National Institute of Technology Rourkela

Registration Seminar

Seminar Title : FABRICATION, CHARACTERIZATION AND PERFORMANCE EVALUATION OF EPOXY REINFORCED

WITH METALLIC AND NON-METALLIC FIBERS

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Venue : ME 001 : Mechanical Department Seminar Room

Date and Time : 05 Feb 2025 (3.00 PM)

Abstract : While reinforcement of natural and synthetic fibers in polymers has been very common, inclusion of metallic wire mesh

along with these fibers has secondary reinforcement in composite making is rare. In view of this, the present research addresses to the issues related to fabrication and characterization of epoxy-based hybrid composite reinforced with multiple layers of flax fiber along with SS-304 steel wire mesh. Similar sets of composites are also considered replacing flax fibers by glass fibers. Physical, mechanical and micro-structural properties are evaluated under laboratory conditions. Sliding wear characteristics are studied. Further, it is proposed to evaluate drilling characteristics of these

composites under different test conditions.

Keywords: Hybrid Composites, Metallic Fiber, Wear Performance, Drilling