National Institute of Technology Rourkela

Registration Seminar

Seminar Title	: Synthesis and Characterizations of Ceramic-polymer Composites for Biomedical Applications
Speaker	: Susmita Garnayak (Rollno : 522ph1011)
Supervisor	: Prof. Pawan Kumar
Venue	: Room No. MC 126, Dept. of Physics & Astronomy
Date and Time	: 01 Jan 2025 (5:10 PM)
Abstract	: Ferroelectric materials have attracted attention as emerging and highly significant candidates for medicine and healthcare related applications. Piezoelectric transducers have discernible advantages in contrast with other biosensors due to their low cost, quick response, and high sensitivity, making them capable of detecting subtle changes in pressure or mechanical stimuli. This sensitivity is crucial for accurately capturing the dynamic nature of body pulses. These sensors can be self-powered as the mechanical pressure applied to the sensor generates electrical energy. This feature eliminates the need for external power sources, making them convenient for wearable and remote monitoring applications. They are also non-invasive in nature, which makes them fit for human use. In this work, we propose to come up with the potential ferroelectric systems for wide range of applications, particularly for biosensors.