Online one week short term course

on

Computational Physics

from

March 01-05, 2021

Organized by

Department of Physics
Motilal Nehru National Institute of Technology
Allahabad
Prayagraj, Uttar Pradesh, India

The Institute

Motilal Nehru National Institute of Technology Allahabad is a premier national institute committed to quality and excellence in academic pursuits. The institute established in 1961 as a regional Engineering Colleges of India as a joint enterprise of Government of India and Government of Uttar Pradesh. The institute has been granted the status of institution of national importance w.e.f. 15.08.2007

The Institute offers various undergraduate and postgraduate programs namely B.Tech., M.Tech., MCA, MBA, M.Sc., M.S.W and Ph.D. It has been recognized by GOI as one of the Quality Improvement Program (QIP) centre for Ph.D. programs.

The Department

The department of physics offers physics courses in B.Tech. and Ph.D. programs. Besides, it is also actively working in various research fronts of theoretical physics, such as nonlinear science, classical and quantum chaos etc., and experimental physics, such as gas sensors, magnetism, nano materials, thin films etc.

About the Course

In today's era, role of computational power can not be ignored. Recently introduced national education policy by the government of India also put a lot of emphasize on computational skills. The course is designed keeping in mind the importance and requirement of computational programming in physics. The course is primarily aimed for P.G. students and Ph.D. scholars. The UG students and interested faculty members can also attend the course. The objective is to provide ample programming skills so that the students can explore computational aspects of their research. The course also uses various standard physics experiment to model them in programming.

Topics to be covered

Fortran programming and its application in several linear and non-linear physical systems. Random numbers and Monte-Carlo simulations. Introduction to Density Functional Theory (DFT) and its Applications in Physics, Chemistry, Materials Science and Biology.

Organizing Committee

Patron

Prof. Rajeev Tripathi
Director, MNNIT Allahabad

Chairman

Dr. Naresh Kumar
Head, Department of Physics

Course Coordinators

- Dr. Animesh Kumar Ojha
  Department of Physics, MNNIT Allahabad.

- Dr. Ravi Prakash
  Department of Physics, MNNIT Allahabad.

Resource Persons:

- ❑ Dr. Animesh Kumar Ojha
  Department of Physics, MNNIT Allahabad

- ❑ Dr. Ravi Prakash
  Department of Physics, MNNIT Allahabad

- ❑ Dr. Ashwani Kumar Tripathi
  Ulsan National Institute of Science and Technology, South Korea

Registration

The course will be conducted in online mode. The registration is open from February 22, 2021 to February 28, 2021. There is no registration fee for the course. Submit the online registration form given at https://forms.gle/KQfH3fG8J55aAjsZ9 Same link can be accessed by scanning following QR code to open the google form.

E-certificates will be provided to all participants.

Schedule

Date	Time	Topics	Speaker
March 1, 2021	11:00 AM 4:00 PM	Fortran Programming Practice Session	Dr. Ravi Prakash
March 2, 2021	11:00 AM 4:00 PM	Fortran Programming Practice Session	Dr. Ravi Prakash
March 3, 2021	11:00 AM 4:00 PM	Random Numbers and Monte-Carlo Simulations Practice Session	Dr. Ravi Prakash
March 4, 2021	11:00 AM	Density Functional Theory	Dr. Animesh Kumar Ojha
March 5, 2021	11:00 AM	Density Functional Theory	Dr. Ashwani Kumar Tripathi

Contact Dr. Ravi Prakash (coordinator) at email: ravi.prakash@mnnit.ac.in or phone: +91-9013695997 for any assistance.