National Institute of Technology Rourkela

Departmental Seminar

Seminar Title : Conference Return Seminar: Energy-Efficient Buildings: Phase Change Materials Approach

Speaker : Dr. M. Gattu
Supervisor : Dr. M. Gattu
Venue : CE Seminar Hall
Date and Time : 16 Dec 2024 (1500 hrs)

Abstract : The alarming rise in temperatures in recent years has increased the energy required to maintain the thermal comfort of

building occupants. Phase change materials (PCMs) can store thermal energy and reduce this energy consumption. This paper summarizes the current developments in using PCMs in building construction. We discuss the working principle, the classification of PCMs, technologies to use PCMs at a material level in construction, the current problems involving PCM usage and their possible remedies, applications of PCMs at the structural level, and the future scope of research.