

# INTERNATIONAL CONFERENCE

ON

## COMPUTATIONAL MATHEMATICS IN NANOELECTRONICS AND ASTROPHYSICS

**(CMNA 2018)**

**November 1-3, 2018**

Conference URL: <http://cmna.iiti.ac.in/>

Email Id: [cmna2018@iiti.ac.in](mailto:cmna2018@iiti.ac.in)

### Announcement

About IIT Indore

IIT Indore located at Simrol, Khandwa Road, Madhya Pradesh, is one of the eight new Indian Institutes of Technology (IIT) established by the Ministry of Human Resource Development (MHRD), Government of India in 2008-09. Recently IIT Indore is ranked 15th amongst all engineering universities and institutions in India and a very impressive 5th in teaching and resource category by MHRD as per NIRF 2017.

IIT Indore, established in 2009 by the Government of India, is a unique educational institution that focuses on interdisciplinary research and teaching. The institute is growing rapidly as the only center for advanced learning and knowledge-dissemination in the pure and applied sciences in Central India. The interdisciplinary approach of the institute is well reflected in its departmental setup comprising basic sciences, a school of engineering and a school of social sciences. The larger commitment of the institute to socio-economic development is evident in its multi-dimensional approach to social problems and is engraved in its motto ('knowledge for the well being of all'), which makes this institution one of its kind and it stands out even within the distinguished IIT family.

#### Organizing Chairs:

Dr. Abhirup Datta, IIT Indore  
Dr. Swadesh Kumar Sahoo, IIT Indore  
Dr. Shaibal Mukherjee, IIT Indore

#### Program Chairs:

Dr. Bhargav Vaidya, IIT Indore  
Dr. Santanu Manna, IIT Indore  
Dr. Abhirup Datta, IIT Indore  
Dr. Swadesh Kumar Sahoo, IIT Indore  
Dr. Shaibal Mukherjee, IIT Indore

#### International Advisory Committee:

Prof. Manijeh Razeghi, Northwestern University, USA

Prof. Victor Atuchin, Rzhannov Institute of Semiconductor Physics, Russia

Dr. Kai Xiao, Oak Ridge National Laboratory, USA

Dr. Sharath Sriram, RMIT University, Australia

Prof. Ravi P. Agarwal, A&M University, USA

Dr. Santanu Bag, Air Force Research Laboratory, USA

Dr. Subhadeep Basu, Lam Research Corporation, USA

Dr. Ponnuthurai Nagarathnam Suganthan, Nanyang Technical University, Singapore

Dr. Myo Than Htay, Shinshu University, Japan

Prof. Subhabrata Chakraborti, University of Alabama, USA

#### National Advisory Committee:

Prof. V. Ramgopal Rao, IIT Delhi

Prof. Santanu Chaudhury, CEERI Pilani

Prof. Prasad A. Naik, RRCAT Indore  
Prof. S. M. Shivaprasad, JNCASR Bangalore  
Prof. Navakanta Bhat, IISc Bangalore  
Prof. S. B. Krupanidhi, IISc Bangalore  
Prof. Soumyendu Raha, IISc Bangalore  
Dr. S. K. Varshney, DST New Delhi  
Prof. Samit Kumar Ray, SNBNCBS Kolkata  
Prof. Karuna Kar Nanda, IISc Bangalore  
Prof. Amlan J. Pal, IACS Jadavpur  
Prof. M. S. Ramachandra Rao, IIT Madras  
Mr. Surinder Singh, Department of Space  
Dr. Swaroop Ganguly, IIT Bombay  
Dr. Ranjit Kumar Upadhyay, IIT Dhanbad  
Dr. Monica Katiyar, IIT Kanpur

#### Local Advisory Committee:

Dr. Kapil Ahuja, IIT Indore  
Dr. Aruna Tiwari, IIT Indore  
Dr. Mukesh Kumar, IIT Indore  
Dr. M. Tanveer, IIT Indore  
Dr. Santanu Manna, IIT Indore  
Prof. Vimal Bhatia, IIT Indore  
Dr. Parimal Kar, IIT Indore  
Dr. Munir Ahmad Nayak, IIT Indore  
Dr. Apurba Das, IIT Indore  
Dr. Manavendra Mahato, IIT Indore  
Dr. Sk. Safique Ahmad, IIT Indore  
Dr. Trapti Jain, IIT Indore  
Dr. Antony Vijesh, IIT Indore  
Dr. Mukul Gupta, UGC-CSR Indore  
Dr. D.M. Phase, UGC-CSR Indore  
Dr. Ram Janay Choudhary, UGC-CSR Indore  
Dr. Pankaj Misra, RRCAT Indore  
Dr. Shailendra Kumar, CSR-IUC Indore

About CMNA

The International Conference on Computational Mathematics in Nanoelectronics and Astrophysics (CMNA 2018) aims to bring together leading academicians, scientists, researchers, engineers, and industry partners all over the globe to exchange and share their experiences and research results on various aspects of computational mathematics in nanoelectronics, astrophysics and other related areas of space sciences and engineering. It also aims to stimulate interactions between researchers to present the recent progress and discuss the most advanced innovations, trends, and real-world challenges encountered and solutions embraced in the applications of computational mathematics in nanoelectronics and astrophysics, space sciences.

### Key Topics

- Pattern Recognition
- Wavelets
- Computational Complex Analysis
- Mathematical Models
- Finite Element Methods
- Computational Mechanics
- Operations Research
- Financial Mathematics
- Numerical Algorithms
- Computer Graphics
- Modeling of Physical Systems
- Astrophysical Fluid Dynamics
- Numerical Relativity
- Modelling of Space Instruments
- Turbulence in Astrophysics
- Big Data and Future Astronomical Telescopes
- Nanoelectronic Devices /
- Systems and Reliability
- Nanomagnetism and Spintronics
- Materials and Structures for Nanoelectronics
- Nanofabrication Technologies
- Micro- and Nano-ElectroMechanical System
- VLSI Design and IC Technology
- IC Fabrication and Testing
- Device, Circuit & Systems
- Photovoltaics
- Molecular Electronics
- Photonics and Plasmonics
- Sensors, Actuators, and Transducers
- Novel Algorithm and Machine Learning for Early Universe

### Important Dates

Last date for Abstract/Full-length Paper Submission:	July 31, 2018
Notification of acceptance:	August 10, 2018
Early Bird Registration ends:	August 15, 2018
Late Registration ends:	August 31, 2018

Organizing Committee

Contact for more details

Dr. Abhirup Datta  
Centre of Astronomy  
Phone: +91-732-4306948 (Office)  
Email: abhirup.datta@iiti.ac.in

Dr. Swadesh Kumar Sahoo  
Discipline of Mathematics  
Phone: +91-732-4306944 (Office)  
Email: swadesh@iiti.ac.in

Dr. Shaibal Mukherjee  
Electrical Engineering  
Phone: +91-732-4306551 (Office)  
Email: shaibal@iiti.ac.in

Organized by:- Indian Institute of Technology Indore, India



Indian Institute of Technology Indore, India