## National Institute of Technology Rourkela

## Departmental Seminar

Seminar Title : Synthesis of Functional Materials by Economical and Novel Processing Techniques

Speaker : Prof Pawan Kumar
Supervisor : Prof Bharat Kumar
Venue : Committe Room
Date and Time : 21 Jun 2024 (3:45 PM)

Abstract : Synthesis of functional materials by novel and economical synthesis techniques is a crucial area of research in materials

science and engineering. It involves the development of new methods to produce materials with specific properties and functions in a cost-effective manner. The goal is to create materials that can be used in various high-performance applications, including electronics, energy storage, catalysis, and biomedical devices, among others. Economical processing techniques focus on reducing the cost of materials synthesis through the use of abundant and inexpensive raw materials, energy-efficient processes, and scalable manufacturing methods. These techniques often involve optimizing reaction conditions, minimizing waste, and utilizing green chemistry principles to create sustainable production processes. In the present talk, the speaker will talk about high energy ball milling and microwave assisted solid state synthesis

technique of functional materials.