

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI
Pilani Campus, Rajasthan - 333 031
DEPARTMENT OF CHEMICAL ENGINEERING

Seminar Notice

Date: 11/02/2025 (Tuesday)
Time: 4.00 PM-5.00 PM

Venue: [Microsoft Teams](#)
Meeting ID: 419 243 407 094
Passcode: nJ9a5Ur6

Speaker:

Ms. Ria Majumdar

Application Engineer

DHIO Research & Engineering Pvt Ltd

Title: JOCTA: Multiscale Material Modelling software- For Polymer and Softmaterial Research

Abstract:

Ms. Ria Majumdar from DHIO Research & Engineering private limited, a collaborative Engineering R & D located in Bengaluru, will deliver a talk on "JOCTA: Multiscale Material Modelling software- For Polymer and Softmaterial Research". J-OCTA is the software that supports understanding of mechanisms and estimation of material properties from the atomic scale to the micrometer scale in the development of a wide variety of materials, such as Polymers, Rubbers, Plastics, Thin films, Paints, Coatings, Ink, Electrolytes, Fuel cells, Adhesives etc.

It can be used as a knowledge discovery tool to understand complicated properties and phenomena that could not be fully grasped through experimental results alone.

Capabilities includes :

- Molecular dynamics simulation
- Interface, phase separation simulation
- Rheology simulation
- Multi-phase material simulation
- Quantitative Structure-Property Relationships
- Zooming function, reverse mapping function
- Dissipative Particle Dynamics
- First Principal simulation
- Function for estimating χ parameters from phase diagrams and many more.
- Also added new methods of analysis which can predict the most accurate results than other methods.

- Interfaces with other software, the QSPR function for the simplified calculation of polymer properties, and inter-scaling coupling functions - including zooming and reverse mapping - are available.

Integrated Simulation Software for Soft Materials/Polymers from NANO – MICRO – MESO
– MACRO Scale Simulations

All interested persons are cordially invited to attend.

Prof. Banasri Roy,
HoD, Chemical Engineering

Prof. Sarbani Ghosh,
Seminar Coordinator