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(54) Title of the invention : PRECISION TEMPERATURE-CONTROLLED MIXER WITH INTERCHANGEABLE MIXING BLADES AND A CIRCUMFERENTIAL HEATING SYSTEM

<p>(51) International classification :H01L0021670000, F02K0001380000, F01N0003200000, B29B0007740000, B28B0019000000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)National Institute of Technology Karnataka Address of Applicant :Srinivasnagar PO, Surathkal, Mangaluru - 575025, Karnataka, India Mangalore -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Raviraj H. Mulangi Address of Applicant :Quarters Number: AP-31, NITK Campus, NITK Surathkal,Mangaluru-575 025,Karnataka,India Mangalore -----</p> <p>2)A U Ravi Shankar Address of Applicant :I-205 Aparna Sarovar Zenith, Nallagandla, Serilingampally, Hyderabad-500046,Telangana,India Serilingampally, Hyderabad -----</p> <p>3)Yatish R G Address of Applicant :#203, Kalyani Beach Pearl Apartment, Behind Old Marigudi Temple. Marigudi Beach Road,Doddakopla, Surathkal,Mangaluru-575014,Karnataka,India Mangalore -----</p>
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(57) Abstract :

A Mixer for producing bio-binders comprising a stand as a framework to hold and support elements of the mixer, a thermocouple integrated into the stand for measuring the temperature in the mixing area, a shaftcoupled to a DC motor, the interchangeable blades placed in the mixing area for mixing, characterized by,a circumferential heaterhaving a cylindrical tube-like structure providing uniform heat along the height of the mixing area formed within.

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