of default.

What is Information

Information is any material in any form. It includes records, documents, memos, e-mails, opinions, advices, press releases, circulars, orders, logbooks, contracts, reports, papers, samples, models, data material held in any electronic form. It also includes information relating to any private body which can be accessed by the public authority under any law for the time being in force.

Right to Information under the Act

A citizen has a right to seek such information from a public authority which is held by the public authority or which is held under its control. This right includes inspection of work, documents and records; taking notes, extracts or certified copies of documents or records; and taking certified samples of material held by the public authority or held under the control of the public authority.

The Act gives the citizens a right to information at par with the Members of Parliament and the Members of State Legislatures. According to the Act, the information which cannot be denied to the Parliament or a State Legislature shall not be denied to any person.

17.8 YOGA CENTRE HISTORY

Yoga club is a club which organizes all sorts of meditation methods like different yam or self discipline, niyam or discipline, Asanas or position, Bandha or Mudra, Pranayama or control of breath, pratyahar or determination, dharana or dedication, dhayan or meditation and Samadhi or deep meditation which help in concentration in study, helping in attaining happiness by removing all sorts of diseases, for the purity of external life and for internal purity by following regulation of purity of thoughts. It has been organizing yoga events from the last 15 years in NITK.

RECENT INITIATIVES

- We have planned to organize 6 batches in this year which is much more than last year in which only 3 batches were conducted in one year and previous years.
- We are also planning to conduct some special yoga practices for faculty members who are willing to join in large number. A large number of faculty members have enquired and wanted to join the yoga practices.
- We are planning to attract more number of B.TECH students by increasing the size of organizing members and also inducting 1st years into organizing committee.
- We are trying to make people aware of yoga programs more and more by notices as well through personal and group contacts.

MAJOR ACHIEVEMNTS

- 180 people have been enrolled in this semester in different batches which is very large as compared to previous year enrolments and about same number of students are likely to enroll in the next semester yoga practices.
- More than 60 girl students have enrolled for yoga practices this year and are actively participating in almost all batches.
- Postgraduate students and Ph.D scholars have shown much more interest in practicing and learning yoga asanas and pranayams than undergraduate people.

17.9 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

TEQIP-III project awarded to the institute has been successful in implementing diversified activities as laid under the three heads, namely, procurement, academic and operating cost. Until the last quarter (April-June 2020) funds utilised under various heads are Rs.156 lacs for procurement, Rs.227 lacs for academic activities, and 0.470 lacs for operating cost. The project has benefitted as many as 12 faculty in publication of their research articles in peer reviewed journals plus 35 faculty have attended workshop/conference, plus 12 faculty have organised FDPs/Workshops/STTPs/Conferences; 98 students inclusive of UG, PG and Ph.D. students have been supported to attend the conference and presented research papers in conferences; and 10 non-teaching staff have attended knowledge/skill development programmes. 84 UG students were provided financial support for their internship at industry and IITs/IISc/R and D organisations. Students appearing for GATE 2020 have been provided learning material and training. The project has also supported Seminars/Training/Skill development programmes for the UG and PG students in the direction to enhance their employability skills. Under the equity action plan (EAP), seminars, training programs and workshops were organised for the UG and PG students for improving employability skills, communication skills, and over all personality development. Major responsibility assigned to the TEQIP-III project institutes under 1.3 component is the Mentoring activity /Twinning system. NITK Surathkal has been mentoring Engineering College (EC), Jhalawar (Formerly Government Engineering College, Jhalawar), Rajasthan since the inception of the project in 2017. Accordingly, there has been a series of academic activities organised by faculty of NITK benefiting the faculty and UG students of the mentee institute. During the last three academic years nearly five visits have taken place between the faculty of EC Jhalawar to NITK and vice versa. From NITK Surathkal nearly, 15 to 20 faculty from NITK visit EC Jhalawar for about a week. Faculty from IT, CSE, EEE, ECE, ME, CV, Physics, and Chemistry have been the major contributors. During this academic year the faculty of NITK interacted with the students and faculty of EC Jhalawar. Faculty of NITK have engaged classes to UG students of EC Jhalawar based on Rajasthan Technical University (RTU) Kota curriculum, engaged in practical classes as well. Few focused and theme based training programmes, motivational talks, seminars have also been organised with the objective that their technical, soft skills, cognitive and non-cognitive skills be enhanced. EC Jhalawar faculty were assisted by NITK Faculty to successfully apply for NBA accreditation, accordingly NITK faculty of various departments have helped EC Jhalawar to prepare their e-SAR. Workshops on Pedagogy, OBE, Effective Governance practices, and theme based workshops/seminars were organised for the benefit of the faculty of EC Jhalawar. NITK Surathkal has provided UG students of EC Jhalawar with the opportunity of undergoing internship at NITK for about 30 to 45 days. During the academic year 2017-18 and 2018-2019 nearly 154 and 89 students have visited NITK for their internship with a focus to help improve knowledge in the courses relevant to RTU Kota curriculum. Faculty of NITK Surathkal were in the forefront to help EC Jhalawar to take up joint research activity which has resulted in two joint research projects being sanctioned for EC Jahalwar under the TEQIP Collaboration Research Scheme.

18. INDUSTRY INSTITUTE INTERACTION

18.1 INDUSTRY INSTITUTE PARTNERSHIP CELL (I.I.P.CELL)

The IIP Cell at NITK, Surathkal is engaged in building Institute Industry Collaboration for mutual benefit. The Cell is headed by a faculty member of Associate Professor or above grade supported by a Clerical Assistant. The Faculty in-charge reports to Dean (R&C), Dean (P&D) and Director.IIP Cell is mainly involved in handling of Testing and Consultancy works of all the departments and arranging endowment lectures.

The Institute Revenue generation through Testing and Consultancy has been improving substantially. The total revenue generated through Testing and Consultancy works for the year 2019-20 is Rs.1.77 (one Crores seventy-seven lakhs).

Enclosed here with the list of NITK Clients for T&C activities for the year 2019-2020.

Details of Patent application filed by NITK in Indian Patent office for the year 2019-2020

Inventors	Title of Patent application	Application No	Date of Filig
Dr.K.V Gangadharan,Kiran Katari	Variable stiffness Magnetorheological Isolator	201941018353	08-05-2019
Roopa Vishwadev, Venkata Ramana vanjari, Arjun Mudlapur, Dr, Venkateshperumal B, Pavankumar Pothapragada, (Joint application: NITK & Simlife Electric Private Limited)	Transformer-less Solar Photovoltaic Gird Connected Inverter	201841038650	11-10-2018
Dr.Bhawana Rudra	Method, System and Apparatus for Accurate Run-out Decision	201941032006	07-08-2019
Dr.Subray R.Hegde, Preetish Crimson D'Silva	Method and System for producing elongated grains in wrought metals with superior creep resistance.	201941033324	19-08-2019
Dr.Subray R.Hegde, J.K Rakshan Kumar, Sudhir Hegde, Sudarshan B, Jayaram Bhat M, Ganesh Bhat, Allen Johan, Praveen R.	Industrial thermocouples with superior creep resistance	201941033961	22-08-2019
Santhosh K.G, Manikonda, Dr.Dattatraya N Gaonkar	A method for islanding detection based on image classification with ensemble convolution neural networks.	201941036379	10-09-2019
Dr.P.Shanthi Thilagam, Amith Praseed	Method and system for detecting asymmetric application layer DDOS attacks based on user access patterns	201941040132	03-10-2019
Aranganathan Vishwanathan, Dr Adka Nithyananda Shetty	Method and system for Synthesis of elctrode and electrolyte Materials for High Energy storage devices.	201941044515	03-11-2019
Jagananthan T.K, Kishore Kumar M.J	Method and composition for fabricating a high-k-dielectric materials	201941047909	23-11-2019
Suresha S.N, Nigappa A	Direct compaction Mould for preparation of Bitumen Bounded Fine Aggregate matrix Specimen	202041006193	13-02-2020
Saikat Dutta, Sib Sankar Mal, Sharath B Onkarappa, Navya Subray Bhat	Efficient production of furanics and levulinic acid from carbohydrates using quaternary ammonium salts as an additive	TEMP/E-1/7790/2020-CHE(202041007329)	20-02-2020

S.No	Clients Name
1	Mangalore International Airport, Mangalore
2	Premier Builders, Udupi
3	Wadia Techno Engineers Services Ltd, Bangalore
4	Mangalore Chemicals and Fertilizers Limited, Bangalore
5	Westtek Enterprises Pvt Ltd, Manipal
6	Wonderla Holidays Limited, Hyderabad
7	The Executive Engineer, Bangalore Central Division, Bangalore
8	The Secretary, Agriculture Produce Market committee, Belthangady D.k
9	RKEC Projects Limited, Uttara kannada
10	The Singareni Colliries Co Ltd, Telangana
11	Rajeev Kumar Gupta, Mangalore International Airport authority,
12	The Senior General Manager, Mangalore SEZ Ltd
13	KIOCL Limited, Panambur, Mangalore
14	High Grip Granites, Kerala
15	Kudroli Construction, Kasaragod
16	Hi-Tech Civil Engineers Pvt Ltd, Lakshadeep
17	Assistant Engineer, City Corporation, Mangalore
18	Konkan Railway Company
19	IIT, jammu, Jagti, PO Nagrota, NH-44, Jammu
20	IREL India, Ltd,Tamilnadu
21	Mangalore Refinery and Petrochemical Ltd,Surathkal
22	Mangalore Chemical and Fertiluizer Limited, Mangalore
23	Sr.Geologist, Mines and geology Dept, Rajathadri, Manipal, Udupi
24	Pixellogic Solutions Pvt Ltd, Vidyanarayanapura, Bangalore
25	The Singareni Co Ltd, Telangana
26	TJN Construction Pvt Ltd, Bangalore
27	Sri.Palimaru Matha, Udupi
28	M.Manohar Rao, Mangalore
29	Green Enviro Tech Services, Bangalore
30	Sai Radha Developers, udupi
31	THR. Infrastracture, Moodabedri
32	Mineral Enterprises Ltd, West Wine , Mangalore
33	Sukhdevraj Sharma Engineers, NITK, Mangalore
34	REX Polyextraction Pvt Ltd, Opp KWC College, Sangli
35	Shri.Durgaparameshwari Temple, Kateel
36	Kamath Granite Crushers , Puttur
37	New Mangalore Port Trust, Panambur, Mangalore

38	Geo Marine Solutions Private Limited, Bejai, Mangalore
39	Central Research Laborartory(CRL), Bangalore
40	Indian Institute of Science, Kundapura, Challakere T.q
41	Kilinakod Rock Products Private Limited, Kerala
42	L&T Limited Constructions, Chennai

18.2 INDUSTRY INSTITUTE COLLABORATION

DEPARTMENT OF COMPUTER ENGINEERING

IBM and NITK-IBM Computer Systems Research Group, NITK are working to build POWER Processor models into the gem5, full system simulator.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Name of the industry:-

Texas Instruments India Ltd.,
DRDO
LRDE
ISRO
ANRC, Boeing
Intel
Dell, EMC
Maxlinear
MediaTek
NXP India Pvt. Ltd.
Samsung RD
Analog Devices
National Instruments

Nature of Collaboration (academic, research, training etc):- Academic and Research.

Period/Duration:- April 2019 to March 2020

SCHOOL OF MANAGEMT

Period/Duration:- Ongoing **Dr. Suprabha K.R.:**
Name of the industry:- Wadhwani Foundation
Nature of Collaboration: Academic and Training.
Period/Duration:- 2018-2021
Dr. Bijuna C. Mohan:
Name of the industry:- New Mangalore Port Trust (NMPT)
Nature of Collaboration (academic, research training etc):- Research/consultancy.
Looking for collaboration with Data Analytics and Computational laboratory (DACL), a center of excellence of Indian Institute of Management Bangalore (IIMB) for conducting joint academic activities.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. M/s Infineon Technologies India Pvt. Limited, Bangalore has sponsored the visit of Mr. Swaminathan Balasubramaniasarma, a Senior Staff Engineer, who participated as an Industry expert in Pre NBA UG workshop held on 11th March, 2020.
2. Dr G S Punekar has been requested to do the consultancy work to MESCOM for 11 kV/33 kV GIS-substation earth mat design. Field visit done on 14th December 2019.
3. In association with the Dean (R&C) Efforts are being to done to prepare a DPR with regard to setting up of a Center of Excellence (COE) supported by Siemens in the institute.
4. UG/PG students have done their Major project/internships in industry such as Infineon Technologies, Bangalore, ABB, Mercedes-Benz Research and Development India, KPIT Technologies, Pune, Raptor Design Technologies Pvt. Ltd. Bangalore, National Brain Research Centre, Haryana, TIFR Mumbai, IITBombay, Central Water & Power Research Station, Pune, National Institute of Oceanography, Goa, etc.

DEPARTMENT OF INFORMATION TECHNOLOGY

Dr. SOWMYA KAMATH S
Name of Industry: Hewlett Packard Enterprise (HPE)
Nature of Collaboration: MoU signed for Research and academic collaboration, Student internships, joint projects. Expert lectures

Period/Duration: Aug 2019 - Aug 2024

Outcome: HPE donated six high-end servers and other equipment for setting up a High Performance Computing Lab at Department of Information Technology. The donated equipment are valued at Rs. 77 lakhs (as per prevailing market prices) and the Lab was inagurated by Mr. Naresh Shah (President India-R&D, HPE) on August 17th, 2019.

DEPARTMENT OF MECHANICAL ENGINEERING

- IFB Goa , Industry sponsored research, Dr. Hemanth Kumar, Dr. Jeyaraj P, Dr. Sharanappa, Dr. K V Gangadharan
- NMPT, Industrial Consutancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- MRPL, Industrial Consutancy, Dr. K V Gangadharan, Dr. Pruthviraj (app Mech)
- NMPT, Industrial Consutancy, Dr. Pruthviraj (AppMech) , Dr. Sheena(SOM) , Dr. K V Gangadharan
- Wonderla Kochin, Industrial Consutancy, Dr. K V Gangadharan
- Wonderla Bangalore, Industrial Consutancy, Dr. K V Gangadharan
- Wonderla Hydrabad, Industrial Consutancy, Dr. K V Gangadharan
- MRPL, Management Training Program, Dr. Sheena (SOM) Dr. K V Gangadharan
- OMPL, Industrial Consutancy, Dr. Ranjith and Dr. K V Gangadharan
- Clasic Fussion, Industrial Consutancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- Hi Tech Batteries, Industrial Consutancy, Dr. Bijuna (SOM), Dr. K V Gangadharan,
- IKP knowledge park, BRIC Hackathon, Dr, Sowmya Kamath (CS) and Dr. Suprabha (SOM) , Dr. K V Gangadharan
- MRPL, INVENCIO - Design Contest, Dr. Pruthviraj (AppMech) , Dr. K V Gangadharan
- Rambal India Ltd. Chennai, Industry sponsered research, Dr. Hemantha Kumar, Prof. K.V.Gangadharan, Dr. Sharnappa J, Dr. Mohd.Rizwan Rahman (Material and Metallurgy Engg),
- Ashok Leyland Ltd. Chennai, Industry sponsered research, Dr. Hemantha Kumar, Prof. K.V.Gangadharan, Dr. Sharnappa J, Dr. Mohd.Rizwan Rahman (Material and Metallurgy Engg),
- Arya Technokrats Belgaum, Collaboration for Fabrication, Dr. Hemantha Kumar
- AUM Techno Spray, Research, Dr. Ramesh M R and Dr Sharnappa J

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Name of Industry: Foundry & Forging Division, Hindustan Aeronautics Limited Bangalore)
Nature of Collaboration: Internship
Period/Duration: May to June 2019

Name of Industry: Carborundum Universal Limited
Nature of Collaboration: Internship
Period/Duration: May to June 2019

Name of Industry: NCL INDUSTRIES LTD
Nature of Collaboration: Internship
Period/Duration: May to June 2019

Name of Industry: PEEKAY STEELS CASTING LTD
Nature of Collaboration: Internship
Period/Duration: May to June 2019

Name of Industry: JSW Steel Limited, Ballari
Nature of Collaboration: Internship
Period/Duration: May to June 2019

Name of Industry: Vichar Technology
Nature of Collaboration: Internship
Period/Duration: May to June 2019

19. SIGNIFICANT ACHIEVEMENTS

DEPARTMENT OF APPLIED MECHANICS & HYDRAULICS

Organized events

1. Seminar on Innovative concept in Ocean Engineering, 26.04.2019, NITK, Co-ordinator : Dr. Manu
2. Summer School on on Geospatial Technologies, 11-31 July 2019, NITK, Co-ordinator : Dr. H. Ramesh
3. Seminar on Coastal Reservoirs as a sustainable strategy for water security, 22nd – 24th July, 2019, NITK, Co-ordinator : Dr. H. Ramesh
4. CEP Course for PWD Engineers, 'Drone survey on 3D mapping', 26th -30th , August 2019, co-ordinator : Dr. Pruthviraj U.
5. Training programme on Hydrology and Hydrologic modelling using MIKE (DHI) Software , 16.09.2019, AMD, NITK, Co-ordinator : Dr. K. Subrahmanya
6. Training programme on ARCGIS software, 18th to 20th Sept. 2019, AMD, NITK, Co-ordinator : Dr. Amba Shetty
7. GIAN programme on Design and analysis of offshore floating and turbine, 3rd to 7th Sept. 2019, MHRD, Co-ordinator : Dr. D. Karmakar
8. Workshop on Prakruti Infocus, 28.09.2019, NITK, Co-ordinator : Dr. Pruthviraj U.
9. Training programme on Pix4D Map Software, 23.09.2019, AMD, NITK, Co-ordinator : Dr. Pruthviraj U.
10. Training progamme on Physical & Numerical Modelling in Coastal and Ocean Engineering' 4th to 10th Nov. 2019, NITK, Co-ordinators : Dr. Pruthviraj U. & Dr. Kiran G. Shirlal
11. Symposium on 'Open source hydrodynamics program on numerical modelling' 13th Nov. 2019.
12. GIAN program on "Environmental loads and Design Approach for Fixed and Floating Offshore Structures" 24th -27th December 2019, Co-ordinators: Dr.T.Nasar & Prof Subba Rao

Photographs attached

1. Invitation of Prakruti Infocus
2. Talk by Mr. Gururaj K.V. in Prakruti Infocus 28.09.2019
3. Prakuruti Infocus workshop on 28.09.2019
4. Inaugural function of Workshop on Innovative concept in Ocean Engineering, 26.04.2019.
5. Inaugural function of 3 days workshop on Coastal reservoirs as sustainable strategy for water security, 22-24, July 2019.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Dr. P Santhi Thilagam

- DISTINGUISHED ALUMNI Award, National Institute of Technology Karnataka, Surathkal Sept 2019
- Resource person of AICTE sponsored one-week STTP on "WSN & Ubiquitous Computing", during September 16-20, 2019, Jaipur, Rajasthan.
- Resource person of AICTE Sponsored two weeks FDP on Recent Trends in Machine Learning and Pattern Recognition-11-24 December 2019, MIT Manipal.

Dr. Annappa B

- Keynote address on Latest Trends in Research Methodologies and session chair for International conference on Technical Advancements in Computer Science & Engineering held on 6th December 2019.
- Volunteered as Proctor to guide and oversee competing teams for the IEEEXtreme 13.0 programming competition held on 19th October 2019.

Dr. Mohit P Tahiliani

- Added as a member of the Steering Committee by NS-3 Consortium.
- Served as an Organization Administrator for ns-3's Google Code-in (GCI) contest.
- Received a consultancy project from ABB Global Industries and Services Pvt. Ltd. in Bangalore.
- Speaker at FOSSCON 2019.
- New packet scheduler developed by team got merged into the mainline of the Linux kernel

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACHIEVEMENTS DURING 1ST APRIL 2019 TO 31ST MARCH 2020

Dr. C S Asha, PhD scholar, Department of Electronics and Communication Engineering (2014-2018) has been awarded Special Mention of the Jury Award in category of Electronics and communication by Board for IT Education Standards (BITES). The research work was carried out under the guidance of Dr. Narasimhadhan, Assistant Professor, Department of Electronics and Communication Engineering.

Dr. M. S. Bhat, IEEE Student Branch Counselor was awarded the Outstanding Large Students Branch Counselors Award 2019 by IEEE Bangalore Section.

IEEE Student Branch won 18th place in Global Ranking in IEEEXtreme 13.0 coding competition-2019.

IEEE Darrel Chong Student Activity Award 2019 - Bronze

IEEE R10 (Asia-Pacific) Exemplary Student Branch Award - 2019

Best paper award for the paper titled "Ultra low voltage, low power active-RC filter in 90 nm CMOS technology" by Y. P. Yeshwanth, T. P. Vara Prasad, Vivek Mudadla, Pavan and Rekha S. in the IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER 2019), 11-12 Aug. 2019.

Dr Anu Shaju Areeckal, PhD Scholar, Department of Electronics and Communication Engineering (2014-2018) has been awarded Gandhian Young Technological Innovation Awards 2019 for her research work, *Early diagnosis of Osteoporosis using metacarpal radiogrammetry and texture analysis*. The research work was done in collaboration with Kasturba Medical College, Mangalore & Center for Biomedical Imaging, Geneva under the guidance of Prof. Sumam David S and Prof. Michel Kocher, Institut d'Automatisation Industrielle, Haute Ecole d'Ingenierie et de Gestion du Canton de Vaud (HEIG-VD), Yverdon les-Bains, Switzerland.

- Proceedings of International Conference on Innovations in Power and Advanced Computing Technologies, IPACT-2017 held at VIT University, Vellore,, INDIA, April 21st and 22nd 2017. This paper has won the best paper award.

DEPARTMENT OF INFORMATION TECHNOLOGY

ACHIEVEMENTS DURING 1ST APRIL 2019 TO 31ST MARCH 2020

1. Prof. G. Ram Mohana Reddy, Department of IT awarded Best Research Paper Award at Springer 8th International Conference on FICTA 2020, National Institute of Technology Karnataka Surathkal, Mangalore, India, January 4-5, 2020
2. Dr. Sowmya Kamath S, Department of IT, Set up of Industry sponsored High Performance Computing Lab (in collaboration with HPE) on 17th August 2019.
3. Dr. Sowmya Kamath S, Department of IT, Signing of MoU with HPE for research and

academic collaborations on 17th August 2019.

4. Dr. Anand Kumar M,achieved the Second best team in "Arabic Deception Detection" and the Third best team in "Arabic Author Profiling" shared tasks of the Author Profiling and Deception Detection in Arabic (APDA) track co-located with the Forum for Information Retrieval Evaluation (FIRE'19), 12th - 15th December, at Indian Statistical Institute, Kolkata, India.
5. A research article written by Raghavendra K Marangappanavar and Kiran M entitled *Proof-of-Equality: Fairness Ensured Consensus Mechanism for Blockchain Technology*, has own best paper award in the international conference International Conference on Advances in Systems, Control and Computing (AISCC-2020), Springer, conducted during Feb. 2020 in MNIT Jaipur.

DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

Awards and Recognitions:-

Dr. Pushparaj Shetty D., Vice chair of the IEEE Mangalore subsection during the year 2019.

Dr. Pushparaj Shetty D., Chair elect of the IEEE Mangalore subsection during 2020.

Notable Achievements: Achievements during the year

Dr. Pushparaj Shetty D., Vice chair of the IEEE Mangalore subsection during the year 2019.

Dr. Pushparaj Shetty D., Chair elect of the IEEE Mangalore subsection during 2020.

DEPARTMENT OF MINING ENGINEERING

Significant Achievements -

Dr. B.M. Kunar and Dr. M.Aruna Received Core Research grant from SERB, DST Govt of India.

Awards and Recognitions –

1. Dr. B.M. Kunar received the Outstanding reviewer award from Journal of Safety Science (Elsevier Publisher).
2. Dr. B.M. Kunar received the Best reviewer award from Journal of safety science (Elsevier Publisher).
3. Dr. K. Ram Chandar revived Mining, Geological and Metallurgical Institute of India (MGMI)- Gold Medal for his outstanding contribution to Mining Engineering field.

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Students Achievements:

1. Rahul Chandrasekhar, Shamil K. M., Aju Ajmal and Sreejith, 2nd Year M.Tech. – Runners up in PG Football.
2. Vicky U. M., Ganesh Kumar B. and J. Rakshan Kumar, 2nd year M.Tech. – Finalists for Exceed 2020 Campus challenge conducted by WABTEC Corporation.
3. Bharadwaj, IV Sem. B.Tech. - NITTE JKSHIM Biz Quiz 1st Place.
4. Shubhang Bhandarkar, IV Sem. B.Tech. - NITTE JKSHIM Biz Quiz 1st Place, exQUIZite - St.Aloysious College 2nd Place, IEEE Sci Tech Quiz SJEC Chapter 2nd Place.
5. K Sujith Bhatt, IV Sem. B.Tech. - OPJEMS Scholar 2019.
6. Sowmya G. , IV Sem. B.Tech. - InterNit Lawn Tennis 2018 and 2019 Runners up(both the years).
7. Aakash Wilfred, IV Sem. B.Tech. - exQUIZite - St.Aloysious College 2nd Place.

8. Karthik Manjunath, IV Sem. B.Tech. - PATW qualified University level.
9. Shaurya Seth, B.Tech. 6th Sem. – Became a Technical Head and Sig Head for the technical club IE in April 2019.
10. Research Scholar of our dept. – Runners up in RPL 2020.

Special talk from Institute/Industries/R&D

1. Talk on "A review of Graphene Proximitized with Ferromagnets – Nanofabrication and Results" on 28th June 2019 by Dr. Dhavala Suri, Postdoctoral Associate, Francis Bitter Magnet Laboratory and Plasma Science and Fusion Center, Massachusetts Institute of Technology, Cambridge, USA.
2. Lecture on "Advancement of Physical Simulation Technology in Materials Research with Gleeble Thermo-Mechanical Simulator, on 30th July, 2019 by Dr. Wayne Chen, Director of Research and Managing Director, Asia – Pacific Operations Dynamic System Inc., USA.
3. Talk on "Metallurgical Engineering Role in Nation Building: An Indian Prospective" on 27th September, 2019 by Mr. Venkata Ramana, Head of Manufacturing, L&T Heavy Engineering, Surat.
4. Prof. T. R. Lecture Series on "High Energy Rare Earth Permanent Magnets: The Indian Landscape", on 29th October, 2019 by Prof. Amol A. Gokhale, Professor, Dept. of Mechanical Engineering, IIT Bombay.
5. Talk on "Micro X-Ray Scan for Different Capabilities" on 6th November 2019 by Mr. Samaresh Changdar, Senior Manager – Digital/CT India Baker Hughes – GE Company.
6. Talk on "Spark Plasma Sintering: A novel powder metallurgy processing tool for niche application" on 24th December, 2019 by Dr. Dibyendu Chakravarty, Scientist-E, Center for Nanomaterials, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Balapur P. O., Hyderabad.
7. Talk on "Materials for space program" on 17th February, 2020 by Mr. Gopinath Pai, Vikram Sarabhai Space Centre, Trivandrum.
8. Talk on "Proximity Effect in Hierachically Structured Superconductor/Ferromagnet Multi – Layers" on 19th February, 2020 by Dr. D. Paul Joseph, Asst. Professor, Dept. of Physics, NIT Warangal.

SCHOOL OF MANAGEMENT

International Summer University Program 2020

The Indian Leg of International Summer University Program 2020 was organized by the School of Management (SoM), National Institute of Technology Karnataka, Surathkal (NITK) in collaboration with University of Applied Sciences Western Switzerland, School of Business and Engineering Vaud (HEIG-VD), Switzerland. The program was held during 09th February to 19nd February 2020.

Dr. Dhishna Pannikot from SoM, NITK and Prof Eytan Zysman from HEIG-VD, Switzerland were the coordinatorsfor the event. Dr. S. Pavan Kumar, Head, SoM had supervised the event and Prof. Aloysius Henry Sequeira (Dean, Faculty Welfare), NITK presided over the function. 16 students from both the collaborating institutions participated in the programme.

DEPARTMENT OF PHYSICS

One Day Lecture Series, "Physics of Materials" at ST AGNES COLLEGE MANGALURU on 06-03-2020***Addition(s) to Building Infrastructure,*** Dr. Ajith K M

"Quantum Error Correction in a Loop Quantum Gravity Inspired Model of Elementary Particles" Loops' 19, Biennial international conference on Loop Quantum Gravity and allied approaches to Quantum Gravity, Pennsylvania State University, USA.

17-06-2019 to 21-06-2019, Dr. Deepak Vaid

International Conference on "Dynamics In Functional Materials" Transition Metal Quinonoids and Oxides for Spintronic Applications Kyriad Prestige Calangute, Umtavaddo, Calangute Bardez, Goa - 403516, India 12-02-2020 14-02-2020, Dr. Kartick Tarafder

Department of Physical Education & Sports

ACHIEVEMENTS:

1. Dasara Tournaments: Basketball
2. (Men) District level Runners, TT (Men) – Runners-Up.
3. BSA Kumar Inter collegiate Basketball tournament conducted by yenepoya University – Runner-Up.
4. All India Inter NIT Athletics, Weight Lifting, Power Lifting and Body building Championship Held at MNIT Jaipur: Won Team Championship In Body Building and Mr. Prathamesh of I MTech was declared as Mr.NIT for the year, 2015-16.
5. All India Inter NIT Sports held at SVNIT Surat, Badminton, (Men) Second Runner-Up, Tennis, Runner-Up.
6. All India Inter NIT Sporta held at NIT, Calicut, Basketball Men anf Women teams were Second Runner-Ups.
7. All India Inter NIT Sports held at NITK Surathkal during, 18th to 20th March, 2016 Institute Aquatics Men team won Team Championship, Aquatics Women team won team Championship and Hockey team won First place.
8. In "REVELS" All India Inter Engineering Collegiate Tournaments organized by MIT, Manipal: Volleyball Women teams were Runners-Up.
9. NITK Cup, 2015-16 Chess Tournament hels at NITK Surathkal: Institute Men & Women Team were `Winners.

Infrasturcture Development

Infrastructure Development
Setting up of new labs from Project fundingand IRG

- Offshore Renewable Energy and Simulation Laboratory (Development in progress under project fund)

HPC Server
Desktop Computers (3 Nos)
MATLAB
Acceleration Sensors
Pressure Sensors
Anchor Load Sensors
Tilting Sensors
Wave Sensors
Force Sensors

DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING

The building vacated by the Dept. of Computer Science and Engg. (while moving to a new building) has been alloted to the Dept. of E&C Engg.

During the year 2019-20, the following additions have been made building infrastructure:-

One type V Residential apartment of 5,245 sqm of built-up area with 24 dwelling unit.

One Type VI Residential apartment of 6840 sqm of built-up area with 24 dwelling unit

Distinguished Alumni Felicitation Programme Conferring of Distinguished Alumnus / Alumna Award (To Alumni of B.Tech. Batches 1965 to 1979) On 60th Foundation Day of NITK Surathkal August, 6th, 2019, 2pm to 6pm. Venue: SJA



Brief Report:

In commemoration of 60 years of fruitful existence, NITK is celebrating its Diamond Jubilee during the period August 2019 – August 2020. It was planned to start the Diamond Jubilee Celebrations on August 06, 2019 which coincides with the 60th Foundation Day of the Institute. This celebration of 60th year of glorious existence is mainly due to outstanding performance of our Alumni all over the globe and it was to rejoice this success through active participation of beloved Alumni through various events. Given the importance, we attach to the alumni, it was the collective desire of Team-NITK to invite distinguished alumni as an Institute Guest for the inaugural function of Diamond Jubilee Celebrations. The first Alumni meet was specially scheduled to felicitate "Distinguished Alumnus" graduated during 1965 to 1979 (decade and a half long). This Alumni meet had major objective of identifying the Alumni serving Industry / Research Organisations / Government Services across India and felicitate them conferring "Distinguished Alumnus / Alumna Award" on the eve of Diamond Jubilee Year. To ensure participation of Alumni from every department, respective departments were requested to nominate one distinguished alumnus/alumna serving Indian industry / organisations. To part benefit of their wisdom to faculty and students of NITK, invited alumni were requested to address gathering. The event started with welcome address by Prof. K. P. Vittal, Dean (AA & IR), then address by Prof. K. U. M. Rao, Director, NITK, and presidential address by Prof. K. Balaveera Reddy, Chairman, BOG.



Thirty One Alumni serving Industry / Research Organisations were invited and felicitated conferring "Distinguished Alumnus / Alumna Award":

Teachers' Day Celebrations

Brief Report:



All former faculty and staff felicitation program were organised on Teachers' Day to mark distinction among series of events slated during Diamond Jubilee Year of NITK Surathkal. This Teachers' Day had major objective of honouring all former faculty and staff who served NITK (KREC) since its inception. To ensure participation of former faculty and staff, their addresses were obtained from pension section and personal invitation were posted. Further, respective departments heads were requested to personally invite their faculty and staff. The event started with welcome address by Prof. Subhash Yaragal In-charge Dean (FW), followed with address by Prof. Ananthanaryana V. S., Deputy Director, NITK, and presidential address by Prof. K. Balaveera Reddy, Chairman, BOG.



1971 BTech Batch Reunion Organised at NITK Surathkal on 14th& 15th Dec 2019



The BTech 1971 Batch of NITK Surathkal orgainsed Golden Jubilee reunion at NITK campus on 14th Dec &15th Dec.2019. Prof. Panduranga Vittal K, Dean AA&IR NITK, Prof. U. Shripathi Acharya, Prof. M.S Bhat were invited during the occasion. To mark the occasion the reunion group offered their donation of Rs 1,35,000/- to NITK(KREC) Hr Primary school.

Academic Summit Sept 5 (Thu), 2019, Venue: SJA, At 10.00 hrs

Brief Report:-



An Academic Summit has been organised on Teachers' Day to mark distinction among series of events slated during Diamond Jubilee Year of NITK Surathkal. This Academic Summit had major objective of identifying the Alumni serving Academia across India and felicitate them conferring "Distinguished Alumnus / Alumna Award" on the eve of Diamond Jubilee Year. To ensure participation of Alumni from every department, respective departments were requested to nominate one distinguished alumnus / alumna serving Indian academia. To part benefit of their wisdom to faculty and students of NITK, seminar and panel discussion were organised. All invited alumni were requested to deliver a seminar on the topic: "Future Challenges in Engineering Education". This was followed by Panel Discussion on the topic: "Mission to realise Academic Excellence in NITK", which had participation of invited Alumni and moderated by Prof. M B Saidutta, Dean (Academic). The event started with welcome address by Prof. K. P. Vittal, Dean (AA & IR), followed with address by Prof. K. U. M. Rao, Director, NITK, and presidential address by Prof. K. Balaveera Reddy, Chairman, BOG.Ten Alumni serving Academia were invited and felicitated conferring "Distinguished Alumnus / Alumna Award":Panel discussion with Alumni moderated by Prof. M. B. Saidutta,Distinguished Alumni felicitated during Academic Summit



Engineers' Day & Technology Summit Sept 15 (Sun), 2019, Venue: SJA

Brief Report:



A Technology Summit has been organised on Engineers' Day to mark distinction among series of events slated during Diamond Jubilee Year of NITK Surathkal. This Technology Summit had a primary objective of identifying the Alumni serving Industry / Research Organisations / Government Services across India and felicitate them conferring "Distinguished Alumnus / Alumna Award" on the eve of Diamond Jubilee Year. To ensure participation of Alumni from every department, respective departments were requested to nominate one distinguished alumnus/alumna serving Indian industry/organisations. To part benefit of their wisdom to faculty and students of NITK, seminars were organised. All invited alumni were requested to deliver a seminar on the topic: "Future Challenges in Indian Engineering Industry / Organisation". The event started with welcome address by Prof. U. Shripathi Acharya, Dean (R & C), followed with briefing on Technology Summit by Prof. K. P. Vittal, Dean (AA & IR), then address by Prof. K. U. M. Rao, Director, NITK, and presidential address by Prof. K. Balaveera Reddy, Chairman, BOGFifteen Alumni serving Industry / Research Organisations were invited and felicitated conferring "Distinguished Alumnus / Alumna Award":



The 13th GLOBAL CONVENTION was held on 21st and 22nd December 2019 at Hyderabad, Telangana



The 13th Global convention was held in Telangana on 21st and 22nd December 2019. The convention was inaugurated by Prof. K Balaveera Reddy, Chiaperson NITK Surathkal. Dr.Adimulapu Suresh Education Minister (Government of Andhra Pradesh) was Chief Guest of Honour. Mr. B K Krishnamurthy, President NITK Alumni Association, Mr. M.Chitti Babu, Dr. Gopal Mugeraya, Director NIT Goa, Udaykumar Yaragatti, Director MNIT Jaipur, Dr. K Panduranga Vittal, Dean AA&IR NITK, Dr. V.R Sastry VC- DBATU, Past Global President Yajna Narayana,Past Global President Gopala Bhupala were also present

during the occasion. More than 500 Alumni and their family members from all over India and abroad attended the event and made GC13 a successful event.

1994 BTech Silver Jubilee Reunion has been organised at NITK Surathkal on 21st Dec 2019





1994 Silver Jubilee Reunion batch was celebrated at NITK campus on 21st Dec 2019. They felicitated Prof. Karnam Umamaheshwar Rao, Director NITK Surathkal , former Faculties and staff. Around 194 alumni with their families had attended the reunion. The reunion batch gave donation of around Rs.11 Lakhs to Trishul Jal Sanchayan initivative of Alma mater and offered donations of around 4 Lakhs to NITK(KREC) Hr Primary school.

1976 B.Tech. batch reunion was held at NITK Surathkal on 21st Dec 2019

The 1976 B.Tech. Batch of NITK Surathkal organised Reunion at NITK Campus on 21st December 2019. They had shared their facilities with 1994 Silver Jubilee Reunion batch and had a small scale assembly and with campus tour and had few entertainment programmes in Main seminar hall.

NITK Karavali Marathon 2020:



The NITK Karavali Marathon is an annual marathon organised by the NITK Alumni Association, backed by the Rotaract Club, Students' Council, TaskForce, NCC, NSS and CSD NITK Surathkal. The Marathon was started as the NITK Beach Run in its first edition to celebrate India's only privately-owned college beach, to promote a healthy lifestyle among the students and the staff of the college. This edition of the run, i.e. the 2020 edition, was the fifth edition of the Marathon held on January 12, 2020 and it is the biggest Marathon ever. In addition to promoting #Fit India Movement, the 2020 edition of the Karavali Marathon will drive awareness to "Combat Climate Change" and call to action in Karavali region. The NITK Karavali Marathon 2020 will be a special edition as part of NITK Diamond Jubilee year celebration with International Athlete, Arjun awardee Arjun Devaiah as the marathon ambassador. Another notable guest invited was Sandalwood, Kannada film actress Ms Krishnaa Bhat. More than 4000 runners have participated in this Karavali Marathon. The unique feature of the run is that the part of marathon trail is on the scenic NITK Surathkal beach, along with the beachside temple and lighthouse.Besides, the Marathon is aimed at creating awareness on combating climate change and starting action-based

activities in the coastal belt. There was total prize money of ₹ 3 lakh. In addition to that, they have given sports coupons worth ₹ 2 lakh.
The theme of NITK Karavali Marathon 2020 :NITK Karavali Marathon strives to improve year upon year, but have chosen to use the brand value to promote different causes in our society. Being one of India's only student-organised full marathons, the 2020 edition is themed with the vigour to raise awareness about one of the most significant issues endangering the future of the younger generations: Combat Climate Change. Join us in helping to promote the importance of living a fit and healthy lifestyle, and the importance of co-existing with our ecosystem and protect the younger generations as well as Mother Earth from devastating effects of climate change.

The Schedule of Karavali Marathon:
1. 42.2 Km Timed Run Flag Off - 5:00 am
2. 21.1 Km Timed Run Flag Off - 6:00 am
3. 10 Km Timed Run Flag Off - 6:30 am
4. 5 Km Timed Run Flag Off - 7:30 am

Perks for the timed race categories to the participants:
1. Timing certificate
2. Unique BIB number with RFID tag
3. Complimentary T-shirt
4. Finisher medal
5. Complimentary breakfast
6. Various refreshments and first aid support during and after the run
7. Physio team for warm up and post run recovery

Ring Presentation 2019

Ring Presentation was organized during 5th April 2019 in the Main Ground of the Institute, 1000 students were awarded with Silver Ring as a memory of NITK student.





Yoga Day Celebration 2019



Fifth International Day of Yoga was celebrated at National Institute of Technology Karnataka Surathkal on 21st June 2019 at New Sports Complex with full of enthusiasm and healthy spirit. The programme started at 9 a.m. with a massive crowd of around 300 students. NITK faculty and staffs and their family members also participated in the programme.

Orientation and Induction Programme:



The Orientation Programme for all the first year B.Tech. students was conducted on 24 July, 2019 at Silver Jubilee Auditorium (SJA) of the Institute. All the First year students along with their parents have attended the programme.

Induction Programme for the benefit of newly joined first year students was conducted from 25th to 6th August 2019.



First year students given training in various aspects of fitness, stress management. They also exposed to various art forms, music, etc..

Hudugata Hudukata (Treasure Hunt)



Kannada Vedike organized " Hudugata-Hudukata" (Treasure Hunt)for all the freshers of the academic year 2019-20 on 17th August, 2019. The main theme of the event is to make the freshers explore the vast campus and be familiar with all the main locations present in the campus. Around 400 people participated in the event and the event was a huge success.

Fit India Movement



The live telecast of the launching of the movement by our Honorable Prime Minister Narendra Modi was arranged in our Institute Main Seminar Hall and was witnessed by the Director, Deans, Registrar, Faculty, Staff and Students. It was resolved to include fitness activities and sports in their daily lives to pave way for a healthy and fit lifestyle. After the Launch, all the participants took walk through the entire campus covering a reasonably good number of footsteps. In connection with Fit India Movement Plog Run Event was conducted.

International Coastal Cleanup Day 2019



As a part of ***Swacchhataa Hi Seva*** movement, The NITK students along with the Director, Dean (SW) and SAS officers joined the Coastal Guard team in the Coastal Cleanup drive on 21st September 2019**.** The Director inaugurated the programme emphasized the importance of such activities.

Self Defense Training Programme

As per MHRD guidelines to provide better and safe environment to women and child development, Self Defense Training Programme was inaugurated on 24th September 2019 in ISTE seminar hall of our Institute. The training programme is being conducted from 25th September to 16th October 2019. Many women and girl students are taking part in the training programme.

Fresher's Cup

Phoenix Committee NITK organized Fresher's Cup from 12th-14th October 2019. This is the first sporting event of the academic year and it was exclusively for all the fresher's of the academic year. The event had inter Section indoor and outdoor games such as Cricket, football, Kabaddi, Basketball, Throw ball, Badminton, Table tennis, Volleyball, Chess, Carom. This event attracted around 700 participants who took part in different sports for the quest of glory.

Rashtriya Ekta Diwas Celebrations 2019 and "Unity Run"

On the occasion of 144th birthday of Sardar Vallabhbhai Patel, NITK Surathkal organized Rashtriya Ekta Diwas celebration followed by Unity Run on 31st October 2019. Director, Dy. Director, Deans, Registrar, Faculty, Staff and Students assembled at the Institute Main Building at 6.45AM.

The Unity Run from NITK to Surathkal Junction (which is the nearby town) and back to NITK covering a distance of about 5 kms was kick started by waving the Flag by the Chairperson, Prof. K B V Reddy. More than 800 students including 200 girls along with faculty and staff participated and successfully completed the run.

Visit to Special School

Members of Kannada Vedike visited Lion's Club school for mentally disabled Children in Surathkal on 4th November 2019 as a part of our annual Social Responsibility. We organized a few fun events for the children and also provided the school with books and sports equipment

Engineer 2019:-

The annual technical symposium of National Institute of Technology Karnataka (NITK) Surathkal, Engineer 2019 was celebrated from 18th to 20th October 2019. The 3 day long event commenced in the presence of Mitra-humanoid robot. Alok Ohrie, Chairman of Dell India was the chief guest for the inauguration ceremony.The first day was filled with eye-catching events like Bot Hockey(hockey played by bots built by students),wright flight(flying models built by students),NITK MUN,and Mock press.For gaming enthusiasts there were several gaming competitions like CS GO,DOTA,FIFA,etc. In addition to this,there were workshops such as IOT with google assistant,drone workshop,Autonomous driverless car design workshop .The day was concluded with Engi-talks by Sharad Sagar,CEO of Dexterity Global and Technites,an exhibition of the technical projects done by NITK students.

The second day had exciting events in the pocket.The day started with Tech-mela where students witnessed various scientific inventions such as hand gesture controlled drone ,dancing robots,and formula one car simulation game. Techmela was followed by Engi talk in which the crowd by inspired by the words of Major Deepak Rao. The talk was attended by every NITK NCC cadets. Major Rao was presented a memento by Ram Prasad BS Bhat NITK Security Officer.In the evening,the crowd burst out laughing witnessing the performances by

TVFstarsShivankitSinghandBadriChavan.Toconclude,bothwerepresentedbyamemento by Mr. Shubham Bharadwaj,Engineer Convener and Mr. Sujeet Kumar,Chief Coordinator of Engineer-19 .Following the hilarious event the audience was mesmerized by lasershow.The starting of third day was marked by Robo wars. In the afternoon,a rally was organized to support Cauvery Calling,an initiative to revive Cauvery by planting trees on its basin.Students were encouraged to donate for this noble cause.This was followed stunning bike stunts of RDX,a renowned bike stunt group. At the night, the atmosphere was filled with echoes of the musical tune performed by the Zephyrtone. Following this the college aura was heated up as the students danced in the beats of DJ Shireen.

Film Festival:

NITK's 5th annual film fest began with great audacity from 25th October to 27th October 2019, being the diamond jubilee year of the college the inauguration was graced by the national award-winning film critic MK Raghavendra who spoke about the necessity of watching the right kind of films for our personal development, this was followed by eventful-interaction with the cast of 'Mundina Nildana'.The festival also included interactions with the director of Shuddhi and cast of kavaludaari. The movies screened were peculiar and aimed at creating awareness about societal issues. The film fest comprised multi-lingual movies such as Capernaum(Arabic), Shuddhi(Kannada), Mahanati(Telugu), etc. which reach a wide variety of audiences. The former editions of the festival have seen the likes of artists such as D Satyaprakash, Vivek Agnihotri, P Seshadri, Hemanth Rao, and many others.
As a pre-fest competition, the NITK Films' club had a national short film contest to encourage the skill of film-making by screening the winner's film. It also had a film's quiz for movie enthusiasts with questions about all genres of movies.

Parva 2019

The major event of the club, the celebration of Karnataka's Culture and Heritage, Parva 2019 was celebrated on 10th November 2019. Shri. Santhosh Hegde, former judge of Supreme Court of India was the chief guest for the event. The event started with the Procession of Bhuvaneshwari Devi from Reddy Gate to SJA followed by address by the guest and cultural program. Along with state's culture, Karnataka's cuisine was also celebrated.
Director Prof. K Uma Maheshwar Rao Presided the ceremony. Dean student welfare Prof. Jagannatha Nayak along with the club's faculty advisor Dr. Nagamma Patil were also present.

Floodlit Tournament

Phoenix Committee Organized Floodlit tournament from 3rd -5th January 2020. This tournament was open for all the year students (both UG and PG). It was a battel under the lights as all the sports were conducted under floodlit. More than 500 students actively participated in this event and this event was a huge success.

Phoenix Committee Organized Floodlight tournament from 3rd -5th January 2020. This tournament was open for all the year students (both UG and PG). It was a battel under the lights as all the sports were conducted under floodlights. More than 500 students actively participated in this event and this event was a huge success.

NITK Karavali Marathon 2019

The 5th edition of the NITK –Karavali Marathon took place on January 12th, 2020, and in addition to promoting the Fit India Movement, the 2020 edition will drive awareness to

Combat Climate Change and call to action in the Karavali region. The NITK Karavali Marathon 2020 will be a special edition as part of NITK Diamond Jubilee year celebration with International Athlete, Arjun awardee Arjun Devaiah as the marathon ambassador. The event saw a participation of over 2500 participants in four different run categories- namely 5 km, 10 km, 21.1 km (half marathon) and 42.2 km (full marathon) and contributing to the cause of the Karavali Region with cash prizes worth Rs.3 lakhs.

TEDxNITKSurathkal hosted it's sixth edition on 17th January 2020 at the Silver Jubilee Auditorium. The talks began at 3PM and went on till 8PM at night. The theme of the event was '**Mirrors and Windows**'. Mirrors serve as a symbolic representation of self-introspection while windows represent portals meant to connect the audience and give them a sneak peek of the speakers' lives and experiences. The Diamond Jubilee edition of TEDxNITKSurathkal saw several new initiatives such as "Find your X", which was an Augmented reality treasure hunt in which students of NITK actively participated and won prizes by hunting and collecting virtual Xs around campus using their phones. For the first time, TEDxNITKSurathkal hosted a community speaker - Gaurav Hore, 2nd year BTech student of NITK, who was selected after auditioning a pool of applicants from NITK.

All India Inter NIT Sports meet 2019

NITK Surathkal organized, All India Inter NIT Sports in Kabaddi (men & women), Swimming (men & women) and basketball (men & women) during 17th to 19th January 2020. Around 900 students from other NITs participated in All India Inter NIT Sports. Participants were being provided with free Boarding and Lodging facilities.

Results of All India Inter NIT Sports meet 2019-2020

Date : 17th to 19th January 2020

Game	**Team Name**
SWIMMING (Men) Team Championship	
Winners	NITK Surathkal
Runners	NIT Trichy
III Place	VNIT Nagpur
Champion of the Tournament	**Adhitya S, NITK Surathkal**
SWIMMING (Women) Team Championship	
Winners	NIT Trichy
Runners	NITK Surathkal
III Place	NIT Nagpur
Champion of the Tournament	C H Esha, NIT Trichy
KABADDI (Men)	
Winners	NIT Kurukshetra
Runners	MANIT Bhopal
III Place	NIT Warangal
IV Place	NIT Silchar
KABADDI (Women)	
Winners	MNIT Jaipur
Runners	NIT Delhi
III Place	NITK Surathkal
IV Place	NIT Warangal
BASKETBALL (Men)	
Winners	NIT Kurukshetra
Runners	NIT Trichy
III Place	MNIT Jaipur
IV Place	MANIT Bhopal
BASKETBALL (Women)	
Winners	NITK Surathkal
Runners	NIT Calicut
III Place	NIT Kurukshetra
IV Place	MNIT Jaipur

Bharat Darshan

On 26th January, 2020 , this Republic Day, Dance, Drama and Fashion Club successfully conducted its biggest cultural event of NITK, **Bharat Darshan**. The event was a huge success.Bharat Darshan is a celebration of the diversity of India, with each state putting up a display of about 15-20 mins. The aim is to represent the traditions and cultures

of different states through a variety of traditional dance forms. This year we saw maximum participation from students from every year. All the fuss around this event is because of the prestige attached with our own state and the desire to be the best amongst everyone out there.

MatribhashaDiwas (Mother Tongue day)

On the auspicious occasion of International Mother Language Day, on 21/02/20, the following programs were organized by Hindi Evam Sanskrit Club:

1. Article Writing Competition

In the Article writing competition, around 180 NITK students participated from different stream like B.Tech, M.tech and MCA and some students from MSC (physics and chemistry department). In this, competition students were asked to write article on a given topic in their own- mother language. Overwhelming response were received where students tried to write article in different Indian languages like Hindi, English, Kannada, Telugu etc. (as per their choice). The top 10 students received a special award and next 10 students were given consolation prize.

2. Quiz competition

About 300 students participated in the quiz competition where questions were asked from the current affairs, general knowledge and importance and literature of various Indian languages The top 05 performers were awarded with special prize and next 10 students were given consolation prize.

3. Presentation of different languages and prize distribution

The program was started in the presence of Dr. Darshak Trivedi, the advisor of Hindi and Sanskrit Club. After this, Hindi and Sanskrit Club member Nitish Kumar highlighted the importance of mother tongue which was followed by various cultural programs in different Indian languages e.g. Hindi, Sanskrit, Kannada, Malayalam and other regional languages.

At the end of the program, the main guests explained the importance of the mother tongue followed by prize distribution ceremony.

Incident

The annual cultural festival of National Institute of Technology Karnataka (NITK) Surathkal, Incident 2020 was celebrated from 27th Feb to 1st March 2020 . Incident 2020 was inaugurated on 27th February evening by Prof. K Balaveera Reddy with Diganth Manchale as Chief Guest and Smt. Vidhathri U and Shri. Anantha Padmanabha K as guests of honour. Prof. K. Umamaheshwar Rao presided over the function.
This was followed by a performance by Ranaditya Sengupta, a mentalist. Talented kids of Incident's I-care beach schooling initiative performed a dance/skit on the conservation of tigers. NITK Dance Crew and Akal Bhangra entertained the crowd with their amazing dance performances.

Day 1 consisted of classical forms called Nritya(Solo) and Tandav(group). Day 3 consisted of Hip Hop forms called Step up solo, Step up duet and Promenade(group) which was a prelims to the National level Hip Hop International competition. Total number of participants-287 .NITK student won first place in Nritya.

Day 1 consisted of Raaga Rhapsody(Solo) and Unplugged(Acoustic band). Day 2 consisted of Pulse(Western Rock Band) which was a prelims to the Bangalore Open Air competition. Day 3 consisted of Bandish(Eastern Rock Band).

Day 1- Day 3 consisted of Slam Dunk(Basket Ball) and Spike

It(Volleyball).Day 2 consisted of Spinshock(Throwball).

Day 1- Day 2 consisted of B-Plan, Best Management Team and Crisis Management competition. NITK students bagged both the places in Best Management team and Crisis Management and also runners up in B-Plan competition

Day 1 to Day 3 we had Kalakriti(Arts exhibition) and Expose(Photography exhibition) which were set up in Old Sports Complex. Fine Arts included T-shirt painting(day 1), Newspaper costume(day 2) and Face painting(day 3).

Day 1 to Day 3 we had Gaming events including CS-GO, PUBG, COD and FIFA, Escape Room and Sony Playstation Zone which were set up in New Chemical Department. Day 1- we also had Hogathon. NITK students bagged 3rd in CS-GO,1st in COD and 1st in FIFA.

Inci Talks was held on Day 2 with the theme of 'Sheroes of India'. The speakers line up consisted of 4 women speakers. Nikitha Sharma- Young Woman Achievers Awardee,Henna Jayanth- India's first woman F4 Racer, Prajakta Koli-India's most celebrated Youtuber, Aranya Johar-Stand up poet/Feminist.

World fest is the flagship Inci Specials event of Incident which host street artists performing special stunts, Juggling and visual effects . This year we had Sylvain Pomme from France and The Twins' Trip from Argentina.

Pronites was fusion night which saw 2 major South Indian bands performing in Main Ground. Opening Act-Thaikuddam Bridge-Kerala based band with elements of classical, folk and rock music. Headlining Act –The Raghu Dixit Project-Contemporary Indian folk band.Opening Act-DJ SE3K-Sunburn artist known for famous pop song remixes. Headlining Act –DJ Seezi- one of India's youngest and talented DJs specializes in Future Bass and Trap music.Avg Footfall each day around 3500.

The fest concluded successfully on the night of 1st March 2020.

20. ASSOCIATED CENTRES

20.1. National Institute Of Technology Karnataka (STEP)

Entrepreneurship Development Center -NITK STEP Journey

NITK is equipped with a Science & Technology Entrepreneurs' Park (STEP) in a separate earmarked zone [20 acres land] of the vast complex of NITK. The major goals of the NITK-STEP is to create a healthy start up technology ventures through Business Incubation, capitalize on the intellectual base at the academia to develop competitive business units, to nurture and grow the spirit of Techno-Entrepreneurship and Entrepreneurial Thinking through promotion of appropriate training programs and capacity building, to reach out to the young, unemployed youth in the region and improve their employability by imparting Technology based skill development programs etc. STEP was formed as an independent registered society in the year 1994 by KREC. It became functional in 1998 by setting up its administrative and entrepreneurs' block along with other required infrastructure.

NITK- STEP has incubated so far about 73 incubatees of which a few have established multi crores sales turnover companies employing hundreds of knowledge workers. A few of the innovators promoted have turned out to be outstanding ones bagging reputed, national and international level awards.

NITK-STEP has been identified as the Technopreneur Promotion Program (TePP) "Out Reach Centre" an initiative by Department of Scientific & Industrial Research (DSIR) Govt. of India towards promoting the spirit of Entrepreneurship through funding assistance to innovators, aspiring technopreneurs and other interested groups to develop innovative products & transform the product idea into viable project.

The overall activities of NITK-STEP have helped the society in creating a considerable self employment opportunities and job generation avenues. The steady transformation among people in the region for achieving entrepreneurial culture and spirit helped the first generation Techno entrepreneurs to start more and more hi-tech industries with high value addition capabilities. In this context NITK-STEP has been recognized by MSME, New Delhi to promote their scheme "Entrepreneurial & Managerial Development of SMEs through Incubators". Department of Information Technology Govt. of India to promote their scheme "Technology Incubation & Development of Entrepreneurs' (TIDE)" and also Technology Development Board, Govt. of India, New Delhi to extend "Seed Fund Support to startup in house Incubators".

NITK-STEPhopes to enhance its activities by way of assistance to potential and existing entrepreneurs so that more and more nontraditional enterprises can be started and upgrade the skills of educated unemployed youth to enable them in getting suitable job opportunities. With the encouraging results in a short span, NITK-STEP hopes to achieve much more in the long run, tapping the growth potential in the coastal area.

VISION.

Entrepreneurship Development through Business Incubation, Innovation, Training and Skill Enhancement in a value driven and service focused environment-targeting benefits to all the participating agencies.

GOALS:

- To create healthy startup units through Business Incubation, innovative business models.

- To capitalize on the Intellectual base at academia to develop competitive units.
- To grow the spirit of Entrepreneurship, entrepreneurial thinking and leveraging entrepreneurial capabilities by promoting EDPs, TEDPs, FDPs in the region.
- To reach out to young unemployed youths in the region & improve employability through Skill Development Programmes.
- To gear up as an "Out Reach Center" to interface with innovators, funding agencies for speedy implementation of innovative projects of commercial potential.
- Networking with technologists, entrepreneurs and commercial funding agencies.
- To constantly improve the quality of value added service to our clients.

FACILITIES:

Dedicated building for Business Incubation with independent units of sizes 200, 250,280,350, 500, 650, 1250 sq.ft (Total 13 No's) to accommodate 19 units of varying employee strengths.

Video Conferencing, Executive training hall, Dedicated DG sets for 24 hrs power supply and round the clock security is there at present.

NITK- STEP is managed by BOG and presently **Prof. B. Venkatesa Perumal**, Professor I/C Dept. of Electrical & Electronics Engineering ,NITK manages day to day activities as Professor i/c. NITK-STEP And a Core Advisory Group of NITK-STEP was constituted with the following Faculty members of NITK:

Professors:

Prof. Lakshman Nandagiri Applied Mechanics and Hydraulics

Prof. K.V.Gangadharan Mechanical Engineering

Associate Professors:

Dr. Hari Prasad Dasari Chemical Engineering

Dr.Manu Basavaraju Computer Science and Engineering

Asst. Professors:

Dr.Ravi Raushan
Electrical and Electronics Engineering
Dr.Sowmya Kamath S. Information Technology Engineering
Dr.Suprabha K.R.School of Management

Existing Entrepreneurs:

1. Expert Vision Labs Pvt. Ltd.
2. Mindstack Technologies
3. Kambala Solutions Pvt. Ltd.
4. Serpro Consultations
5. Aakruthi , 3D
6. Bellare GIS Consultancy Pvt.Ltd.,
7. Avishkar
8. Penzigo Technology Solutions Pvt.Ltd (Startup company)
9. Indhra Dhanush Autonomous Platforms (OPC) Pvt.Ltd.
10. Dime Klear Pvt.Ltd.
11. Sri Shasha Prayathi Technologies Limited
12. Hitham Herbal Products
13. Apahatech Solutions LLP

Existing Entrepreneurs NITK faculty members

1. Dr.Pathipati Srihari,- (Sri Shasha Prayathi Technologies Limited)
2. Dr.Arun Mohan Isloor –(M/S Apahatech Solutions LLP)

Student Startup:

1. Shilpa K Nayana (founder and 1st Student Women Entrepreneur) MBA STUDENT @ NITK (2021) ,Biotechnology and Biochemical Engineer .

Work done by our Incubator:

One of our incubator Aakruthi3D Private Limited Mr. Raghavendra and his team supported with their extraordinary capabilities of 3D printing technology to combat COVID-19 crisis by locally manufacturing medical equipment/tools such as face shields, respirator masks, ventilator manifolds and no touch sanitary tools.

Entrepreneurship and IPR Course in Curriculum:

At present, there is a course on entrepreneurship and IPR as an open elective in the fifth year which generally runs in two sections based

on the strength of students applying for the course. The new scheme of B-Tech curriculum allows students to enroll for basic and advanced course on entrepreneurship. This course is tailored based on what industry demands. There are also faculty members who are trained resource persons in the field of Innovation and Entrepreneurship.

MOU with GINSERV:

The Institute has decided to sign an MOU with GINSERV is a TBI based in Bangalore promoted and supported by Govt. of India and JSS Mahavidyapeetha, Mysore, one of India's modernistic educational organization.
The company aims at enhancing the success rate of early stage businesses by providing the funding opportunities but also works significantly towards mentoring the start-ups on the strategy and execution to create a robust business venture/environment.

Proposed Activities to be implemented by NITK – STEP

The NITK-STEP would focus on:

1. Field level study on Skill Gap analysis

Here, an attempt would be done to investigate the trends, constraints and opportunities faced by the unorganized sector in selected villages of Dakshina Kannada district in light of the enormous changes taking place in the economy. The skill gap analysis would be made sector-wise, need of specific skill would be identified and suitable training would be provided on case by case basis.

2. Short Term Training Program:

Here, the Institute would conduct short term Training Program for 3 weeks to the emerging enterpreneurs, nearby engineering college students and faculty members. The program also aims at strengthening the knowledge in the area of IPR to MSMEs, entrepreneurs and academicians in particular

3. Enterpreneurship Development:

Here, the primary focus of the center is to encourage and identify students and faculty members and people in the rural areas with specific ideas and handhold them towards setting up enterprises. Need based training would be planned on a weekly basis to the emerging enterpreneurs. End to end mentoring support in various areas based on their specific needs (starting from licensing to marketing the finished product) would be provided.
In addition, entrepreneurship awareness camps would be conducted in the villages of Dakshina Kannada district to encourage towards entrepreneurship.

4. Proposals would also be sent to DST, Government of India Government of Karnataka, MRPL and other agencies for entrepreneurship and technology development activities at the Institute.

Training Programmes Conducted:

Name of Program	Program Start Date	Program End Date	Program Duration (in Days / months)	Total No. of Participants
Workshop on Geomatics conducted for M.Tech.Students of Manipal Institute of Technology	02.01.2020	06.01.2020	07 days	19
German Language course (Third batch)	20.01.2020	31.03.02020	03 Months	16
Python in Action -05 Days Workshop on Python & its Applications-Registration	03.02.2020	07.02.2020	06 days	12
Chemical and Oil Spill Management(COSM-2020)	07.02.2020	08.02.2020	02 days	50
Webinar on Brain-Computer Interface (conducted Online workshop)	05.06.2020	06.06.2020	02 days	2000
FDP on Machine Learning using Python. (conducted Online workshop)	09.07.2020	11.07.2020	03 days	156
FDP on Internet of Things. (conducted Online workshop)	16.07.2020	18.07.2020	03 days	110

20.2 CENTRE FOR CONTINUING EDUCATION (C.C.E)

Details of Short term courses conducted through CCE-NITK from April 2019 to March 2020

Sl. No.	Title of the Course	Duration	Organized through	Name of the Course Coordinators	No. of Participants attended	Course Intended for
1	Summer School on " Deep Learning"	17-05-2019 to 21-05-2019	Department of Computer Science Engineering, NITK	Dr. Jeny Rajan and Dr. Venkatesan	50	Faculty and Students of NITK, sponsored by NITK, Surathkal
2	"Drone Survey and 3D Mapping"	26-08-2019 to 30-08-2019	Department of Civil Engineering, NITK	Dr. Pruthviraj U.	19	The Practicing Engineers deputed from various Karnataka Government Departments sponsored by Engineering Staff College, K.R.Sagara.
3	"Quality Management System in Civil Engineering"	23-09-2019 to 27-09-2019	Department of Civil Engineering, NITK	Dr. B.B. Das and Dr. Azhoni	18	The Practicing Engineers deputed from various Karnataka Government Departments sponsored by Engineering Staff College, K.R.Sagara.
4	"Design, Construction and Maintenance of all Weather Roads"	14-10-2019 to 18-10-2019	Department of Civil Engineering, NITK	Dr. Raviraj H.M.	16	The Practicing Engineers deputed from various Karnataka Government Departments sponsored by Engineering Staff College, K.R.Sagara.
5	"Disaster Prevention"	09-12-2019 to 13-12-2019	Department of Civil Engineering, NITK	Dr. B.M. Sunil and Dr. Babloo Chaudhary	03	The Practicing Engineers deputed from various Karnataka Government Departments sponsored by Engineering Staff College, K.R.Sagara.
6	"Simulation of Underwater Communication"	09-12-2019 to 13-12-2019	Department of Computer Science Engineering, NITK	Dr. Chandavarkar	17	Faculty of Engineering & Diploma Institutions, Industry Personnel & Students of Ph.D/PG/UG

21. FINANCE AND ACCOUNTS

Expenditure position for the last three years:-

Year	Plan (Rs. In Lakhs)	Non Plan (Rs. In Lakhs)	Total
2017-18	9084.36	12764.00	21848.36
2018-19	5413.50	15067.04	20480.54
2019-20	1094.76	16311.21	17405.97

BALANCE SHEET AS AT 31-03-2020			
			(AMOUNT - Rs.)
PARTICULARS	**SCH. NO.**	**CURRENT YEAR**	**PREVIOUS YEAR**
SOURCE OF FUNDS :			
CORPUS/CAPITAL FUND	1	(75,85,777)	19,48,68,495
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2	3,27,81,89,351	3,04,12,16,651
LOANS/BORROWINGS	3	12,65,88,449	
CURRENT LIABILITIES AND PROVISIONS	4	5,85,52,99,993	5,26,79,23,971
TEQIP PROJECT - PHASE III	26	1,59,07,028	1,23,48,932
TOTAL		**9,26,83,99,044**	**8,51,63,58,049**
APPLICATION OF FUNDS :			
FIXED ASSETS	5		
Tangible Assets	5(A)+ (D- ii)	3,58,19,80,526	3,54,33,01,719
Intangible Assets	5(c)	247	82,81,801
Capital Works-In-Progress	5(B)	78,84,56,410	67,72,34,141
INVESTMENTS FROM EARMARKED/	6		
ENDOWMENT FUNDS			
Long Term		3,29,25,71,692	3,00,21,75,678
Short Term		-	-
INVESTMENTS - OTHERS	7	-	-
CURRENT ASSETS	8	1,01,36,60,383	61,75,15,749
LOANS, ADVANCES & DEPOSITES	9	57,58,22,758	65,55,00,029
TEQIP PROJECT - PHASE III	26	1,59,07,028	1,23,48,932
TOTAL		**9,26,83,99,044**	**8,51,63,58,049**
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	25		

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2020			
			(AMOUNT - Rs.)
PARTICULARS	**SC.NO.**	**CURRENT YEAR**	**PREVIOUS YEAR**
INCOME:			
ACADEMIC RECEIPTS	10	35,92,31,468	35,53,35,698
GRANTS/SUBSIDIES	11	1,63,11,21,368	1,41,00,64,378
INCOME FROM INVESTMENTS	12	1,61,63,188	1,15,63,558
INTEREST EARNED	13	35,82,379	10,90,655
OTHER INCOME	14	23,35,78,847	19,73,30,544
OTHER RESEARCH PROJECTS		14,50,39,136	9,43,43,983
PRIOR PERIOD INCOME	15	-	-
TOTAL (A)		**2,38,87,16,386**	**2,06,97,28,816**
EXPENDITURE:			
STAFF PAYMENTS & BENEFITS	16	1,63,01,17,311	1,31,10,60,030
ACADEMIC EXPENSES	17	43,43,99,141	42,08,16,300
ADMINISTRATIVE & GENERAL EXPENSES	18	32,09,03,127	25,55,22,869
TRANSPORTATION EXPENSES	19	15,65,442	15,67,877
REPAIRS & MAINTENACE	20	12,76,88,498	9,42,33,326
FINANCE COST	21	54,80,327	-
DEPRECIATION	5	20,12,30,981	35,13,11,889
OTHER EXPENSES	22	7,92,92,644	21,97,82,064
PRIOR PERIOD EXPENSES	23	-	-
TOTAL (B)		**2,80,06,77,471**	**2,65,42,94,356**
BALANCE:			
EXCESS OF EXPENDITURE OVER INCOME	(A-B)	**41,19,61,085**	**58,45,65,540**
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	25		

RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31-03-2020									
RECEIPTS			**Current Year**	**Previous Year**		**PAYMENTS**		**Current Year**	**Previous Year**
Opening Balances:						Expenses:			
(a) Cash in hand			7,178	1,829		(a) Establishment Expenses	1,32,37,08,937		
(b) Bank Balances:						(b) Administrative Expenses	57,65,47,648	1,90,02,56,585	1,54,25,47,895
(i) In current accounts			6,98,91,862	69,28,016					
(ii) Savings acconts			4,38,36,079	12,85,18,729		Payments Against Earmarked/ Endowment Funds		21,22,36,366	5,24,82,215
(iii) HEFA acconts			9,125	-					
Grants Received:						Payments Against Sponsored Projects/ Schmes		24,91,54,725	18,72,75,396
(a) From Govt. of India									
Capital Grant	27,52,00,000					Investments Made		1,68,50,09,359	1,80,69,31,412
Revenue Grant	1,62,82,66,432		1,90,34,66,432	2,50,40,56,000		Out of Earmarked/Endowment Fund			
(b) From State Governement			-	-		Out of Own Fund			
Academic Receipts			44,48,23,110	34,23,37,932		Expenditure on Fixed Assets &		34,20,05,221	42,53,38,582
						Capital Work - in - progress:			
Receipts Against Earmarked/Endowment Funds			45,69,85,431	52,30,19,639					
						Deposits & Advances		1,37,68,89,484	1,24,42,39,336

Receipts Against Sponsored Projects/ Schmes/Plan			61,55,75,239	24,32,16,813						
						Payments made against				
Income on Investments.			1,61,63,188	1,07,66,669		Funds for various projects:			2,60,29,22,362	2,19,73,77,031
Interest Receved :			35,82,379	6,52,431		Any Other Payments :			98,65,68,646	75,49,76,453
Deposits & Advances			1,58,51,53,408	1,08,17,49,347		Closing Balances:				
						(a) Cash in hand			33,617	7,178
Investments Encashed/matured			98,32,47,879	81,22,86,679		(b) Bank Balances:				
						(i) In current accounts			1,69,11,111	6,98,91,862
Any other receipts:			3,33,51,32,995	2,67,13,78,479		(ii) Savings acconts			8,54,50,844	4,38,36,079
						(iii) HEFA acconts			4,35,985	9,125
TOTAL			**9,45,78,74,305**	**8,32,49,12,564**		**TOTAL**			**9,45,78,74,305**	**8,32,49,12,564**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL

MANGALORE - 575 025 INDIA

AUDIT REPORT 2019-20

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AUDIT REPORT 2019-2020

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SEPARATE AUDIT REPORT ON THE ACCOUNTS OF THE NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA, SURATHKAL, MANGALORE FOR THE YEAR 2019-20.

We have audited the attached Balance Sheet of National Institute of Technology, Surathkal, Mangalore, as at 31 March 2020 and the Income & Expenditure Account / Receipts & Payment Account for the year ended on that date under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The audit on the accounts of the Director, National Institute of Technology, Karnataka, Surathkal is entrusted under the NIT Act 2007. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules and Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Reports / CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material mis-statements. An audit includes examining on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

i We have obtained all the information and explanations, which to the best of our knowledge and belief, were necessary for the purpose of our audit.

ii The Balance Sheet and Income & Expenditure Account/Receipt & Payment Account dealt with by this report have been drawn up in the format prescribed by the Government of India, Ministry of Education.

iii In our opinion, proper books of accounts and other relevant records have been maintained by the Institute in so far as it appears from our examination of such books.

iv We further report that :

(A) Financial position/Grants-in-Aid

During the financial year 2019-20, NITK received a total income of Rs.249.63 Crore (Capital grants – Rs.27.52 Crore, Revenue grants – Rs.162.83 Crore, Academic receipts – Rs.35.92 Crore and other income – Rs.23.36 Crore). An amount of Rs.11.88 Crore was also available as the Opening Balance in the said Account. Out of this Rs.233.35 Crore was utilised leaving an unutilized balance of Rs.28.16 Crore as on 31st March 2020.

(B) COMMENTS ON ACCOUNTS: - NIL -

(C) REVISION OF ACCOUNTS

NITK revised the accounts on the basis of audit observation and resubmitted the revised accounts on 25.08.2020. The effect of revision was that Income decreased by Rs.50.05 lakh and expenditure decreased by Rs.70.86 lakh.

(D) GENERAL OBSERVATION:

1. Schedule 5 – Fixed Assets & Depreciation and Schedule 24 – Significant Accounting Policies

Change in Accounting Policy in respect of depreciation accounting

Audit Scrutiny of Schedule 24 for the year 2019-20 revealed that the Institute had changed the method of depreciation from written down value method and adopted the straight line method for depreciation of assets under Schedule 5 from the year 2019-20. In the absence of the details of legacy of each Fixed Asset arrived with relevance to residual value, the residual shelf life for calculating depreciation of the current year with Straight Line Method and the impact of the value of the asset vis-à-vis depreciation as on 31st March 2020 could not be ensured.

The impact due to the change in Accounting Policy has also not been quantified.

1.1 Schedule 25 – Contingent Liabilities and Notes on Accounts

2 – Fixed Assets – 2.1 Assets purchased out of IRG – Rs.785.58 lakh

Overstatement of transfer to Corpus/Capital Fund – Rs.99.82 lakh.

A reference is invited to the aforesaid Note wherein it is stated that additions in the year to fixed assets include Rs.785.59 lakh incurred under the head Internal Revenue Generation (IRG). However, as per the details furnished by the Institute the same amounts to Rs.685.76 lakh. The difference of Rs.99.82 lakh was on account of inclusion of operating/non-plan expenditure under the said head which is not correct. Consequently, the depiction of Rs.785.59 lakh under Schedule 22 Other Expenses : Transfer of Corpus/Capital Fund to the extent of capital Expenses from IRG is also not correct as the aforesaid operating/non-plan expenditure should have been depicted separately.

v. We report that the Balance Sheet and Income & Expenditure Account/Receipt & Payment Account dealt with by this report are in agreement with the books of accounts.

vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read with the Accounting Policies and Notes on Accounts, and subject to the matters stated above and other matters mentioned in Annexure to this Audit Report gives a true and fair view in conformity with accounting principles generally accepted in India.

a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Karnataka, Surathkal as at 31 March 2020; and

b. In so far as it relates to Income & Expenditure Account of the surplus for the year ended on that date.

PRINCIPAL DIRECTOR OF AUDIT (CENTRAL)
BANGALORE

Annexure

Adequacy of Internal Audit System

The internal audit department (IAD) of the NITK is adequate as it deals with all matters relating to local/foreign purchase orders, rate contracts entered into by the institute, verification of utilisation certificates, audit of manpower management bills besides check of TA/LTC bills and claims, bills pertaining to civil works. Service matters relating to Group A, B, C and D are also dealt by the IAD. However, the manpower in the IAD could still further be strengthened.

Adequacy of Internal Control System

The prevailing internal control system is adequate. The Internal Audit Wing is excluded from the preparation of the annual accounts and no Chartered Accountants are involved in the preparation of the annual accounts.

System of physical verification of fixed assets/inventory

Physical verification of fixed assets is conducted annually, the reports of which were produced to audit for the audit period.

System of physical verification of inventory

Physical verification of inventory is conducted annually, the reports of which were produced to audit for the audit period.

Regularity in payment of statutory dues

All the statutory dues of the Institute are collected and remitted within the stipulated date besides maintaining necessary accounts.

Sd/-

PRINCIPAL DIRECTOR OF AUDIT (CENTRAL)
BANGALORE

DIRECTOR'S REPORT

Introduction

National Institute of Technology Karnataka, Surathkal formerly, Karnataka Regional Engineering College Surathkal is one of the Seventeen REC's established in the country by the Government, started in the year 1960. It was the second among the first batch of Eight RECs' set up in the Country. The Institute was upgraded as NIT and conferred Deemed University status w.e.f. 26.06.2002 as per GOI order No.F9 6/95 U3 Dt 26.06.2002 and now holds a statutory status as "Institute of National Importance" by an Act of Parliament - NIT Act notified on 15th August 2007, further amended and notified as NITSER Act 2012.

The Institute is located at Srinivasnagar, Surathkal, of Mangaluru city in Dakshina Kannada District, Karnataka State, on the West Coast National Highway (NH 66), having campus area of 295 acres.

During the year NITK has achieved significant growth in various spheres of its activities. Our efforts in teaching, infrastructure building, Research and development, Testing and Consultancy, developing entrepreneurship, and student training and placement have been responsible for NITK being placed amongst the top technological institutions in the country. We wish to acknowledge the strong support we receive in all our activities from our distinguished alumni who occupy coveted positions in the Industry.

It is now my pleasant duty to place before you, a brief report highlighting our significant achievements during the year 2019-20. I wish to place before you, some of the new initiatives taken at NITK so as to scale greater heights in teaching, research and outreach activities and get recognised as 'A National Institute with an International Recognition'.

Governance:

NITK, an Institute of National Importance, is governed by the Board of Governors, under the NITSER Act 2012 and Statutes laid down by the Govt. of India. The Board consists of representatives from Govt. of India, Govt. of Karnataka, Industry, Educationists and the Institute Senate. The Director is the Executive Head of the Institute. The day-to-day activities are carried out by the Director, with the support of Deans, Registrar, Joint Registrar, Heads of the Departments, Professor-in-charge of various activities and Assistant Registrars. Several committees have also been formed to facilitate decision-making process, effective.

Faculty and Staff:

Availability of high-quality human resources has been the major factor contributing to the success achieved in different spheres of activities at NITK, all these years. The institute is making concerted efforts to fill up all the vacant positions, both in faculty cadre as well as non-teaching staff. During the period of the report, the total number of faculty and non-faculty are 280 and 138 respectively.

Institute Ranking:

The NITK has secured 13th Rank in all India Ranking for Engineering by the NIRF and secured 33rd position in overall ranking category. The institution has moved up by 8 ranks from previous year 21 st Rank, similarly moved up 20 Rank in the overall ranking category from previously 53 rd Rank. NITK also secured 63rd Rank in the Q.S India Ranking.

Financial Support:
There has been an enhanced Revenue and Capital grants, increase in R&D funding, an increase in student intake, Testing and consultancy output and initiation of a few new infrastructural projects. The total internal revenue generation through fee collection and other receipts were Rs. 61.68 crores. Our Corpus fund and Institute Development fund has grown steadily to about Rs. 313 Crores.

NITK is the beneficiary of financial support extended to Centrally Funded Institutions under Phase-III of the World Bank Assisted TEQIP Program. Under the scheme, NITK has received a total grant of Rs. 1.69 Cr. for the year 2019-20. The main focus of this phase of the project is on the improvement of post-graduate education and enhancement of our research activities and output.

Academic Activities:
Presently, NITK offers B.Tech programs in 9 disciplines and M.Tech programs in 25 specialisations. In addition, MSc Programs are offered by both Departments, Physics and Chemistry and the MBA and MCA programs are offered by the School of Management and MACS Department respectively. While M.Tech (Research) Programs are offered in all PG specialisations, doctoral research is also being undertaken with scholars registered in all the Departments.

For the academic year 2019-20, about 953 students were admitted to the B.Tech. Program based on their scores in JEE-Mains /SAT Examinations, 585 M.Tech and M.Tech by Research through GATE, 48 in MSc, 28 in MBA and 50 in MCA. A total of 186 students joined the doctoral programs, focusing increased research at the Institute. There are about 859 Research Scholars in the Institute and during the reference year, 116 students have been awarded PhDs.

Students' performance in examinations continues to be excellent with an overall pass percentage of more than 98.80%. A large number of our students have graduated with distinction. This year too, our students have excelled in GATE-2019 and CAT-2019 examinations which have fetched them admissions to top technological and business schools of India to pursue their post-graduate programs or MBA studies. A higher percentage of students, compared to last year, have been successful in obtaining admissions to the top universities in the USA and Europe.

R & D Activities:
The Institute is steadily transforming itself into a Teaching-cum-Research Institute, with more and more R&D initiatives being pursued by the faculty. While the administration is trying to improve the research ambience in the Institute, the members of the faculty are responding to such initiatives by getting a large number of innovative R&D Projects sanctioned by various funding agencies like DST, CSIR, ICSSR, MeitY, NRB, ISRO, DHI, MoES, MoWR, MHRD and KST&PS. Also, global R&D activities are being carried out with higher learning Universities/Institutes across various countries and potential MoUs have been signed with them. Currently 19 active MoUs with highly reputed Institutes all over the world. Central Research Facility(CRF) has been set put in the Institute with HEFA funding. ISRO has set up a Regional Academic Centre-Space(RAC-S) the Institute with annual endowment of Rs.2 cr. for space related research. Centre of Excellence (CoEs also been set up in the Institute.

Infrastructural Facilities:
The following were the on-going projects during 2019-20 being executed through CPWD on deposit work basis:

Sl. No	Name of work	Estimate cost (In Rs. Crores)
1.	New Faculty apartments – One Type – V and one Type – VI (24 dwelling units in each apartment)	Rs.38.81 crore
2.	New Boys' hostel building of 500 single occupancy rooms [Block No. 10]	Rs.51.14 crore
3.	Extension of 11kV LT line from 33kV substation to western side of the campus, Transformers, DG set and a Service building	Rs. 5.49 crore

The following new Infrastructural works has been initiated in 2019-20 under HEFA loan Scheme:

Sl. No	Name of work	Estimate cost (In Rs. Crores)
1	Construction of Building for School of Interdisciplinary studies and Central Research Facility Rs.48.00 Crore.	Rs.48 crore
2	EWS Scheme – Cost of New Boys hostel of triple occupancy (Block no. 11)	Rs.43 crore

Industry-Institute Collaborations
NITK understands that the objective of effective training of our students can only be met when we have meaningful and continuous interaction with industry. Efforts are on for establishment of industry-sponsored professorial chairs, creating opportunities for training of faculty, staff and students in the collaborating industry and providing for content/skill up-gradation to industrial personnel. Active MoUs with reputed global industries and National Research agencies like Universita Degli Studi di Pavia, Italy, Arya Technocrats, Belagavi, Wadhwani Operating Foundation, Los Altos, California, USA, Eaton Technologies Pvt. Ltd, SimLife Electric Private Ltd Bangalore, Aum Techno Spray, Bangalore, IIT Bombay, Kanchanaburi Campus, Mahidol University Thailand, National Institute of Disaster Management , New Delhi, National Law School of India University Bengaluru, KIOCL Limited Mangalore, Human Resocia Co. Ltd, Japan, Department of Nanoscience & Engineering/BK21PLUS Nano Convergence Project Group of INJE University , Republic of Korea, Institute of Radio Frequency and optoelectronics Integrated Circuits plus State Key Lab of Bioelectronics, South East University. One Professorial Chair has been established with sponsorship from Ministry of Steel (GOI). Postgraduate courses are being offered in collaboration with L & T Construction, Chennai, CMTI, Bangalore and Robert Bosch, Bangalore. Also, there are outreach collaborative activities carried out in the field of Testing and Consultancy.

Training and Placement:

The Department of Training and Placement of the Institute facilitates on- campus recruitment and placement of our students and also arranges for their training/internship in Industry. NITK is one of the top preference institutions in the country to many companies for campus placements and internships. During 2019-20 the placement was 89.25% for UG and 53.4 % for PG. The recruitment process which was expected to happen in March 2020 has been carried forward on account of COVID-19 and is expected to complete by Mid of July 2020. The average salary for 2019-20 is 10.8 LPA. This year top PSU's like HPCL, IOCL, GAIL, ITI, C-DAC and ISRO visited the campus.

Social outreach activities:

Department of Chemical Engineering has developed a cost-effective technology which will help to preserve taro and remove the acridity. This has been offered free of cost to the tribal farmers of Joida Taluk in Uttarakannada District, Karnataka and the pilot scale production in the area is under progress. Under Covid19 task force, Institute has provided top most priority to effectively over come the Covid crisis. Institute Hostels were handed over to District administration for quarantine purpose. Over 1500 food kits were distributed to needy people living in nearby village area , with the generous contribution received from Staff and Alumni. The hand sanitizer and face shield prepared in the Department were distributed to District administration, Police stations, local Govt Departments and traders.

Acknowledgement and Conclusions:

At this juncture, I personally acknowledge the support and encouragement received from the Chairman and members of the Board of Governors. The members of the Senate, all my colleagues – both faculty and non-teaching members have been very supportive of all the new initiatives being contemplated and implemented. I record my appreciation for the students of the outgoing batch for their disciplined behaviour and keen participation in the activities of the Institute. Again, on behalf of all the members of Team-NITK, I wish to place on record, our gratitude to the MHRD-GOI, Govt. of Karnataka and other agencies for their constant support and encouragement.

Date: 24-08-2020
Place: Surathkal

DIRECTOR
(PROF. K.UMA MAHESHWAR RAO)

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

BALANCE SHEET AS AT 31-03-2020

(AMOUNT - Rs.)

PARTICULARS	SCH. NO.	CURRENT YEAR	PREVIOUS YEAR
SOURCE OF FUNDS :			
CORPUS/CAPITAL FUND	1	(75,85,777)	19,48,68,495
DESIGNATED/ EARMARKED/ ENDOWMENT F	2	3,27,81,89,351	3,04,12,16,651
LOANS/BORROWINGS	3	12,65,88,449	
CURRENT LIABILITIES AND PROVISIONS	4	5,85,52,99,993	5,26,79,23,971
TEQIP PROJECT - PHASE III	26	1,59,07,028	1,23,48,932
TOTAL		**9,26,83,99,044**	**8,51,63,58,049**
APPLICATION OF FUNDS :			
FIXED ASSETS	5		
Tangible Assets	5(A)+(D- ii)	3,58,19,80,526	3,54,33,01,719
Intangible Assets	5(c)	247	82,81,801
Capital Works-In-Progress	5(B)	78,84,56,410	67,72,34,141
INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	6		
Long Term		3,29,25,71,692	3,00,21,75,678
Short Term		-	-
INVESTMENTS - OTHERS	7	-	-
CURRENT ASSETS	8	1,01,36,60,383	61,75,15,749
LOANS, ADVANCES & DEPOSITES	9	57,58,22,758	65,55,00,029
TEQIP PROJECT - PHASE III	26	1,59,07,028	1,23,48,932
TOTAL		**9,26,83,99,044**	**8,51,63,58,049**
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	25		

PLACE: SURATHKAL
DATE : 24-08-2020

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL

P.O. SRINIVASNAGAR - 575 025

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2020

(AMOUNT - Rs.)

PARTICULARS	SC.NO.	CURRENT YEAR	PREVIOUS YEAR
INCOME:			
ACADEMIC RECEIPTS	10	35,92,31,468	35,53,35,698
GRANTS/SUBSIDIES	11	1,63,11,21,368	1,41,00,64,378
INCOME FROM INVESTMENTS	12	1,61,63,188	1,15,63,558
INTEREST EARNED	13	35,82,379	10,90,655
OTHER INCOME	14	23,35,78,847	19,73,30,544
OTHER RESEARCH PROJECTS		14,50,39,136	9,43,43,983
PRIOR PERIOD INCOME	15	-	-
TOTAL (A)		**2,38,87,16,386**	**2,06,97,28,816**
EXPENDITURE:			
STAFF PAYMENTS & BENEFITS	16	1,63,01,17,311	1,31,10,60,030
ACADEMIC EXPENSES	17	43,43,99,141	42,08,16,300
ADMINISTRATIVE & GENERAL EXPENSES	18	32,09,03,127	25,55,22,869
TRANSPORTATION EXPENSES	19	15,65,442	15,67,877
REPAIRS & MAINTENACE	20	12,76,88,498	9,42,33,326
FINANCE COST	21	54,80,327	-
DEPRECIATION	5	20,12,30,981	35,13,11,889
OTHER EXPENSES	22	7,92,92,644	21,97,82,064
PRIOR PERIOD EXPENSES	23	-	-
TOTAL (B)		**2,80,06,77,471**	**2,65,42,94,356**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2020

(AMOUNT - Rs.)

PARTICULARS	SC.NO.	CURRENT YEAR	PREVIOUS YEAR
BALANCE:			
EXCESS OF EXPENDITURE OVER INCOME	(A-B)	**41,19,61,085**	**58,45,65,540**
SIGNIFICANT ACCOUNTING POLICIES	24		
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	25		

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.			CURRENT YEAR	PREVIOUS YEAR
1	**CORPUS /CAPITAL FUND:**			
A	**CORPUS FUND:**			
	Balance at the Beginning of the Year		19,48,68,495	14,82,04,729
	Add: Contributions towards Corpus/Capital Fund	-		
	Add: Grants from MHRD, Govt. of India to the extent utilised for Capital Expenditure	10,94,76,415		
	Add: Assets Purchased out of Earmarked Funds	-		
	Add: Assets Purchased out of completed Sponsored Projects, Where Ownership Vests in the Institution	2,14,71,853		
	Add: Assets Purchased out of IRG	7,85,58,545	20,95,06,813	63,12,29,306
			40,43,75,308	77,94,34,035
	Less : Interest on Mobilisatin Advance .		-	-
	Less : Deficit Transferred from Income & Expenditure Account		41,19,61,085	58,45,65,540
		TOTAL - A	**(75,85,777)**	**19,48,68,495**
B	**CAPITAL FUND OF PROJECTS & EARMARKED FUNDS**			
	Opening Balance.	-		-
	Add: Assets Donated/Gift Received	22,23,639		-
	Add: Assets from Completed Projects	1,52,03,807		1,20,91,145
	Add: Assets from Workshops	4,85,943		61,950
	Add: Assets from Funds	35,58,464		48,56,743
		2,14,71,853		1,70,09,838
	Add : Additions during the year	-		-
		2,14,71,853		1,70,09,838
	Less : Assets of incomplete projects	-		-
		2,14,71,853		1,70,09,838
	Less : Transferred to Corpus Fund	2,14,71,853	-	1,70,09,838
		TOTAL - B	-	-
	BALANCE AS AT THE YEAR - END FOR SHEDULE - 1 (A+B)		**(75,85,777)**	**19,48,68,495**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA
SURATHKAL, P.O. SRINIVASNAGAR - 575 025.
SCHEDULE 2 - DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS AS ON 31-03-2020

PARTICULARS	INSTITUTE DEVELOPMENT FUND	ENDOWMENT CHAIR FUND	STUDENT ACTIVITY COUNCIL	NITK CORPUS FUND	CCE FUND	STUDENT PRIZE FUND	NIMCET 2018/19	NITK/KREC ENDOWMENT FUND	DASA	GRAND TOTAL 2019-20	GRAND TOTAL 2018-19
A											
(a) Opening Balance of the Fund	70,94,34,209	69,35,585	5,21,92,959	2,24,34,75,648	37,16,869	63,26,158	1,79,52,325	17,85,235	(6,02,338)	3,04,12,16,651	2,69,88,42,621
(b) Additions during the year											
(I) Donations/ Grants/ Fee/ Loans & Advances	-	-	1,72,83,950	7,17,31,230	4,29,926	8,52,894	80,26,316	68,16,880	5,03,06,071	15,54,47,267	26,67,29,916
(c) Income from Investments	-	4,01,929	44,24,166	14,95,81,296	2,22,213	-	11,01,891	88,584	90,47,671	16,48,67,750	14,11,94,599
(d) Interest on Savings Bank A/c.	-	-	1,03,547	75	10,548	-	-	-	-	1,14,170	8,48,127
(e) Other Additions											
(a) Consultancy Fund	1,26,58,808	-	-	-	-	-	-	-	-	1,26,58,808	80,79,245
(b) Testing & Consultancy	1,81,33,001	-	-	-	-	-	-	-	-	1,81,33,001	1,64,93,888
(c) Institute Development Fund	4,05,48,927	-	-	-	-	-	-	-	-	4,05,48,927	3,11,97,809
(d) Staff Development Fund	6,15,57,591	-	-	-	-	-	-	-	-	6,15,57,591	5,98,34,419
(e) Professional Development Fund	22,17,717	-	-	-	-	-	-	-	-	22,17,717	13,96,925
(f) Campus Development Fund	42,000	-	-	-	-	-	-	-	-	42,000	33,66,000
(g) Equipment Maintenance Fund	18,64,877	-	-	-	-	-	-	-	-	18,64,877	8,04,566
(h) Golden Jublee Fund	-	-	-	-	-	-	-	-	-	-	-
(i) III Cell Fund	4,61,386	-	-	-	-	-	-	-	-	4,61,386	2,21,802
(j) Institute Scholership Fund	-	-	-	-	-	-	-	-	-	-	-
(k) Staff Welfare Fund	4,89,523	-	-	-	-	-	-	-	-	4,89,523	5,56,925
(l) Miscellaneous Income	-	-	30,500	-	-	-	-	4,660	-	35,160	-
(g) Transfer/TDS	-	-	-	-	-	-	-	-	-	-	-
TOTAL A	**84,74,08,039**	**73,37,514**	**7,40,35,122**	**2,46,47,88,249**	**43,79,556**	**71,79,052**	**2,70,80,532**	**86,95,359**	**5,87,51,404**	**3,49,96,54,827**	**3,22,95,66,842**
B											
Utilisation/ Expenditure towards Objectives of Funds :											
(I) Capital Expenditure											
Fixed Assets	2,65,908	-	39,450	18,03,866	-	-	11,38,521	-	3,10,719	35,58,464	45,30,236
(II) Revenue Expenditure											
Salaries, Wages & Allowances Etc	-	-	-	-	1,17,566	-	10,00,000	-	6,54,752	17,72,318	17,41,104
Other Administrative/ Activity Expenses	2,89,04,396	-	96,84,815	-	4,11,534	-	69,90,955	68,641	44,14,371	5,04,74,711	3,86,82,847
Sports & Games/Swimming Pool	-	-	94,23,615	-	-	-	-	-	-	94,23,615	81,81,122
(III) Transfer/ Refund-Admission Fee/TDS	-	-	-	15,62,36,368	-	-	-	-	-	15,62,36,368	13,52,14,883
TOTAL B	**2,91,70,304**	**-**	**1,91,47,880**	**15,80,40,234**	**5,29,100**	**-**	**91,29,476**	**68,641**	**53,79,842**	**22,14,65,476**	**18,83,50,191**
Closing Balance at the year end (A-B)	**81,82,37,735**	**73,37,514**	**5,48,87,243**	**2,30,67,48,015**	**38,50,456**	**71,79,052**	**1,79,51,056**	**86,26,718**	**5,33,71,563**	**3,27,81,89,351**	**3,04,12,16,651**
Represented by											
Cash & Bank Balance	-	-	29,25,258	12,98,923	3,19,593	-	13,25,302	70,87,112	44,56,405	1,74,12,593	1,50,81,484
Investments	81,82,37,735	73,37,514	5,10,52,633	2,39,88,49,545	34,23,428	71,79,052	1,73,28,040	15,80,592	5,04,00,000	3,35,53,88,539	2,87,32,91,067
Interest Accrued but not due	-	-	1,48,087	69,56,028	53,177	-	80,760	-	21,45,083	93,83,135	9,81,34,465
TDS	-	-	13,42,376	5,58,79,886	54,257	-	1,20,479	9,019	9,04,768	5,83,10,785	4,80,67,623
Sundry Creditors/Payables	-	-	(8,09,913)	(15,62,36,368)	-	-	(9,03,525)	(50,005)	(48,79,993)	(16,28,79,804)	(14,02,49,966)
Misc Advance/Receivable	-	-	2,28,802	-	-	-	-	-	3,45,300	5,74,102	14,68,91,977
TOTAL	**81,82,37,735**	**73,37,514**	**5,48,87,243**	**2,30,67,48,015**	**38,50,455**	**71,79,052**	**1,79,51,056**	**86,26,718**	**5,33,71,563**	**3,27,81,89,351**	**3,04,12,16,650**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
3	**LOANS/BORROWINGS :**		
A	**SECURED LOANS**		
	1. Central Government	-	-
	2. State Government (Specify)	-	-
	3. Financial Institutions		
	a) Term Loans	-	-
	b) Interest accrued and due	-	-
	4. Banks:		
	a) Term Loans	-	-
	- Interest accrued and due	-	-
	b) Other Loans (Specify)	-	-
	- Interest accrued and due	-	-
	5. Other Institutions and Agencies	-	-
	6. Debentures and Bonds	-	-
	7. Others (Specify)	-	-
	Total	**-**	**-**
	Note: Amounts due within one year		
B	**UNSECURED LOANS**		
	1. Central Government	-	-
	2. State Government (Specify)	-	-
	3. Financial Institutions	-	-
	4. Banks:	-	-
	a) Term Loans	-	-
	i) HEFA Loan A/c.No.0010110000070	7,75,60,284	
	ii) HEFA Loan A/c.No.0010110000075	4,90,28,165	12,65,88,449
	b) Other Loans (Specify)	-	-
	5. Other Institutions and Agencies	-	-
	6. Debentures and Bonds	-	-
	7. Fixed Deposits	-	-
	8. Others (Specify)	-	-
	Total	**12,65,88,449**	**-**
	Note: Amounts due within one year	12,80,00,000	
BALANCE AS AT THE YEAR - END FOR SHEDULE - 3 (A+B)		**12,65,88,449**	**-**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
4 CURRENT LIABILITIES AND PROVISIONS:			
A. CURRENT LIABILITIES:			
1 Deposits from Staff & Lease		6,95,517	13,32,224
2 Deposits from Students		2,79,16,226	2,48,14,646
3 Sundry Creditors - Others			
Student Activity Council			
a) Liability for Expenses	809913.28		22,89,474
Deposit: Institute Development Fund	-		21,28,366
DASA 2019	4879993.00		10,10,000
NITK/KREC Endowment Fund	50004.78		-
NIMCET	903525.00		-
NITK Corpus Fund			
a) Liability towards Security Deposit	-		12,584
b) DASA Admission Fee Payable	-		17,23,025
c) Payable to NITK - IRG	15,62,36,368	16,28,79,804	13,52,14,883
TEQIP - II Payable to NPIU		-	-
4 Deposit - Others		7,53,92,625	4,48,30,239
5 Statutory Liabilities			
a) Overdue		-	-
b) Others		-	-
6 MHRD Surplus Grant		28,16,22,373	11,87,53,724
7 Other Current Liabilities			
Bills Payable	13,18,15,445		24,80,81,775
Salary Deductions	13,43,456		9,11,636
Projects/Other Reseaech Schemes:	21,61,11,473		25,45,64,211
SC/ST Student Fee Refundable	-		16,50,000
SC/ST Scholarship Grant	4,47,627		7,65,272
Workshop/seminar Grant	64,57,886	35,61,75,886	32,80,086
TOTAL (A)		90,46,82,431	84,13,62,145

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.			CURRENT YEAR	PREVIOUS YEAR
B.	**PROVISIONS:**			
1	Gratuity		34,26,43,959	32,05,95,134
2	Superannuation Pension		4,12,73,57,976	3,69,60,87,277
3	Accumulated Leave Encashment		36,65,79,777	30,97,46,333
4	Audit Fee		1,50,000	2,78,865
5	Children Education allowance		70,74,300	59,97,853
6	Electricity charges		22,00,000	30,57,571
7	Fellowship/Stipend		3,14,33,169	2,71,00,000
8	Hostel Establishment Charges		13,83,325	31,38,334
9	Mtce of Electrical Installation		2,21,140	-
10	Mtce of Waste Water Disposal		3,23,137	-
11	Merit Cum Means Scholarship		27,68,000	-
12	Merit Scholarship		5,80,000	-
13	Pay & Allowance		6,25,76,179	5,82,24,346
15	Professional Fee		2,79,660	-
16	Rate & Taxes		17,59,577	-
17	Visveshwarayya Phd Sch.for EC & IT		2454234.00	10,76,930
18	Telephone /Telex		94,036	-
19	Travelling Allowance		6,360	-
20	Water Supply		7,32,733	12,59,183
	TOTAL (B)		4,95,06,17,562	4,42,65,61,826
BALANCE AS AT THE YEAR - END FOR SCHEDULE - 4		**(A + B)**	**5,85,52,99,993**	**5,26,79,23,971**

SCHEDULE 4(A): SPONDORED PROJECTS

Sl.No.	PARTICULARS	OPENING BALANCE	RECEIPTS	INTEREST	EXPENDITURE	CLOSING BALANCE
1	5G Project Funding - Mohit Titlani	3294321	847800	73930	2919958	1296093
2	Alumni Android Based Home Automtn - Venkatesh P	113829	0	3255	27764	89320
3	Alumni DC Hoome Sikar Based Grid- Suresh Y	114016	0	2394	78200	38210
4	Alumni-Desig Dev of 3D Printed Heart - Mritunjay D	25000	0		24957	43
5	Alumni-Design & Dev - Brain Computer	78342	10000	2178	51004	39516
6	Alumni- Design & Dev - Terrain Vehicle - Pruthviraj	438372	100251	2817	535183	6257
7	Alumni-Design & Devt of Swirl Generator -Anish S	25000	0	875		25875
8	Alumni-Develop of Dense & Porous - Rajasekaran	100000	0	3500		103500
9	Alumni-Dev of Battery Mgt - R Kalpana	20000	0	700		20700
10	Alumni-Evaluation of Novel Clot - Prasanna B D	330000	0	7272	209528	127744
11	Alumni-Extraction of Anthocyanins - I Regupathi	250000	0	3691	247800	5891
12	Alumni-High Attitude Wind Power - Yashwant Kashyap	158039	0	3544	157397	4186
13	Alumni-Mode Design of Chrumophones- A V Adhikari	92000	0	1820	48000	45820
14	Alumni-NBO-Sumanth Govindarajan		25000	510		25510
15	Alumni Proj.Open Source G I S - Pruthviraj U	279288	50005	5572	334865	0
16	Alumni-Prototype of Reliable ICN- Mohit P T	100000	0	3500		103500
17	Alumni-Robocon Project - K V Gangadharan	127651	0	3870	122134	9387
18	Alumni-Rotating Packed Disc Bioreactor - Keyur Ra	66510	0	2067	17747	50830
19	Alumni Silent Speech Interface Dev - Krishnan	103580	0	2582	71516	34646
20	Boeing Company- Vijay Desai	953024	0	32928	13327	972625
21	Building Capacity & Collaborative Res-Saidatta	1050988	368156	46449		1465593
22	Computational Studies of Thermo-Ajith	243955	0	8538		252493
23	CSD-Student Project - AGV	7372	0	183	6455	1100
24	CSIR-BIOMASS Fuel Burning-Dr Gangamma	5703	0		5703	0
25	CSIR - Chemo - Dr Saikat Dutta	220886	0	7731		228617
26	CSIR-Devt of Novel - Krishna Bhat	52372	249399	5470		307241
27	CSIR-Vanadium-Dr Sib Sankar Mal		261409		261409	0
28	CSRI-Auto System for Identification -Shashidhar	602406	0	16310	312634	306082
29	DBT-Social Economic-A Azhoni		1301680	27277	457732	871225
30	Design Innovation Center -S.M.Kulkarni	1817054	0	36690	1120218	733526
31	Dev of Effuent Treatment Tech for CN- B Manu		84745	989		85734
32	Devt. of Korea Institute-Dr Hariprasad Dasari	93441	0		93441	0
33	DHI-Devt of Brushless DC- Gangadhar		2826000	8243		2834243
34	DHI Fame Project -K V Gangadharan	60060152	72530968	1374515	105335334	28630301
35	Digital India In Faculty Youth Award	2845455	0	75146	1649803	1270798
36	DRDO-Sigma Delta Space Time Adaptive- Srihari	226143	0	4526	129639	101030
37	DST-Cp-ABE Scheme Decryptn-Alwyn	1276973	0	38687	776332	539328
38	DST-CSRI-Automatic Detection & Qlfn- Jenny	458969	925000	7173	900898	490244
39	DST-Development of Composite- M Doddamani	166351	0		43660	122691
40	DST- Devl of Value -Dr.B.B.Das	219998	0		219027	971
41	DST-Devt of Solar Based Humidi -Ajay Kumar		500000	7139	485643	21496
42	DST-DS (ICPS) Multi Graph Base Anomaly- Venkatesan	1000000	0	31423	438895	592528
43	DST Fellowship - Venkatramana		843520	4137	571800	275857
44	DST-FIST-PROGRAM-HOD-CSE	329252	0	11524		340776
45	DST-FIST-PROGRAM-HOD MET. ENGG.	28504008	0	830077	15028753	14305332
46	DST-FIST-Program-HOD of App. Mech	12258452	0	429046		12687498
47	DST-Heavy Metals Removal- Keyyur Raval	347056	0	12147		359203
48	DST - HOD - Chemical Engg	6136661	0	211221	340242	6007640
49	DST - HOD - Civil Engg	2270012	0	27436	2270012	27436
50	DST-Indo-Portugal-Debabrata Karma	297925	0	10351	26321	281955
51	DST Inspire - Dr Poornesh K K	788574	0	20568	705264	103878
52	DST-INSPIRE -Faculty-Beneesh P B	703361	0		127305	576056
53	DST-Optimigation of Media - Prasanna B D		110000		103572	6428
54	DST-Renewable Synthesis-SaiKat Dutta	124953	99355		224308	0
55	DST-Standalone Evaporative Air Cooler-Venkatesh Per	678945	0	21012	104821	595136

SCHEDULE 4(A): SPONDORED PROJECTS

Sl.No.	PARTICULARS	OPENING BALANCE	RECEIPTS	INTEREST	EXPENDITURE	CLOSING BALANCE
56	DST Synthesis & Charactn-Jagadeesh Babu	228492	0	7997		236489
57	Dynamic Soil Structure-R Shivashankar	384269	0	13449		397718
58	ESTC-Coastal Ocean Tech-Dr Manu	336400	415000	7342	742057	16685
59	Experimental & Numerical - Jeyaraj P	417027	0	12132	86458	342701
60	FIST Program-Vijay Desai Mechl	7638984	0	233959	2145693	5727250
61	Framework for Deep Learning Based Analytics-Sowmya	442723	335690	12484	495173	295724
62	Glimpse of Kudremukh - Pruthviraj	9462	0	331		9793
63	Hexagon Next Gen 3D Lab-KV Gangadharan	11901	0	417		12318
64	HGML-Devt.of New Type -Harsha	173499	0	6072		179571
65	Hindustan Zinc -Services & Proleft - M R Rehman		1175280	18286	1166111	27455
66	Hutti Gold Mines-Development of Value - Aruna	163956	0	4847	63981	104822
67	IBM FACULTY AWARD- Basavaraj Talwar	316588	0		316587	1
68	I B M SUR Award - Basavaraj Talwar		2086000	66926		2152926
69	ICSSR:Reforming Higher Education for Civic-A Sreeji	7255	0	254	7255	254
70	ICSSR:Study of Adaptation to Tech Innovation-P R Je	163920	240000	6500	319737	90683
71	ICSSR: Sustainability Reporting & India Cos-Suprabh	64632	0		64632	0
72	ICSSR-Assing Impact of Climate Change - Rajesh A		162000	1418		163418
73	ICSSR-Assing the Impact of PMFBY- Rajesh A		160000	1867		161867
74	ICSSR-Exp Efficient Solutions - Ritanjali M		480000	2800		482800
75	ICSSR-Governing Extereme & Explotn- Sreejith		354480	8559	244777	118262
76	ICSSR-JSPS(Japan) -Moving Climate - Jena		500000	8046	187437	320609
77	ICSSR-Make in India Initiative- Sheena , SOM		320000	3666	23056	300610
78	ICSSR-Socio-Economic - A Azhoni		320000	3243	79057	244186
79	Imprint Project - Arun Kumar Thalla	680767	288000	25641	934894	59514
80	Indo US Methanal As A Clean-M B Saidutta	3233761	0	113182		3346943
81	Industry Sponsor Research-Imprint		42372	124		42496
82	Info.Security Education & Aware-Phase II-Alwyn	2153813	0	73930	112713	2115030
83	INSPIRE Faculty Award-Kishore Sridharan	1207767	0	42272		1250039
84	INSPIRE Project - Hari Prasad Dasari	183008	0		183008	0
85	ISRO Des & Dev of Wideband Ciruly- Krishna	472908	790263	10057	883036	390192
86	ISRO-Design &Analysis - Partha Sarathy		1637000	18678	144000	1511678
87	ISRO-Respond Dev of Automatic Land- Shyamlal		1098000	9089	150000	957089
88	Karnataka State Bio Fuel Dev Board	99048	321500	1344	117003	304889
89	KFD-Compilation -Virajpet-Pruthviraj	787	0	28		815
90	KSCST-Dr Shashidhar Koolagudi	4285	0	150		4435
91	KSCST Project	19302	0	676		19978
92	KSCT-Devt of Copper 316 Stainless -Dr.Udaya Bhat		7500		7500	0
93	KSMC - Devt. of A Communition -Dr.Harsha	977058	0	21701	624222	374537
94	KSRTC-Commuter Perception on Service Quality-Ravira	8187	0	287		8474
95	KSTePS:Experi Verification of Three Phase-Y Suresh	510208	0	17857		528065
96	KSTEPS-Des & Fab - Partha P Das		500000	4375		504375
97	KSTePS-Development of Anti-Udaya Bhat K	2030487	0	61252	1507267	584472
98	KSTEPS- Devlpt of Met - M R Rehman		500000	4359	5525	498834
99	KSTePS-Effective Online Framework-Nagamma Patil	508750	0	11026	464920	54856
100	KSTEPS-Optimal Controller Wide Speed-Parthiban		500000	4375		504375
101	KSTEPS-Synthesis of Levulinate - Sib Sankar Mal		500000	5833		505833
102	Kudremukh-Camera Trap Data- Pruthvirj U	3725	0		3705	20
103	L&T Sponsored MTech(CTM)Project	26384497	12529256	992519	6516378	33389894
104	LUH-Ger-Coffee Certificatn & Food - Jena	84375	0	1835	69360	16850
105	MEIT:Dev of Tool for Detecting of ALD- S Thilagam	441292	879000	10877	1136493	194676
106	Metallurgical Investigatin-Jagannath Nayak	62551	0	2189		64740
107	MHRD-IMPRINT Project- Hemanth Kumar	1446417	4249100	15482	2659872	3051127
108	MHRD-Virtual Lab- K.V Gangadharan	151342	0	4117	126498	28961
109	MHRD Virtual Lab Phase2 Gangadharan	614920	3652000	50017	805835	3511102
110	Ministry of Mines -Devt of Novel - Arun Isloor		500000	1391	23240	478151

SCHEDULE 4(A): SPONDORED PROJECTS

Sl.No.	PARTICULARS	OPENING BALANCE	RECEIPTS	INTEREST	EXPENDITURE	CLOSING BALANCE
111	MOES-Unraveeling Submarine-Ramesh H	1018963	0	31448	483473	566938
112	MOWR-Impact of Climate - Mahesha A	1156756	0	28507	873302	311961
113	M S T-In Vitro Mass-Dr Prasanna B D	358367	0	10190	196799	171758
114	NBHM/DAE Post Doctoral Fellow - Shubha		652000		652000	0
115	NRB-Study Corrosion - Dr Narendranath	18511	4112		22623	0
116	NRB-Theoretical Study & Design of H E - Prarthiban		2125200	29852	296081	1858971
117	Phase 3-Virtual Lab-K V Gangadharan	936955	7000000	60937	915784	7082108
118	Raptor Design -High Gain- V Preumal , EE	100000	0	3500		103500
119	Raptor Design-Voyager-V Perumal, EE	34076	0	852	23371	11557
120	R & D Project-Investigation to Reduction-Harsha Var	459413	1000	15966	48750	427629
121	Remote Sensing & GIS-K N Lokesh	60535	338036		398571	0
122	Research Training Fellowship - Rajmohan B		651667	4594	388680	267581
123	RS and GIS Tools to Support Conser	11019	0	386		11405
124	SERB: Adaptive MPPT of Grid-Tied-D Jena	399475	560000	10114	632656	336933
125	SERB:Utility Interactive BasedHybrid Power-Kalpana	85313	243486		328799	0
126	Serb-Active Vibration-Subhas C Katti	3272618	550000	71692	2773734	1120576
127	SERB-All Solution-Saumen Mandal	22952	10069		33021	0
128	SERB-Analytical & Numerical - Gnanasekaran	1087809	0	24312	858491	253630
129	SERB-Application of Kneading Theory -Murugan	116655	70000	4411	27467	163599
130	SERB-Atomistic Modelling- Kartick Tarafder	183086	0		183086	0
131	SERB-Automatic Multi Speaker- Deepu V	886282	500000		925044	461238
132	Serb-Characterize & Identiftn of Dialect-Shashidhar	209605	1000000	8607	1003908	214304
133	SERB-Compact Multi-Band Antenna - Krishnamoorthy	564360	432108	8972	851350	154090
134	SERB-Conjuctive Use - Ramesh H	444633	0	7941	427691	24883
135	SERB-Corrosion & Impedance-Shashi Bhushan Arya	1516947	0	36419	1429248	124118
136	SERB-Des & Dev of Automed Kidney Cancer-Shyamlal	1629740	0	47626	764777	912589
137	SERB-Design Analysis - Debabrata Karmakar	2642856	0	66803	2474082	235577
138	SERB - Design & Fabrication -Saurabh Chandraker		1796870	51359	138732	1709497
139	SERB-Design of Modular FPGA-B.Talawar	273114	0		273114	0
140	SERB-Des & Impln of Multi Attribute-Chandavarkar	3164870	0	100540	897094	2368316
141	SERB-Dev of Innovative - Palanisamy		1840408	15863	82500	1773771
142	SERB-Dev & Real Time Implementatn-Shyamlal	161291	0	5138	89805	76624
143	SERB-Devt & Demonstration - Hari Prasad Dasari	6534002	0	207563	1401190	5340375
144	SERB-Devt of Cost - Ajay Kumar Yadav	2850289	0	75197	2322591	602895
145	SERB-Devt. of Novel - Hari Prasad Dasari		37200		37200	0
146	SERB - Devt of Sust - Prasanna B D	394266	0	13799		408065
147	SERB-Dynamic of LOW-Shajahan	873021	0	28970	85699	816292
148	SERB-Effect of Frictional - Vadivuchezhian	454617	300000	13692	336753	431556
149	SERB-Effect of High - Debashree Chakrabborthy		2624000	14968	116133	2522835
150	SERB- Efficient Regularization Methods-Santhosh	436673	250000	9699	396610	299762
151	SERB-Experimental - Armuga Perumal	2976004	0	98118	1107000	1967122
152	SERB-Experimental Charact- Subhas Kattimani	686212	0	10861	668108	28965
153	SERB-Experimental-Dr Murigendrappa	122086	200000	1483	289657	33912
154	SERB-Experimental Invest- Sharanappa J	225336	865030	19223	720642	388947
155	SERB-Experimental & Numerical -Sathyabhama	260420	500000	12276	576851	195845
156	SERB-Expert Technique- Shivananda Nayak		2725000	86048	194000	2617048
157	SERB Fellowship- Vipin Joseph	274999	0	9625		284624
158	SERB- Generalized Framework for Restoring -Jidesh	337510	314820	13246	470892	194684
159	SERB-Grid Interfacing of Solar Power-H Nagendrappa	243170	776990	11488	605092	426556
160	SERB-High Performance-Dr Krishna Bhat	584841	0	20469		605310
161	SERB-Impact of Maternal - Keyur Raval	27440	0	742	14986	13196
162	SERB-Impounding of River - Ramesh H & Nasar	5861846	1254400	92943	4688920	2520269
163	SERB-Improvement in the Prop - Sudhakar C J	2607897	0	83674	1096373	1595198
164	SERB-Influence of Binary - B B Das	940988	630000	26151	831681	765458
165	SERB-Investigations on Origin - Poornesh K	3732350	0	111383	3318697	525036

SCHEDULE 4(A): SPONDORED PROJECTS

Sl.No.	PARTICULARS	OPENING BALANCE	RECEIPTS	INTEREST	EXPENDITURE	CLOSING BALANCE
166	SERB-Investigations - Ranjith M	254226	0	8458	52622	210062
167	SERB - Invest Induced - Anish S		1018333	5799	48333	975799
168	SERB-Optimal Damping-Dr Nasar T	277145	0	6896	119668	164373
169	SERB-Organinc Rankine - Veersetty Gumpta		2200000	18993	88000	2130993
170	SERB-Perforce Analysis & Enhanct- Prabhu Krish	1625000	0	48653	627803	1045850
171	SERB Post Doctoral Fellowship- Dr.Kalpana	148778	0	5207		153985
172	SERB-Predictive Asst of Posteral Risk-Bijay Mihir		735281	2145		737426
173	SERB-Project	450000	0	11083	200000	261083
174	SERB-Proteins at-Debashree Chakraborty	166760	400000		566760	0
175	SERB-Retinal Cysts Identifn & Quantificatn	169646	854223	13872	907150	130591
176	SERB-Selective Extraction - Regupathi	3392933	0	107859	2286862	1213930
177	SERB-Solutions for Visous & Inviscid -Engu Satyanar	423901	0	14392	41333	396960
178	SERB-Synthesis of B Cyclo - Rajmohan B	384936	788064	14814	668451	519363
179	SERB-Transition Metal - Partha P Das		500000	8860	196263	312597
180	Smart Grid Tech-COE -K P. Vittal	7837763	0	272743	195171	7915335
181	Sparc-Adaption of Climate Smrt Agri- Pradyot		1000000	14583	44997	969586
182	Sparc-Additive Manu - M Doddamani		1000000	13925	100389	913536
183	Sparc-Environmental-Dr Pritviraj		1449970	36085	1049578	436477
184	Sparc-Exploring Appns of Radiomies - Sumam		1000000	8471	955025	53446
185	SPARC Project - Hemanth Kumar		340900	7595	24657	323838
186	Spare -Coastal-Dr Ramesh H		1449970	23336	1382314	90992
187	Special Manpower Devt. Programme - DEIT-R Kini	3466031	1768000	183140	17593	5399578
188	Study on Low Temperature -GN Kumar	557037	0	19496		576533
189	TARE - Nitte - Shrikantha Rao		335000	4769	32464	307305
190	U K Project- Collaborative Research - B B Das		1412310	46678	94388	1364600
191	Unnath Bharath Abhiyan Scheme	181125	0	6339		187464
192	Usage of Granulated Slag -Kirlosker Ltd, Dr.Sunil	5369	101749	1621	17527	91212
193	Utilization of Fine Material of Mines Waste-Harsha	106074	0	3457	12764	96767
194	VGST-Dev. & Characterization -Ch S N Murthy	1026285	0	21302	818110	229477
195	V GST-Develop of Low Cost-Arun M Isloor	398458	2000000	76563	394703	2080318
196	VGST-Pre Operative-M Doddamani	71234	0		71234	0
197	Visvesvarya PhD Scheme for EC & IT	985286	12172113		13074480	82919
		254262907	**174454038**	**7971052**	**220877828**	**215810169**

SCHEDULE 4(b): SPONDORED FELLOWSHIP AND SCHOLERSHIP

Sl.No.	NAME OF SPONSOR	OPENING BALANCE AS ON 01.04.2019		TRANSACTIONS DURING THE YEAR		CLOSING BALANCE AS ON 31.03.2020	
1	2	3	4	5	6	7	8
		CR.	DR.	CR.	DR.	CR	DR.
1	AICTE GRANT QIP REGULER	207001	-	-	-	207001	-
2	AICTE GRANT QIP PLAN (POLY)	94303	-	-	-	94303	-
3	SC/ST Scholership Grant - MSJE	765272	-	1548174	1865819	447627	-
4	Other External Scholership	7466684	-	4925056	6982394	5409346	-
	TOTAL	**8533260**	**-**	**6473230**	**8848213**	**6158277**	**-**

SCHEDULE 4 (C) UNUTILIZED GRANTS FROM GOVERNMENT OF INDIA

` in lakhs

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
A. Capital Grants:		
Balance B/F	313.86	576.36
Add: Receipts during the year	2,752.00	5,151.00
Total (a)	**3,065.86**	**5,727.36**
Less: Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital Expenditure	1,094.76	5,413.50
Total (b)	**1,094.76**	**5,413.50**
Unutilized carried forward (a-b) = (A)	**1,971.10**	**313.86**
B.i)Revenue Grants: OH 31		
Balance B/F	873.68	681.63
Add: Receipts during the year	6,682.66	7,003.56
Total (c)	**7,556.34**	**7,685.19**
Less: Refunds	-	-
Less: Utilized for Non-Salary Expenditure	7,556.34	6,811.51
Total (d)	**7,556.34**	**6,811.51**
Unutilized carried forward (c-d)	**-**	**873.68**
B.ii)Revenue Grants: OH 36		
Balance B/F	-	(5,596.86)
Add: Receipts during the year	9,600.00	12,886.00
Total (c)	**9,600.00**	**7,289.14**
Less: Refunds	-	-
Less: Utilized for Salary Expenditure	8,754.87	8,255.53
Total (d)	**8,754.87**	**8,255.53**
Unutilized balance grant (c-d)	**845.13**	**(966.39)**
Add: Transfer from IRG	**-**	**966.39**
Unutilized grant Grand Total (A+B)	**2,816.22**	**1,187.54**

IRG STATEMENT 2019-20

` in lakhs

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
TOTAL INTERNAL RECEIPTS	6,168.02	5,653.20
LESS: NON SALARY EXPENDITURE	3,179.11	3,218.07
	2,988.91	**2,435.13**
Less Negative Salarary grant	-	966.39
SURPLUS UNDER CAPITAL FUND/CORPUS	**2,988.91**	**1,468.74**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA , SURATHKAL
SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULE NO. 5 FIXED ASSETS & DEPRECIATION AS ON 31-03-2020 **(AMOUNT - Rs.)**

PARTICULARS	GROSS BLOCK				RATE	DEPRECIATION			
	BALANCE AS ON 01-04-2019	ADDITIONS DURING THE YEAR	DELETIONS DURING THE YEAR	TOTAL	OF DEP.(%)	DEPRECIATION UP TO 31.03.19	DEPRECIATION FOR THE YEAR	TOTAL DEPRECIATION	BALANCE AS ON 31-03-2020
	1	2	3	4 = (1+2-3)	5	6	7	8 = (6+7)	9 = (4-8)
(A) FIXED ASSETS									
(i) Tangible Asset									
Land : Freehold	90,49,981	-	-	90,49,981	-	-	-	-	90,49,981
Buildings : Freehold.	2,37,00,99,341	7,79,68,399	-	2,44,80,67,740	2.00	54,64,58,764	4,89,61,355	59,54,20,119	1,85,26,47,621
Buildings : Freehold (Residential	37,54,08,986	3,23,318	-	37,57,32,304	2.00	3,61,87,370	75,14,646	4,37,02,016	33,20,30,288
Buildings : Freehold (Hostel).	1,03,25,27,985	25,00,830	-	1,03,50,28,815	2.00	38,85,59,008	2,07,00,576	40,92,59,584	62,57,69,231
Plant & Equipments	24,87,62,001	-	-	24,87,62,001	5.00	14,05,12,549	1,24,38,100	15,29,50,649	9,58,11,352
Vehicle	71,15,444	-	-	71,15,444	10.00	39,51,703	7,11,544	46,63,247	24,52,197
Furniture & Fixtures	20,74,46,825	1,23,46,724	-	21,97,93,549	7.50	6,97,65,790	1,64,84,516	8,62,50,306	13,35,43,243
Office Equipments	2,60,70,633	35,07,626	-	2,95,78,259	7.50	91,18,757	22,18,369	1,13,37,126	1,82,41,133
Computer & Peripherals	25,11,07,211	3,44,51,709	-	28,55,58,920	20.00	20,16,07,958	5,71,11,784	25,87,19,742	2,68,39,178
Electrical Installation	4,06,88,021	1,15,65,898	-	5,22,53,919	5.00	98,27,544	26,12,696	1,24,40,240	3,98,13,679
Library Books	2,29,01,322	3,47,965	-	2,32,49,287	10.00	1,99,66,823	23,24,929	2,22,91,752	9,57,535
Audio Visual Equipments	98,36,436	23,33,022	-	1,21,69,458	7.50	35,06,621	9,12,709	44,19,330	77,50,128
Tube Wells and Water Supply	4,97,679	2,98,059	-	7,95,738	2.00	1,53,379	15,915	1,69,294	6,26,444
Lab & Scientific Equipments	14,40,18,456	8,32,21,600	-	22,72,40,056	8.00	5,38,69,344	1,81,79,204	7,20,48,548	15,51,91,508
TOTAL 5 (A)	**4,74,55,30,321**	**22,88,65,150**	**-**	**4,97,43,95,471**		**1,48,34,85,610**	**19,01,86,343**	**1,67,36,71,953**	**3,30,07,23,518**

* Proportionate book value of land acquired by NHAI to be recoverable from GOK.

B. CAPITAL WORK IN PROGRES AS ON 31.03.2020

PARTICULARS			OP. BALANCE	ADD / TRANS.		TOTAL	TR. TO REVENUE	TR. TO ASSET	CL. BALANCE
Constn. of 5th & 6th Floor Over PG Chem			-	10,620		10,620		10,620	-
Constn. of Addl. Bldg. for Library			-	5,63,606		5,63,606		5,63,606	-
Constn. of New Boys Hostel			33,25,78,928	9,08,24,157		42,34,03,085		-	42,34,03,085
Constn. of New Faculty Apartment			30,62,33,573	5,80,58,321		36,42,91,894		-	36,42,91,894
Constn. of New Ladies Hostel			-	25,00,830		25,00,830		25,00,830	-
Constn. of New Non Faculty Apartment			-	1,73,981		1,73,981		1,73,981	-
Constn of New Sports Complex			-	1,59,12,917		1,59,12,917		1,59,12,917	-
Equipment/furniture-Annual			-	56,24,702		56,24,702		56,24,702	-
Furniture & Other Furnishings - New Comp Sc Bldg			-	21,79,732		21,79,732		21,79,732	-
Provdg 11KV HT Line 33KV Substation			3,84,21,640	2,16,57,620		6,00,79,260		6,00,79,260	-
Provdg Power Supply to New Residential Bldg			-	1,49,337		1,49,337		1,49,337	-
Prov Power Supply to New Faculty Apart			-	6,698		6,698		-	6,698
Renovtn of Room No 3 of LHC - B			-	11,66,696		11,66,696		11,66,696	-
Vertical Extn. of Applied Mech. Bldg.			-	23,000		23,000		23,000	-
Vertical Extn. of Basic Science Bldg.			-	1,39,750		1,39,750		1,39,750	-
Vertical Extn. of New Mech Engg. Block			-	72,550		72,550		72,550	-
Construction of CoE & CRF Bldg (HEFA)			-	7,54,733		7,54,733		-	7,54,733
CRF: HEFA Loan Equipment			-	4,30,00,855		4,30,00,855		4,30,00,855	-
TOTAL 5 (B)			**67,72,34,141**	**24,28,20,105**		**92,00,54,246**	**-**	**13,15,97,836**	**78,84,56,410**
Figures for 2018-19			**95,56,22,215**	**33,54,59,470**		**1,29,10,81,685**	**-**	**61,38,47,544**	**67,72,34,141**

PARTICULARS	GROSS BLOCK				RATE OF DEP.(%)	DEPRECIATION			BALANCE AS ON 31-03-2020
	BALANCE AS ON 01-04-2019	ADDITIONS DURING THE YEAR	DELETIONS DURING THE YEAR	TOTAL		DEPRECIATION UP TO 31.03.19	DEPRECIATION FOR THE YEAR	TOTAL DEPRECIATION	
	1	2	3	4 = (1+2-3)	5	6	7	8 = (6+7)	9 = (4-8)
(C) FIXED ASSETS									
Intangible Asset									
Software	2,85,50,585	23,63,170	-	3,09,13,755	40	2,10,07,287	99,06,222	3,09,13,509	246
E-Books	91,28,174	3,99,914	-	95,28,088	40	83,89,671	11,38,416	95,28,087	1
TOTAL (C)	**3,76,78,759**	**27,63,084**	**-**	**4,04,41,843**		**2,93,96,958**	**1,10,44,638**	**4,04,41,596**	**247**
TOTAL (A) + (C)	**4,78,32,09,080**	**23,16,28,234**	**-**	**5,01,48,37,314**		**1,51,28,82,568**	**20,12,30,981**	**1,71,41,13,549**	**3,30,07,23,765**
Figures for 2018-19	**4,07,94,82,424**	**70,37,26,656**	**-**	**4,78,32,09,080**		**1,16,15,70,679**	**35,13,11,889**	**1,51,28,82,568**	**3,27,03,26,512**

(D - i) FIXED ASSETS OF VARIOUS PROJECTS & FUNDS AS ON 31-03-2020

		OP. BALANCE	ADDITIONS	TRANSFER		CL. BALANCE	
OTHER RESEARCH SCHEMES							
Computer & Peripherals.		3,72,30,024	98,24,079	53,15,968		4,17,38,135	
Plant & Equipment.		4,77,06,595	-	-		4,77,06,595	
Electrical Installations.		52,71,424	16,99,703	6,52,568		63,18,559	
Furniture & Fixtures		31,28,171	1,62,960	27,000		32,64,131	
Office Equipments.		16,98,169	50,550	-		17,48,719	
Books		4,80,814	1,60,548	33,485		6,07,877	
Software		1,29,67,371	85,36,527	1,04,639		2,13,99,259	
Audio Visual Equipments		15,94,090	1,03,662	61,283		16,36,469	
Lab & Scientific Equipments		10,69,03,862	5,53,00,663	90,08,864		15,31,95,661	
TOTAL (D - i)		**21,69,80,520**	**7,58,38,692**	**1,52,03,807**		**27,76,15,405**	**-**
Figures for 2018-19		**18,99,36,339**	**3,91,35,326**	**1,20,91,145**		**21,69,80,520**	**-**

(D - ii) FIXED ASSETS OF TEQIP AS ON 31-03-2020

PARTICULARS	GROSS BLOCK				RATE OF DEP.(%)	DEPRECIATION			BALANCE AS ON 31-03-2020
	BALANCE AS ON 01-04-2019	ADDITIONS DURING THE YEAR	DELETIONS DURING THE YEAR	TOTAL		DEPRECIATION UP TO 31.03.18	DEPRECIATION FOR THE YEAR	TOTAL DEPRECIATION	
	1	2	3	4 = (1+2-3)	5	6	7	8 = (6+7)	9 = (4-8)
TEQIP I Assets	18,42,37,765	-	-	18,42,37,765	-	-	-	-	18,42,37,765
TEQIP II Assets	9,70,19,243	-	-	9,70,19,243	-	-	-	-	9,70,19,243
TOTAL (D - ii)	**28,12,57,008**	**-**	**-**	**28,12,57,008**		**-**	**-**	**-**	**28,12,57,008**
GRAND TOTAL (A) + (C) + (D - ii)									**3,58,19,80,773**
Figures for 2018-19									**3,55,15,83,520**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

SURATHKAL

P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
6 INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS			
1 In Central Government Securities		-	-
2 In State Government Securities		-	-
3 Other Approved Securities		-	-
4 Shares		-	-
5 Debentures and Bonds		-	-
6 Term Deposits with Banks		-	-
Long Term Investments:			
Main Account Funds			
Balance at the beginning of the year	75,34,46,098		
Add: Additions during the year	5,87,16,525		
	81,21,62,623		
Less: Transferred/Matured.	5,16,08,304	76,05,54,319	75,34,46,098
Student Activity Council.	5,12,00,720		5,11,45,740
NIMCET	1,74,08,800		65,94,742
NITK Corpus Fund	2,40,58,05,573		2,18,60,53,309
KREC/NITK Endowment Investments	15,80,592		15,01,027
DASA	5,25,45,083		-
CCE Fund	34,76,605	2,53,20,17,373	34,34,762
7 Other		-	-
BALANCE AS AT THE YEAR - END FOR SCHEDULE -6		**3,29,25,71,692**	**3,00,21,75,678**
7 INVESTMENTS - OTHERS			
1 In Central Government Securities		-	-
2 In State Government Securities		-	-
3 Other Approved Securities		-	-
4 Shares		-	-
5 Debentures and Bonds		-	-
6 Other		-	-
BALANCE AS AT THE YEAR - END FOR SHEDULE - 7		**-**	**-**

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
8 CURRENT ASSETS			
1 Stock		-	-
2 Sundry Debtors		-	-
3 Cash and Bank Balances			
a) Cash in Hand		33,617	7,178
b) With Scheduled Banks			
In Current Accounts			
State Bank of India CA 1	57,04,893		6,39,81,575
State Bank of India CA 2	1,12,01,232		57,43,521
Syndicate Bank A/c	4,985	1,69,11,111	1,66,767
In Term Deposit Accounts			
Balance at the beginning of the year	48,86,89,177		
Add: Additions during the year	1,24,53,56,636		
	1,73,40,45,813		
Less: Transferred/Matured.	84,06,46,245	89,33,99,568	48,86,89,177
In Savings Bank Accounts			
Canara Bank - SB A/c 1	25,19,564		30,33,528
Canara Bank - HEFA Pronciple+Int	4,35,985		9,125
SBI SB Account	8,29,31,280		4,08,02,551
DASA Bank Account-SBI	44,56,405		4,07,662
SBI-CCE Fund	3,19,593		2,50,073
SBI - NIMCET	13,25,302		1,13,47,531
SBI - NITK/KREC Endowment Fund	70,87,112		2,66,221
SBI-NITK Corpus Fund	12,98,923		4,60,452
SBI-Student Activity Council	29,25,258	10,32,99,422	23,49,544
c) With non-Scheduled Banks		-	-
4 Stamps		16,665	844
BALANCE AS AT THE YEAR - END FOR SHEDULE - 8		**1,01,36,60,383**	**61,75,15,749**

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
9 LOANS, ADVANCES & DEPOSITS			
1 Advance to Employees			
a) Salary	-		-
b) Festival	-		-
c) Medical	-		-
d) Other	3,45,000	3,45,000	-
2 Long Term Advances to Employees (Interest Bearing)			
a) Vehicle Loan	-		-
b) Home Loan	-		-
c) Other	-	-	-
3 Advances and Other Amounts Recoverable in Cash or in Kind or for Value to be Received			
a) On Capital Accounts	-		-
b) To Suppliers	3,59,07,782		26,82,37,547
To CPWD	23,16,79,500		-
To Staff	152		-
To Others	12,59,284		-
c) Other			
Rent Receivable	3,85,153		53,425
Interest Receivable	4,09,285		3,94,402
Water Charges Receivable (Qtr)	24,234		-
NITK Corpus Fund - Interest Receivable	14,95,81,296		13,52,14,883
Receivable - NITK/KREC Enow Fund.	50,005		-
TDS Receivable	2,43,66,366		2,82,63,748
Pre-Deposit-Service Tax-Immovable Property	9,591		9,591
Pre-Deposit-Service Tax Penalty-T&C	2,20,209		2,20,209
Loans, Advance/Receivable of Project/ Funds			
Institute Development Fund	21,28,366		21,28,366
NITK Corpus Fund - IRG	-		14,68,73,990
NITK Corpus Fund - TDS	5,58,79,886		4,70,38,388
CCE - TDS	54,257		32,033
NIMCET - TDS	1,20,479		10,052
NITK/KREC Endowment Fund	-		17,987
NITK/KREC Endowment Fund - TDS	9,019		-
DASA	3,45,300		-

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
DASA - TDS	9,04,768		-
SAC	2,28,802		-
SAC - TDS	13,42,376	50,49,06,109	9,87,150
4 Prepaid Expenses			
a) Insurance	23,057		29,899
b) Other Expenses			
Prepaid Road Tax	864		
Prepaid Maintenance of Computers	1,08,00,000		
Prepaid Operating Cost - Library	2,25,20,693	3,33,44,614	864
5 Deposits			
a) Telephone	77,466		77,466
b) Lease Rent	-		-
c) Electricity	70,41,939		65,50,012
d) Other - Gas & Oil suppliers	1,02,120	72,21,525	1,02,120
6 Income Accrued			
a) On Investments from Earmarked/ Endowment Funds	26,63,089		33,76,666
b) On Investment - Others	-		-
c) On Loans & Advances	-		-
d) Other			
Leave Salary & Pension Receivable	19,61,944		19,37,332
SPDC Tuition Fee Receivable	-		935
Student Fee Receivable	-	46,25,033	3,18,840
7 Other - Current Assets, Recivables from UGC/Sponsored Projects			
a) Debit Balance in Sponsored Projects		-	-
b) Debit Balance in Sponsored Fellowships & Scholerships		-	-
c) Grants Receivable			
Summer School Exp Receivable	69,38,840		69,38,840
Winter School Exp Receivable	4,69,929		4,69,929
AICTE-NTMIS Grant Receivable	39,14,232		39,14,232
Ammar Ali Fee Receivable	-		4,500
CSIR Grant Receivable	11,409		-
DAE Grant Receivable	-		3,08,340
DEIT Grant Receivable	99,69,379		-

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2020

(AMOUNT Rs.)

SCH. NOs.			CURRENT YEAR	PREVIOUS YEAR
	DASA Tuition Fee Receivable	-		5,57,600
	DST Grant Receivable	11,51,136		11,51,136
	DST Interest Receivable	26,73,639		-
	GOI Proj.Grant Recivable	-		25,885
	GOK - Recoverable on Compulsory acquisition of Land by NHAI	-		43,062
	NRB Grant Receivable	4,112		
	SERB Grant Receivable	37,200		
	SERB Grant Receivable	2,10,600	2,53,80,476	2,10,600
d)	Other Receivables from UGC		-	-
8	Claims Receivable.		-	-
BALANCE AS AT THE YEAR - END FOR SHEDULE - 9			**57,58,22,758**	**65,55,00,029**

PLACE: SURATHKAL
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SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
10	**ACADEMIC RECEIPTS:**		
A	**Academic**		
	Admission Fee-College & Hostel	20,45,000	12,93,750
	Library Fee	1,02,60,500	87,57,500
	M.B.A .Tution Fee	40,70,000	39,55,000
	M.C.A .Tution Fee	1,30,30,854	1,85,15,000
	M.Sc.Tution Fee	12,75,000	14,92,500
	Phd Thesis Processing/Evaluation Fee	35,65,000	7,85,000
	Phd. Tution Fee.	1,02,67,902	1,38,36,848
	Tution Fee - M.Tech	7,46,19,085	7,09,45,771
	Tuition Fee - U.G	22,08,01,105	22,39,40,252
	TOTAL (A)	**33,99,34,446**	**34,35,21,622**
B	**Examinations**	-	-
	TOTAL (B)	**-**	**-**
C	**Other Fees**		
	Central Computing Facilities Fee	90,41,375	66,38,250
	Identity Card	3,100	14,900
	Campus Amenities	17,00,000	-
	Career Development Fee	22,91,500	-
	Certificate Fee	2,22,425	1,91,650
	Convocation Fee	34,49,750	34,56,650
	Health Care Facility	14,92,000	-
	Late Fee, Fine & Processing Fee	3,85,770	6,78,553
	TOTAL (C)	**1,85,85,920**	**1,09,80,003**
D	**Sale of Publications**		
	Application Form/Prospectus	7,11,102	8,34,073
	TOTAL (D)	**7,11,102**	**8,34,073**
E	**Other Academic Receipts**	-	-
	TOTAL (E)	**-**	**-**
	TOTAL (F) = (A)+(B)+(C)+(D)+(E)	**35,92,31,468**	**35,53,35,698**
	Less : Utilised for Capital Expenditure (G)	-	-
	TOTAL (F)-(G)	**35,92,31,468**	**35,53,35,698**
11	**GRANTS / SUBSIDIES :**		
	Balance B/F	11,87,53,724	(43,38,87,704)
	Add : Receipts during the year - Revenue Grant	1,62,82,66,432	1,98,89,56,000
	- Capital Grant (Previous Year)	-	-
	- Capital Grant	27,52,00,000	51,51,00,000
		2,02,22,20,156	2,07,01,68,296
	Less : Refund to MHRD	-	-
	Balance	2,02,22,20,156	2,07,01,68,296
	Less : Utilised for Capital Expenditure (A)	10,94,76,415	54,13,50,194
	Balance	1,91,27,43,741	1,52,88,18,102
	Less : Utilised for Revenue Expenditure (B)	1,63,11,21,368	1,41,00,64,378
	Balance C/F (C)	**28,16,22,373**	**11,87,53,724**

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SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
12	**INCOME FROM INVESTMENTS :**		
	1 Interest		
	a. On Government Securities	-	-
	b. Other Bonds / Debentures	-	-
	2 Interest on Term Deposits	18,10,30,938	15,27,58,157
	3 Income Accrued but not Due on Term Deposits	-	-
	4 Interest on Savings Bank Accounts	1,14,170	8,48,127
	5 Others	-	-
	TOTAL (A)	18,11,45,108	15,36,06,284
	Less : Transferred to Earmarked / Endowment Funds (B)	16,49,81,920	14,20,42,726
	TOTAL (A)-(B)	**1,61,63,188**	**1,15,63,558**
13	**INTEREST EARNED :**		
	1 Interest on Savings Bank Accounts	17,48,220	6,52,431
	2 On Loans	-	-
	3 On Debtors & Receivable		
	Interest on Income Tax Refund	13,79,398	-
	Interest on MESCOM Deposit	4,54,761	4,38,224
	TOTAL	**35,82,379**	**10,90,655**
14	**OTHER INCOME :**		
A	1 **Income from Land & Building**		
	Hostel Room Rent	5,37,44,476	4,51,79,796
	Rent From Building	25,17,101	21,89,389
	Rent from Guest House	28,11,312	29,69,900
	Rent from Quarters	40,01,303	34,82,513
	2 Water Charges Collection-Qtrs	5,27,344	4,45,005
	3 Water Charges-Contractor	4,17,398	3,78,364
	4 NITK Corpus Fund - Interest.	14,95,81,296	13,52,14,883
	TOTAL (A)	**21,36,00,230**	**18,98,59,850**
B	**Sale of Institute's Publications**	-	-
	TOTAL (B)	**-**	**-**
C	**Income from Holding Events**	-	-
	TOTAL (C)	**-**	**-**

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SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
D	**Other**		
1	Income from Consultancy	-	-
2	RTI Fees	-	-
3	Income from Royalty	-	-
4	Sale of Application Form (Recruitment)	27,41,989	14,40,100
5	Miscellaneious Receipts	94,66,516	9,56,383
6	Profit on Sale/Disposal of Assets		
	a) Owned Assets	-	-
	b) Assets Receoved Free of Cost	-	-
7	Gransts/Donations from Insitutions, Welfare Bodies & International Bodie	-	-
8	Others (Specify)		
	Auction Sales	11,54,800	4,73,219
	Leave Salary & Pension Contrib	27,19,916	31,08,278
	Postage Collected	7,59,101	-
	SC/ST Student Fee Refundable Written Off	16,50,000	-
	Transcript Charges	6,67,429	7,11,501
	Verification Fee	8,18,866	7,81,213
	TOTAL (D)	**1,99,78,617**	**74,70,694**
	TOTAL (A)+(B)+(C)+(D)	**23,35,78,847**	**19,73,30,544**
15	**PRIOR PERIOD INCOME**		
1	Academic Receipts	-	-
2	Income from Investments	-	-
3	Interst Earned	-	-
4	Other Income	-	-
	TOTAL	**-**	**-**
16	**STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)**		
a)	Pay Non-Teaching	19,07,34,463	18,23,02,443
b)	Pay-Teachng	57,50,13,556	52,50,12,135
c)	New Defined Pension Contribution	3,92,65,621	1,98,75,911
d)	LTC/Home Travel Concession	86,28,550	80,24,412
e)	Medical Facility	93,83,818	75,55,254
f)	Children Education Allowance	1,40,69,550	59,97,853
g)	Others		
1	Livery to Class IV Staff	-	77,788
2	Leave Salary/pension Contribution	10,70,942	-
3	Cumulative Professional Dev Allowace	92,34,310	67,64,374
4	Staff Research Project	1,27,581	
5	Training to Staff and Faculty	1,92,645	3,68,175
	TOTAL	**84,77,21,036**	**75,59,78,345**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA
SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.			CURRENT YEAR	PREVIOUS YEAR
16A	**EMPLOYEES RETIREMENT AND TERMINAL BENEFITS**			
		Opening Balance as on 0104.2019	4,32,64,28,744	4,05,50,73,305
		Add: Capitalised Value of Contributions Received from other Organisations	-	-
		Total (a)	-	-
		Less: Actual Payment during the year (b)	27,22,43,307	28,37,26,246
		Balance as on 31.03.2020 (c)	4,05,41,85,437	3,77,13,47,059
		Provision required on 31.03.2020 as per Actuarial Valuation (d)	4,83,65,81,712	4,32,64,28,744
	A	Provision to be made in the Current year (d-c)	78,23,96,275	55,50,81,685
	B	Contribution to New Pension Scheme	-	-
	C	Medical Reimbursement to Retired Employees	-	-
	D	Travel to Hometown on Retirement	-	-
	E	Deposit Linked Insurance Payment	-	-
		TOTAL	**78,23,96,275**	**55,50,81,685**
		TOTAL	**1,63,01,17,311**	**1,31,10,60,030**
17	**ACADEMIC EXPENSES**			
	a)	Field work/Participation in Conferences	10,73,200	16,16,621
	b)	Expenses on Seminars/Workshops	12,88,737	20,97,827
	c)	Payment to Visiting Faculty	24,88,511	23,24,178
	d)	Convocation Expenses	41,34,301	22,73,077
	e)	Stipend/Means-cum-merit Scholarship	33,48,000	32,94,000
	f)	SC/ST Plan Grant Exp	2,75,09,389	4,73,44,764
	g)	Others		
	1	Centre of Excellence	4,07,555	2,83,197
	2	Coaching to SC/ST Students	3,15,112	7,82,727
	3	Expert Lectures	7,71,105	8,98,062
	4	Internship-UG Non Plan	6,49,100	1,01,559
	5	NCC/NSS Activities Expenses	14,08,182	15,30,991
	6	Phd Contingencies	86,80,124	99,51,727
	7	Phd Evaluation/Viva Exp	54,28,894	-
	8	Practical Training at Mining Site	5,49,300	4,06,323
	9	Research Interaction	11,08,622	6,26,610
	10	Annual Plan Recurring Exp - PG Stipend/ Fellowship	31,47,26,618	28,25,12,372
	11	Hindi Cell Activities	88,673	-
	12	Operating Cost- Applied Mech.	17,22,932	27,00,663
	13	Operating Cost- Career Development Centre(CDC)	13,43,986	7,28,224
	14	Operating Cost- Central Computing Facilty	6,30,931	5,60,417
	15	Operating Cost - Central Research Facility	3,02,038	-
	16	Operating Cost- Chemical Engg.	54,72,557	52,39,699
	17	Operating Cost- Chemistry	47,04,212	44,27,509
	18	Operating Cost -Civil	45,28,329	36,20,465
	19	Operating Cost- Computer Engg	11,84,659	16,55,155
	20	Operating Cost- E&C Engg.	13,65,728	7,76,457
	21	Operating Cost- E&E Engg.	11,32,095	15,56,174
	22	Operating Cost- Humanities Dept.	11,67,325	15,36,844
	23	Operating Cost- Information Tech	6,90,174	6,74,480
	24	Operating Cost- Library	2,05,40,894	3,09,02,491
	25	Operating Cost- MACS Dept.	17,03,087	10,27,999
	26	Operating Cost- Mechanical Engg	62,94,404	43,49,451
	27	Operating Cost- Metallurgical Engg.	18,75,722	15,30,813
	28	Operating Cost- Mining	8,51,303	6,32,163
	29	Operating Cost- Physics	20,95,845	28,53,261
	30	Diamond Jubilee Expenses	28,17,497	-
		TOTAL	**43,43,99,141**	**42,08,16,300**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA
SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
18	**ADMINISTRATIVE AND GENERAL EXPENSES**		
	A Infrastructure		
	a) Electricity & Power	4,49,66,542	3,76,61,406
	b) Water Charges	1,61,32,634	1,58,89,429
	c) Insurance	-	-
	d) Rent, Rates & Taxes (including property tax)	17,59,577	15,99,615
	B Communication		
	e) Postage	7,33,999	2,43,652
	f) Telephone, Fax & Internet Charges	9,67,548	12,89,799
	C Others		
	g) Printing & Stationery	36,03,753	25,55,703
	h) Travelling, TA & Conveyance	78,26,525	1,06,68,206
	i) Hospitality/Entertainment	11,26,296	10,11,727
	j) Auditor Remuneration	16,035	-
	k) Professional Charges	16,94,444	21,75,000
	l) Advertisement & Publicity	24,91,293	15,63,381
	m) Magzines & Journals	62,429	50,000
	n) Hostel Establishment	1,74,63,629	1,74,03,632
	o) I R G - Contingencies	-	23,275
	p) Others		
	Dispensary	1,83,44,704	1,71,00,688
	Security Outsourcing	5,63,65,540	4,89,15,832
	Miscellaneous Expenses	23,09,043	30,27,541
	Recurring Expenses from Prjects: Other Research Project	14,50,39,136	9,43,43,983
	TOTAL	**32,09,03,127**	**25,55,22,869**
19	**TRANSPORTATION EXPENSES**		
	1 Vehicles		
	a) Running Expenses	15,65,442	15,67,877
	b) Repairs & Maintenance	-	-
	c) Insurance Expenses	-	-
	2 Vehicles taken on Rent/Lease		
	a) Rent/Lease Expenses	-	-
	3 Vehicles Hiring Expenses	-	-
	TOTAL	**15,65,442**	**15,67,877**

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA
SURATHKAL
P.O. SRINIVASNAGAR - 575 025

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2020

(AMOUNT Rs.)

SCH. NOs.		CURRENT YEAR	PREVIOUS YEAR
20	**REPAIRS & MAINTENANCE**		
a)	Building (ACB)	2,99,31,801	2,11,63,264
	Hostel	96,51,283	1,06,73,424
	Residential Bldg	33,06,454	47,50,541
b)	Furniture & Fixtures	1,49,165	44,784
c)	Machinery & Equipments	93,28,934	90,19,539
d)	Computers	2,06,81,722	1,36,41,503
e)	Gardening	40,46,349	36,26,281
f)	Others		
	Internal Telephone	20,49,485	24,63,580
	Guest House	62,54,050	55,51,622
	Campus Maint/upkeeping	51,69,453	23,42,876
	Electrical Installation	1,76,40,184	1,14,70,854
	House Keeping Charges	68,22,303	-
	Maintenance of Road	68,59,780	38,48,911
	Maint. of Waste Water Disposal	54,20,684	53,16,767
	Swachha Bharath Abhiyan	26,851	69,380
	NIT Transit House	3,50,000	2,50,000
	TOTAL	**12,76,88,498**	**9,42,33,326**
21	**FINANCE COSTS**		
a)	Bank Charges	18,23,260	-
b)	Others	36,57,067	-
	TOTAL	**54,80,327**	**-**
22	**OTHER EXPENSES**		
a)	IRG-Asset & Utility Mapping for NITK	3,56,812	38,800
b)	Transfer to Corpus/Capital fund to the extent of Capital expenses from IRG	7,85,58,545	7,28,69,274
c)	Provision for Bad & Doutful Debts/Advances	-	-
d)	Irrecoverable Balances Written Off	3,77,287	-
e)	Grants/Subsidies to other Insitutions/Organisations	-	-
f)	Others : Surplus of Internal Generation over Non-Salary Expenditure transferred to NITK Corpus Fund	-	14,68,73,990
	TOTAL	**7,92,92,644**	**21,97,82,064**
23	**PRIOR PERIOD EXPENSES**		
1	Establishment Expenses :	-	-
2	Academic Expenses	-	-
3	Administrative Expenses	-	-
4	Transportation Expenses	-	-
5	Repairs & Maintenance	-	-
6	Othere Expenses - Depreciation on Fund/Project Asssets	-	-
	TOTAL	**-**	**-**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31-03-2020

RECEIPTS		Current Year	Previous Year	PAYMENTS		Current Year	Previous Year
Opening Balances:				Expenses:			
(a) Cash in hand		7,178	1,829	(a) Establishment Expenses	1,32,37,08,937		
(b) Bank Balances:				(b) Administrative Expenses	57,65,47,648	1,90,02,56,585	1,54,25,47,895
(i) In current accounts		6,98,91,862	69,28,016				
(ii) Savings acconts		4,38,36,079	12,85,18,729	Payments Against Earmarked/Endowment Funds		21,22,36,366	5,24,82,215
(iii) HEFA acconts		9,125	-				
Grants Received:				Payments Against Sponsored Projects/Schmes		24,91,54,725	18,72,75,396
(a) From Govt. of India							
Capital Grant	27,52,00,000			Investments Made		1,68,50,09,359	1,80,69,31,412
Revenue Grant	1,62,82,66,432	1,90,34,66,432	2,50,40,56,000	Out of Earmarked/Endowment Fund			
(b) From State Governement		-	-	Out of Own Fund			
Academic Receipts		44,48,23,110	34,23,37,932	Expenditure on Fixed Assets & Capital Work - in - progress:		34,20,05,221	42,53,38,582
Receipts Against Earmarked/Endowment Funds		45,69,85,431	52,30,19,639				
				Deposits & Advances		1,37,68,89,484	1,24,42,39,336
Receipts Against Sponsored Projects/Schmes/Plan		61,55,75,239	24,32,16,813				
				Payments made against			
Income on Investments.		1,61,63,188	1,07,66,669	Funds for various projects:		2,60,29,22,362	2,19,73,77,031
Interest Receved :		35,82,379	6,52,431	Any Other Payments :		98,65,68,646	75,49,76,453
Deposits & Advances		1,58,51,53,408	1,08,17,49,347	Closing Balances:			
				(a) Cash in hand		33,617	7,178
Investments Encashed/matured		98,32,47,879	81,22,86,679	(b) Bank Balances:			
				(i) In current accounts		1,69,11,111	6,98,91,862
Any other receipts:		3,33,51,32,995	2,67,13,78,479	(ii) Savings acconts		8,54,50,844	4,38,36,079
				(iii) HEFA acconts		4,35,985	9,125
TOTAL		**9,45,78,74,305**	**8,32,49,12,564**	**TOTAL**		**9,45,78,74,305**	**8,32,49,12,564**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL, P.O. SRINIVASNAGAR - 575 025

SCHEDULE: 24

SIGNIFICANT ACCOUNTING POLICIES (2019-20)

1. BASIS FOR PREPARATION OF ACCOUNTS

The accounts are prepared under Accrual method of accounting.

2. REVENUE RECOGNITION

2.1 Revenues are recognised on accrual basis except for interests on Savings Bank Accounts.

3. FIXED ASSETS AND DEPRECIATION

3.1 Fixed assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.

3.2 Fixed assets are valued at cost less accumulated depreciation under different blocks. During the year depreciation is provided under Straight Line method. (Detailed working is given in the Schedule No. 5 to the Balance Sheet). Where the value of the asset is becomes nil due to depreciation, it will be carried at a residual value of Re.l in the Balance Sheet and will not be further depreciated. Thereafter, depreciation is calculated on the additions of each year separately at the rate of depreciation applicable for that asset head. Depreciation is provided for the whole year on additions during the year.

3.3 The total value of assets acquired out of the Earmarked fund and sponsored funds of completed projects has been incorporated in the books of accounts and considered as Institute assets. The assets acquired from the ongoing sponsored projects are held and used by the Institution are not included in **Schedule 5**.

3.4 Intangible Assets: E-Journals and Computer Software are grouped under Intangible Assets.

4. STOCKS:

Expenditure on the purchase of chemicals, glassware, Stationary and other stores is accounted as revenue expenditure.

5. RETIREMENT BENEFITS

Employees Gratuity, Leave Encashment and Pension liability has been valued by the actuaries and the same has been incorporated in the statement of accounts during the financial year 2019-20. Ref: **Notes on Accounts Sl. No. 9**.

6. INVESTMENTS

Investments are stated at cost and the same is disclosed in detail as per the standard format.

7. EARMARKED/ENDOWMENT FUNDS

The income from investments is credited on an accrual basis to the respective Funds. The expenditures are debited to the Fund. The assets created out of Earmarked Funds where the ownership Vests in the institution, are merged with the assets of the Institution by crediting an equal amount to the Capital Fund. The balance in the respective funds is carried forward and is represented on the assets side by the balance at Bank, Investments and accrued interest.

7.1 NITK CORPUS FUND

The fee received from DASA students, Institution share of Consultancy fees and surplus Revenue over expenses of the Institute (IRG) are considered to Corpus fund. Income earned from the investment is added to the Fund. Only the investment Interest earned under the Corpus Fund may be utilised for both Revenue and Capital expenditure based on the guidelines of the Institution. The 44th BOG held on 23-03-2016, it was resolved to remove the upper accumulation ceiling limit for NITK Corpus Fund (FC Item No. 34.3.11 dated 23-03-2016). The interest earned out of the Investment shall be transferred to Institute Revenue account as per the BoG resolution No.53.3 dated 05.10.2018.

7.2 ENDOWMENT FUNDS

Endowment funds are received from various individual donors, Trusts and other organisations for establishing Chairs and for Medals & Prizes as specified by the Donors. The income from the investment of each Endowment Fund is added to the respective Fund. The expenditure on Medals & Prizes is met from the interest earned on the investment of the respective Endowment Funds and the balance is carried forward. The balances are represented by Investment in Fixed Deposits and balance in the Saving Bank Account and Accrued Interest on Investments.

8. GOVERNMENT (MHRD) GRANTS

8.1 Government Grants are accounted on sanction/realization basis. However, where a sanction for release of grant pertaining to the financial year is received before 31st March and the grant is actually received in the subsequent financial year, that grant is accounted on accrual basis and an equal amount is shown as receivable from the Government.

8.2 Government Grants utilised towards capital expenditure, (on an accrual basis) is transferred to the Capital Fund to the extent of the amount spent on capital expenditure.

8.3 Government grants for meeting Revenue Expenditure (on an accrual basis) are treated, to the extent utilised, as income of the year in which they are realised.

8.4 Unutilized grants (including advances paid out of such grants) are carried forward and exhibited as a liability in the Balance Sheet.

8.5 Surplus Grant from MHRD as on 31.03.2020 is ` 28,16,22,373/-. (Schedule 11 (C)).

9. HEFA LOAN

As per the Govt of India policy for providing financial assistance for creation of educational infrastructure and R&D in India's Premier Educational Institutions through HEFA, our Institute has got sanctioned HEFA loan for two major projects of Rs.128 crores. The principal amount will be repayable out of the Internal Revenue Generation of the Institute in 10 years in half yearly instalment. **(Schedule 3B)**

10. INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVESTMENTS:

To the extent not required immediately for expenditure, the amounts available against such funds are invested in Short/Long Term Deposit in Scheduled Nationalized Banks, leaving a balance in Savings Bank Accounts. Interest received, interest accrued and due and interest accrued but not due on such investments are added to the respective funds and not treated as income of the Institution.

11. SPONSORED PROJECTS

11.1 In respect of ongoing Sponsored Projects, the amounts received from sponsors are credited to the head "current liabilities and Provisions - Current Liabilities - Other Liabilities - Receipts against ongoing sponsored projects." As and when expenditure is incurred/advances are paid against such projects, or the concerned project account is debited with allocated overhead charges, the liability account is debited.

11.2 Fellowships and Scholarships sponsored by various organisations are accounted in the same way as sponsored Projects and the expenditure generally for disbursement of Fellowships, Scholarships and contingent expenditure.

11.3 The Institution awards Fellowships and Scholarships to Under Graduate and Post Graduate students, which are accounted as Academic expenses.

12. INCOME TAX

The income of the Institution is exempt from Income Tax under Section 10(23C) of the Income Tax Act. No provision for tax is therefore made in the accounts.

Date: 24-08-2020
Place: Surathkal

(RAVINDRANATH K.)
REGISTRAR

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL, P.O. SRINIVASNAGAR - 575 025

SCHEDULE: 25

CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS (2019-20):

A. CONTINGENT LIABILITIES:

1. CONTINGENT LIABILITIES:

1.1 As on 31.03.2020 following arbitration case is pending for decision with regard to the contractor. Construction of Ladies Hostel ` 29,79,122/-

1.2 Disputed demands in respect of Service Tax is ` 22,97,932/-. Presently the appeal is with the Commissioner of Central Excise (Appeals) and we have paid the mandatory pre-deposit of ` 1,72,345/- being the 7.5% of the service tax demand of ` 22,97,932/- [Appeal File No. A.No.35/16/MR/ST].

B. NOTES TO ACCOUNTS:

2. FIXED ASSETS:

2.1 Additions in the year to Fixed Assets in Schedule include Assets purchased out of Capital Grant ` 13,15,97,836/- , IRG ` 7,85,58,545/-, other designated funds ` 40,44,407/-, Gift ` 22,23,639/- . Assets Transferred from Completed Other Research Projects is ` 1,52,03,807/-.

2.2 Assets of TEQIP I & II Project Scheme of Rs. 28,12,57,008/- has been exhibited in Schedule 4 (D-ii).

Project Phase	Start of Proj(Year)	End of Proj(Year)	Total Value of Assets Acquired
TEQIP – I	**2003**	**2009**	**Rs. 18,42,37,765**
TEQIP – II	**2011**	**2017**	**Rs. 9,70,19,243**

2.3 Fixed Assets acquired out of Capital Grant, Revenue Grant and other funds have been exhibited in Sub Schedules A, B & C of the main schedule of Fixed Assets. (Schedule 5).

2.4 Depreciable fixed assets as set out in Schedule 5 do not include assets purchased out of funds of sponsored ongoing projects, as project contracts include stipulations that all such assets purchased out of project funds will remain the property of the sponsors.

2.5 During the year depreciation is calculated under SLM. Under this method the depreciation is calculated on original cost of the asset. When the depreciation is calculated on original cost of the asset, the amount of depreciation for the year is more than the opening balance of the asset under "intangible asset" and in turn it results in negative balance in closing balance of intangible assets. Hence we have kept Rs. 247 as closable balance being Re 1 per asset and depreciation amount is reduced to that extent.

3. DEPOSIT LIABILITIES –No deposit liabilities.

4. EXPENDITURE IN FOREIGN CURRENCY:
During the year 2019-20 the Institute has incurred expenditure in foreign currency and remitted the amount as under:

Type of Currency	Amount `	Purpose
Euro	2,53,235/-	Procurement
USD	7,59,541/-	Procurement
GBP	5,141/-	Procurement

5. **CURRENT ASSETS, LOANS, ADVANCES AND DEPOSITS:**
In the opinion of the Management, the current assets, Loans, Advances and Deposits have a value on realisation in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

6. The details of balances in Saving Bank Accounts, Current Accounts and Fixed Deposit Accounts with Banks shown in schedule 8 are detailed as below:

Particulars	Amount
I-Savings Bank Accounts:	
1. Institute - Canara Bank	25,19,564
2. Institute - Canara Bank - HEFA	4,35,985
3. SBI SB Account	8,29,31,280
4. DASA Bank Account-SBI	44,56,405
5. SBI-CCE Fund	3,19,593
6. SBI – NIMCET	13,25,302
7. SBI - NITK/KREC Endowment Fund	70,87,112
8. SBI-NITK Corpus Fund	12,98,923
9. SBI-Student Activity Council	29,25,258
II-Current Account:	
1. Institute - State Bank of India	57,04,893
2. Institute - State Bank of India	1,12,01,232
3. Institute - Syndicate Bank A/c	4,985
III-Term Deposits with Schedule Banks	89,33,99,568

7. Figures in the Final accounts have been rounded off to the nearest rupee.

8. Schedules 1 to 25 are annexed to and form an integral part of the Balance Sheet at 31st March 2020 and the Income &Expenditure account for the year ended on that date.

9. The existing employees' terminal benefit & Pensioners liability as per the requirement under the uniform accounting standards prescribed by the Ministry valued at ` 483.66 crores, as on 31-03-2020 by actuaries M/s. K.A.PANDIT an approved Consultants and Actuaries, Mumbai. The details are as follows:

Pension Liability	` 412.74 Crore
Leave Encashment Liability	` 36.66 Crore
Gratuity Liability	` 34.26 Crore

10. The General Provident Fund Account is owned by the members of NITK GPF Trust and are maintained separately. A Receipts & Payments Account, Income & Expenditure Account (on Accrual basis) and a Balance Sheet of General Provident Fund Accounts for the year 2019-20 have been attached to the Institute's Accounts. During the year a sum of ` 4,40,46,010/- has been collected and transferred to the GPF Trust Account [Investment Pattern : Central Govt. Securities 22.16%, State Govt. Securities 23.53%, Public Finance Bonds 29.20%, Combination of all the three categories 25.12%].

All portion of the New Pension Scheme funds of ` 2,60,91,409/- in respect of 199 employees who have been allotted PRA numbers has been transferred to National Securities Depository Limited (NSDL) - Central Record Keeping Agency (CRA).

11. WORKS IN PROGRESS:
Works in Progress is valued at cost incurred basis

12. HEFA LOAN:
During the year total loan availed from HEFA (Through Canara Bank) is Rs.12.41 Crores (Rs.7.61 Crore + Rs.4.80 Crore) and Interest charged to both Loans is Rs. 0.37 Crores. The interest on HEFA loans are treaded as revenue expenditure and shown under Schedule no.21 of Income & Expenditure Account.

13. TUITION FEE:
The tuition fee is collected on a semester basis and accounted as per semester fee collection basis even though the period is spread over to two financial years.

14. OTHER:
1. Previous year figures have been re-casted and regrouped wherever necessary in conformity with current year presentation.

2. Tuition fee exemption has been extended to all SC/ST students along with other benefits. Hence Tuition Fee is accounted on accrual basis and other benefits such as Laptop, Book allowance, Mess Allowance etc., accounted on claim basis.

3. (i)During the year 2013-14 area of the land measuring 1.40 acres of land acquired by NHAI and compensation for the same is not yet received.
(ii) Land includes measuring 78 cents of book value ` 24,014/- which was under dispute. Out of which 62 cents of land was in the revenue court was decreed in favour of the Institute and same is appealed by the party in the tribunal and 16 cents of land is under encroachment.

4. Accrued interest earned on Investments includes Rs. 1,29,30,322/- in Investments shown under schedule 6.

5. N.I.T.K. Hostel Mess Account is maintained separately. It is a separate entity governed by the NITK Hostel Trust (R).

Date: 24-08-2020
Place: Surathkal

(RAVINDRANATH K.)
REGISTRAR

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
PHASE - III
NITK SURATHKAL, SRINIVASNAAR.

RECEIPT & PAYMENT FOR THE YEAR ENDED 31ST MARCH 2020

Sl.No.	RECEIPT	Upto Previous Year Amount in Rs.	Current Year Amount in Rs.	Cumulative Amount in Rs.
1	**Opening Balance**			
	i) Cash in Hand	-	-	-
	ii) Cash at Bank	-	1,42,817	-
	iii) Fixed Deposit with Bank	-	-	-
2	**Grant**			
	TEQIP III Grant from MHRD	2,60,17,701	1,68,82,152	4,28,99,853
3	**Other**			
	Advances	2,03,000	2,37,858	4,40,858
	TDS on Payments	2,01,698	62,900	2,64,598
	TDS on Salaries	4,368.00	-	4,368
	Deposit TDS on GST	34,800.00	77,223	1,12,023
	Registration Fee Collected	1,55,115.00	-	1,55,115
	GST Collected	27,920.00	-	27,920
	Miscellaneous Receipt	4,000.00	5,500	9,500

Sl.No.	PAYMENT	Upto Previous Year Amount in Rs.	Current Year Amount in Rs.	Cumulative Amount in Rs.
1	**Procurement of Assets**			
	Books, LRs and Software	49,46,867	-	49,46,867
	Equipment	72,52,350	34,02,000	1,06,54,350
	Furniture	-	-	-
2	**Improve Student Learning**	40,64,811	31,94,958	72,59,769
3	**Research Assistantship**	2,09,549	-	2,09,549
4	**Graduates Employability**	4,82,220	-	4,82,220
5	**Faculty & Staff Development**	30,89,584	31,92,874	62,82,458
6	**Research & Development**	11,79,775	43,64,363	55,44,138
7	**MOOCs and Digital Learning**	-	-	-
8	**Mentoring/Twinning System**	11,81,648	5,28,584	17,10,232
9	**Reforms, Governance**	-	1,27,318	1,27,318
10	**Management Capacity Development**	43,037	26,226	69,263
11	**Hiring Consultancy Services**	41,300	41,300	82,600
12	**Industry-Institute Interaction**	2,03,126	6,35,707	8,38,833
13	**Incremental Operating Cost**			
	Consumables	-	-	-
	Operation & Maintenance of Equipment	21,240	9,440	30,680
	Office Expenses	1,40,212	34,416	1,74,628
	Meeting Expenses	6,81,031	1,28,244	8,09,275
	Hiring of Vehicles	-	-	-
	Travelling Expenses	3,92,344	85,361	4,77,705
	Staff Salary & Allowance	20,96,709	9,60,116	30,56,825

Sl.No.	RECEIPT	Upto Previous Year Amount in Rs.	Current Year Amount in Rs.	Cumulative Amount in Rs.
	Total	**2,66,48,602**	**1,74,08,450**	**4,39,14,235**

Sl.No.	PAYMENT	Upto Previous Year Amount in Rs.	Current Year Amount in Rs.	Cumulative Amount in Rs.
14	**Other**			
	Advance.	2,09,898	3,87,518	5,97,416
	TDS Remitted (Contractor)	2,01,698	62,900	2,64,598
	TDS Remitted (Salary)	4,368	-	4,368
	Bank Charges	1,298	649	1,947
	GST Remitted	27,920	-	27,920
	Deposit TDS on GST	34,800	77,223	1,12,023
15	**Closing Balance**			
	i) Cash in Hand	-	-	-
	ii) Cash at Bank	1,42,817	1,49,253	1,49,253
	iii) Fixed Deposit with Bank	-	-	-
	Total	**2,66,48,602**	**1,74,08,450**	**4,39,14,235**

Significant Accounting Policies and Notes to accounts form part of account

Place : Mangalore

Date : 23.06.2020

For NITIN J. SHETTY & CO
Chartered Accountants
Firm Reg. No. 008891S

sd
CA. NITIN J. SHETTY, Partner
Membership No. 025990

REGISTRAR
NITK, SURATHKAL

DIRECTOR
NITK, SURATHKAL

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
PHASE - III
NITK SURATHKAL, SRINIVASNAAR.

INCOME & EXPENDITURE FOR THE YEAR ENDED 31ST MARCH 2020

Upto Previous Year Amount in Rs.		EXPENDITURE	Current Year Amount in Rs.	Cumulative Amount in Rs.	Upto Previous Year Amount in Rs.		INCOME	Current Year Amount in Rs.	Cumulative Amount in Rs.
40,64,811	To	Improve Student Learning	31,94,958	72,59,769	1,55,115	By	Registration Fee Collected	-	1,55,115
2,09,549	"	Research Assistantship	-	2,09,549	4,000	"	Miscellaneous receipt	5,500	9,500
4,82,220	"	Graduates Employability	-	4,82,220	1,73,91,137	"	Excess of Expenditure over Income.	1,33,24,056	3,07,15,193
30,89,584	"	Faculty & Staff Development	31,92,874	62,82,458					
11,79,775	"	Research & Development	43,64,363	55,44,138					
11,81,648	"	Mentoring/Twinning System	5,28,584	17,10,232					
2,03,126	"	Industry-Institute Interaction	6,35,707	8,38,833					
41,300	"	Hiring Consultancy Services	41,300	82,600					
-	"	Reforms, Governance	1,27,318	1,27,318					
-	"	Management Capacity Development	26,226	26,226					
	"	Incremental Operating Cost							
1,40,212		Office Expenses	34,416	1,74,628					
6,81,031		Meeting Expenses	1,28,244	8,09,275					
7,29,645		Travelling Expenses	85,361	8,15,006					
14,66,613		Staff Salary & Allowance	9,60,116	24,26,729					
40,79,440		Operation & Maintenance of Equipment	9,440	40,88,880					
1,298		Bank Charges	649	1,947					
1,75,50,252		**Total**	**1,33,29,556**	**3,08,79,808**	**1,75,50,252**		**Total**	**1,33,29,556**	**3,08,79,808**

Significant Accounting Policies and Notes to accounts form part of account

Place : Mangalore
Date : 23.06.2020

For NITIN J. SHETTY & CO
Chartered Accountants
Firm Reg. No. 008891S

REGISTRAR
NITK, SURATHKAL

DIRECTOR
NITK, SURATHKAL

CA. NITIN J. SHETTY, Partner
Membership No. 025990

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
PHASE - III
NITK SURATHKAL, SRINIVASNAGAR.
BALANCE SHEET AS AT 31ST MARCH 2020

S.NO.	PARTICULARS	SCHEDULE NO.	Rs.		CURRENT YEAR Rs.		PREVIOUS YEAR Rs.
A	**SOURCE OF FUNDS**						
	Opening Balance.		1,23,48,932		49,59,882		
	Add: TEQIP III Grant received during the year from MHRD		1,68,82,152		1,69,99,619		
			2,92,31,084		2,19,59,501		
	Less : Excess of Expenditure over Income		1,33,24,056	1,59,07,028	96,10,569	1,23,48,932	
	TOTAL			**1,59,07,028**		**1,23,48,932**	
B	**APPLICATION OF FUNDS**						
	1) Fixed Assets:	I		1,56,01,217		1,21,99,217	
	2) Work in Progress			-		-	
	3) A. Current Assets, Loans and Advances:						
	a) Cash Balance		-		-		
	b) Bank Balance	II	1,49,253		1,42,817		
	c) Advance for Capital Goods		-		-		
	d) Loans and Advances		1,56,558		6,898		
			3,05,811		1,49,715		
	B. Less : Current Liabilities.		-	3,05,811	-	1,49,715	
	TOTAL			**1,59,07,028**		**1,23,48,932**	

Significant Accounting Policies and Notes to accounts forming part of account

Place : Mangalore
Date : 23.06.2020

For NITIN J. SHETTY & CO
Chartered Accountants
Firm Reg. No. 008891S

sd
CA. NITIN J. SHETTY, Partner
Membership No. 025990

REGISTRAR
NITK, SURATHKAL

DIRECTOR
NITK, SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL COLLEGE, PROVIDENT FUND TRUST BOARD.

Receipts and Payment Account for the year ended 31st March, 2020

	RECEIPTS	Amount in Rupees			PAYMENTS	Amount in Rupees	
To	**OPENING BALANCE :**			By	Interest Paid to GPF Members		22261824
	S.B.I., Surathkal, S.B. A/c. No. 1017536747-6	1881064					
	Investments	268118609	269999673	"	Interest Paid on Purchase of Investments		295977
"	**INTEREST :**			"	Premium Paid on Purchase of Investments		355500
	On Investments.	22388878					
	On Special Deposit with S.B.I., Mangalore A/C No.4	605679		"	Final/Partial Settlement to GPF Members		35220179
	On Bank Balance	226033	23220590				
				"	Audit Fee		23600
"	GPF Subscription & Interest		66307834				
				"	Bank Charges		89
"	Income Tax Refund and Interest on IT Refund		230910				
				"	**CLOSING BALANCE :**		
					S.B.I., Surathkal, S.B. A/c. No. 1017536747-6	10483230	
					Investments	291118609	301601839
			359759007				**359759007**

As per report of even date.

Place : Mangalore.
Date : 23-06-2020

Place : Mangalore.
Date : 23-06-2020

For NITIN J. SHETTY & CO.,
Chartered Accountants
Firm Reg. No. 008891S

sd

PRESIDENT **SECRETARY**

CA. NITIN J. SHETTY, Partner
Membership No. 025990

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL COLLEGE, PROVIDENT FUND .

Income and Expenditure Account for the year ended 31st March, 2020

	EXPENDITURE	Amount in Rupees		**INCOME**			Amount in Rupees
To	Interest Paid to GPF Members	22261824	By	Interest Received :			
				Interest on Investments	22388878		
"	Interest Paid on Purchase of Investments	295977		Add : Accrued Int. of Current Year	3236666		
					25625544		
"	Premium Paid on Purchase of Investments	355500		Less : Accrued Int. of Previous Year	2597478	23028066	
				Interest on Special Deposit with SBI		605679	
"	Audit Fee	23600		Interest on SB Account		226033	
				Interest on IT Refund/IT Refund		147454	24007232
"	Bank Charges	89					
"	Excess of Income over Expenditure	1070243					
		24007232					**24007232**

As per report of even date.

Place : Mangalore.
Date : 23-06-2020

Place : Mangalore.
Date : 23-06-2020

For NITIN J. SHETTY & CO.,
Chartered Accountants
Firm Reg. No. 008891S

sd

PRESIDENT **SECRETARY**

CA. NITIN J. SHETTY, Partner
Membership No. 025990

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL COLLEGE,PROVIDENT FUND.

BALANCE SHEET AS ON 31ST MARCH, 2020

LIABILITIES	Amount in Rupees		ASSETS	Amount in Rupees	
GENERAL FUND :			**INVESTMENTS :**		
Balance as per last Balance Sheet	7977015		Govt. and Other Securities	291118609	
Add : Excess of Income over Expenditure	1070243	9047258	Accrued Interest on Investments	3236666	294355275
GPF SUBSCRIPTION :			**TAX DEDUCTED AT SOURCE.**		45297
Balance as per last Balance Sheet	264748889				
Add : GPF Subscription & Interest	66307834		**CLOSING BALANCE :**		
	331056723		With SBI SB. A/c. No. 1017536747-6		10483230
Less : Final/Partial Settlement	35220179	295836544			
		304883802			**304883802**

As per report of even date.

Place : Mangalore.
Date : 23-06-2020

Place : Mangalore.
Date : 23-06-2020

For NITIN J. SHETTY & CO.,
Chartered Accountants
Firm Reg. No. 008891S

sd
CA. NITIN J. SHETTY, Partner
Membership No. 025990

PRESIDENT **SECRETARY**

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL COLLEGE, NPS TIER - 1 ACCOUNT

Receipts and Payment Account for the year ended 31st March, 2020

	RECEIPTS	Rs. Ps.	Rs. Ps.		PAYMENTS	Rs. Ps.	Rs. Ps.
To	**OPENING BALANCE :**				By Remittance to NSDL		61373486.00
	Balance with main Fund		282498.00				
				"	**CLOSING BALANCE :**		
"	**NPS Tier-I Account :**				Balance with main Fund		4266042.00
	Own Subscription	26091409.00					
	Institutes Subscription	39265621.00	65357030.00				
			65639528.00				**65639528.00**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL COLLEGE, NPS TIER - 1 ACCOUNT
BALANCE SHEET AS ON 31ST MARCH, 2019

LIABILITIES	Rs. Ps.	Rs. Ps.	ASSETS	Rs. Ps.	Rs. Ps.
CURRENT LIABILITIES :			**CLOSING BALANCE :**		
Amount Payable to NSDL		4266042.00	Balance with main Fund		4266042.00
		4266042.00			**4266042.00**

PLACE: SURATHKAL
DATE : 24-08-2020

(RAVINDRANATH K.)
REGISTRAR
N.I.T.K.,SURATHKAL

(PROF. K. UMAMAHESHWAR RAO)
DIRECTOR
N.I.T.K.,SURATHKAL

NOTES



NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL

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