

NITK to develop earth-free rare electric vehicle motors

TIMES NEWS NETWORK

Mangaluru: The Centre for System Design (CSD) of NITK, Surathkal, has received funding from Anusandhan National Research Foundation (ANRF), Govt of India, under Mission for Advancement in High-Impact Areas (MAHA)-Electric Vehicle (EV) Mission.

The project aims to develop advanced indigenous rare earth-free magnet-electric traction motors (switched reluctance motors and synchronous reluctance motors) to accelerate India's transition to sustainable mobility.

The CSD will receive funding of Rs 10.3 crore as the project cost. The title of the project is 'Rare Earth Magnet Free Axial Flux Synchronous, Radial Flux Switched Reluctance Motor and their Controllers for EV Applications', according to

NITK has been selected as one of the seven E-Nodes. Of the seven, two will work on tropicalised EV batteries and cell technologies, three will lead efforts in power electronics and drives, and two will focus on EV charging infrastructure

information available on the institution's website.

ANRF has identified EV Mobility as the first priority area of focus under the MAHA programme. Under the project, NITK will lead the project, and will be partnered by three leading institutions — IIT-Madras, IIT-Hyderabad, and Centre for Development of Advanced Computing, Thiruvananthapuram.

NITK has been selected as one of the seven Electric Mobility Nodes (E-Nodes) under the programme. Out of seven, two E-Nodes will work on tropicalised EV batteries and cell technologies (TV-I), three will lead efforts in power electronics and drives (TV-II), and two will focus on EV charging infrastructure (TV-III).

Dr KV Gangadharan, professor, dept of mechanical engineering, NITK, will be the lead principal investigator. B Venkatesa Perumal, professor, dept of electrical and electronics engineering, NITK, and Jeyaraj P, professor, dept of mechanical engineering, NITK, will be principal investigators. Sandesh Bhaktha B, assistant professor, dept of aeronautical and automobile engineering, Manipal Institute of Technology, MAHE, Manipal, will be co-principal investigator.