

Online Workshop on Modeling & Simulation Tools

October 20-24, 2020



Organised by

Materials Research Centre
Malaviya National Institute of Technology Jaipur



DHIO Research & Engineering Pvt Ltd

Patron

Prof. Udaykumar R. Yaragatti
Director
Malaviya National Institute of Technology Jaipur

Convener

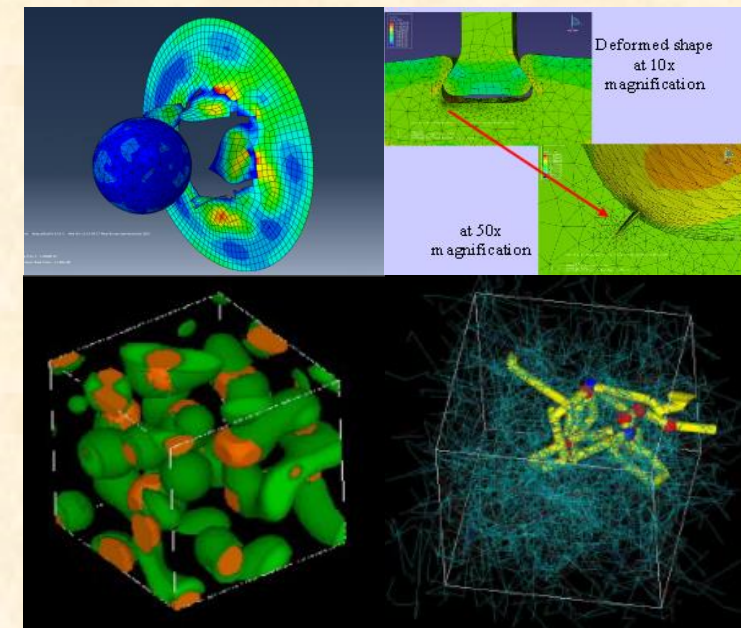
Dr. Kamlendra Awasthi
Head
Materials Research Centre, MNIT Jaipur
Prof. Kanupriya Sachdev
Professor, Materials Research Centre
Prof. Ragini Gupta
Professor, Materials Research Centre

Coordinators

Dr. Bhagwati Sharma
Assistant Professor, Materials Research Centre
Dr. Nisha Verma
Assistant Professor, Materials Research Centre
Dr. Kamakshi
Assistant Professor, Materials Research Centre

Organizing Committee

Dr. Himmat Singh Kushwaha
Dr. Bhagwati Sharma
Dr. Nisha Verma
Dr. Kamakshi
Dr. Kamlendra Awasthi
Mr. Hitesh Kumar Sharma



Registration

This workshop is organized to educate and train UG/PG/PhD/ students on simulation tools to model complex engineering problems. All the UG/PG/PhD students are eligible to apply. No registration fees for students and faculty members of MNIT Jaipur. For registration, fill the registration form using the link provided before **18th Oct 2020**. The selection is on first come first serve basis depending upon the availability of the seats.

Link: <https://forms.gle/sCHkughYH3GdpFtB8>

About the Course

In the present scenario, modeling and simulation is finding strong place in complementing theory and experiment. Tools available for modeling and simulation are showing promises not only in fundamental science research but giving paths to find answers to real world problems. Power of these simulators lies in predicting behavior and properties of system of interest, for analysis and quantification, performance prediction and design. Software tools available span a range on microstructure length scale, starting from atomic scale to macroscale, providing you option to choose relevant scale of your interest.

This course will provide you the relevant theoretical background and hands on computer training for the below mentioned simulation tools.

1. ABAQUS- Finite element Program which helps to model highly nonlinear system.
2. J-OCTA- Integrated Platform for Material Modelling from Sub-Atomic Modelling to MACRO scale.
3. FRANC3D- This program is designed to simulate 3D crack growth in engineering structures.

All Lectures and hands on training will be scheduled in the afternoon sessions, where lectures will be delivered by industry expert from DHIO Research & Engineering Pvt Ltd

About MNIT Jaipur

Malaviya National Institute of Technology Jaipur is one of the premier NITs, designated with the status of “Institute of National Importance” by Ministry of Education. The institute was established in 1963, and its campus spreads over 325 acres of lush green area in the central location of Jaipur city. The institute offers undergraduate and postgraduate courses (B. Tech., M. Tech. /MBA/ M.Sc. & Ph.D.) to about 4500 students, in leading fields of engineering, technology, architecture, management & sciences. Through the internationally renowned faculty, laboratories with state of art equipment's and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching. MNIT Jaipur secured 35th position in NIRF ranking 2020.

Materials Research Centre

Materials Research Centre has been created with an objective of providing a central facility of latest and advanced analytical instruments for research in the application areas of physical, environmental, chemical, allied and interdisciplinary sciences and Technology. Centre provides access to a wide range of state-of-the-art equipment necessary for materials characterization and synthesis, such as Nuclear Magnetic Resonance, Transmission Electron Microscope, FE- Scanning Electron Microscope, Atomic Force Microscope, X-Ray Diffractometer, Mass Spectrometer, etc. Various simulation tools are also available to be used, i.e. Comsol, Materials Studio, **ABAQUS**, **J-OCTA**, **FRANC3D**. The Centre also offers Ph.D. programme and an interdisciplinary Masters Programme in Materials Science and Engineering.

How to Apply

- Registration is open to faculty members, PDF, RA, Ph.D., PG and UG students. You can submit your application through following link:
<https://forms.gle/sCHkughYH3GdpFtB8>
- Limited seats are available.
- The participants will be awarded with an e-certificate based on successful completion of the course.
- To make the participation serious, the link for the quiz (e-assessment) will be shared during or after the lecture and you have to submit it within 15 minutes after the lecture. This quiz will be MCQ based.
- Please note that e-Certificate will be issued to those who will attend all planned e-sessions and submit all e-assessments.

Contact Persons

Dr. Bhagwati Sharma
Assistant Professor
Materials Research Centre
Malaviya National Institute of Technology, Jaipur
Email: bhagwati.mrc@mnit.ac.in
Mobile No: 9893082476

Dr. Nisha Verma
Assistant Professor
Materials Research Centre
Malaviya National Institute of Technology, Jaipur
Email: nisha.mrc@mnit.ac.in
Mobile No: 9549650182