One-Week Summer School
on

Computing, Control, and Optimization [C_2O 2025]

Organized by
Department of Electrical Engineering, MNNITA

in association with

UP SECTION [INDIA]

June 9 – 13, 2025
[HYBRID MODE]

Organizing Committee

Patron	Prof. Rama Shanker Verma Director, MNNITA.
Course Coordinator(s)	Dr. Dipayan Guha, MNNITA. Dr. Abhilash Patel, IIT Kanpur. Prof. Richa Negi, MNNITA.
Convenor(s)	Dr. Saumendra Sarangi, MNNITA. Dr. Jagat Jyoti Rath, MNNITA. Dr. Shubh Lakshmi, MNNITA.

Department of Electrical Engineering, MNNITA, Prayagraj, UP 211004, India.

Contact Points

Dr. Abhilash Patel
EE Department, IIT Kanpur
apatel@iitk.ac.in

Dr. Dipayan Guha
EE Department, MNNITA
dipayan@mnnit.ac.in

+91-9674336951; +91-7060832284; +91-8847873342

About the Event

Computing, Control, and Optimization are entwined and indispensable domains that leverage computational algorithms to formulate control frameworks for optimal/resilient performances of dynamical systems. This Summer School on **"Computing, Control, and Optimization (C_2O 2025)"**, jointly organized with **IEEE Control System Society (CSS) Chapter, Uttar Pradesh Section**, will provide a platform for increasing the visibilities in the identified areas of control theory & allied domains through theoretical/practical studies. The theme of the Summer School is,

"Self-Organizing Intelligent Systems: Bridging Sustainable Computing, Control, and Optimization".

This One-Week Event is designed to acquire in-depth knowledge and practical insights into the following targeted key-areas of Systems & Control:

- Exploration of Computational algorithms and its application in Systems & Control for seamless operations.
- Familiarization with optimization tools for resilient operation of dynamical systems.
- Understanding of data-based analysis employing AI/ML tools.

Key Topics will be covered are:

- Dynamical Systems and Event-based Investigation.
- Optimization tools and its applications in Control Theory.
- Distributed Control and Multi-Agent Systems.
- Reinforcement Learning and applications.
- Cyber-security and Resilient Control.

Benefits of the Summer School are:

- Demonstration of computational techniques for design, optimization, and resilient control.
- Investigation of distributed control framework for dynamical systems using data-driven algorithms.
- Performing seamless integration of computation, control, and optimization for self-sustainable operation of dynamical systems.
- Participants will gain foundational knowledge and hands-on experience in emerging areas of Systems & Control Fields.

Eminent Speakers

Prof. Bidyadhar Subudhi, IIT Goa/NIT Warangal
Prof. Debasattam Pal, IIT Bombay
Prof. Sandip Ghosh, IIT (BHU) Varanasi
Prof. Ketan Rajawat, IIT Kanpur
Dr. Soumya Ranjan Sahoo, IIT Kanpur
Dr. Twinkle Tripathy, IIT Kanpur
Dr. Priyank Srivastava, IIT Delhi
Dr. Ashish Hota, IIT Kharagpur
Dr. Mayank Baranwal, IIT Bombay
Dr. Arijit Sen, IISER Bhopal

Registration details

Academicians/Research Scholars/Post Graduate/Senior Under Graduate Students from Academic/Research Institutes approved by the AICTE/UGC/MoE can register to the event.

Participants Category	Online Mode	Physical Mode
Senior UG/PG/Research scholars	INR 590	INR 1,770
Faculty/Academicians	INR 1,180	INR 2,950
Foreign Participants	USD 100	–

Registration Link https://forms.gle/7xEuSATaoyQsENvA8

About MNNIT Allahabad, Prayagraj

Motilal Nehru National Institute of Technology Allahabad, Prayagraj, is an Institute with total commitment to quality and excellence in academic pursuits. It was established as the 17th Regional Engineering Colleges in India in the year 1961 as a joint enterprise of Government of India and Government of Uttar Pradesh, and was an associated college of University of Allahabad. With over 45 years of experience and achievements in the field of technical education, on June 26, 2002 MNREC was transformed into NIT and Deemed University fully funded by Government of India. With the enactment of NIT Act-2007 (29 to 2007), the Institute has been granted the status of Institution of National Importance *w.e.f.* 15.08.2007. The Institute has been recognized by the Government of India as one of the centers for the Quality Improvement Programme for M.Tech and Ph.D. The Institute was selected as a lead institution in the Design theme under Indo-UK REC Project (1994-99). The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP) (2002-2007).

About IEEE Control System Society

Founded in 1954, the IEEE Control Systems Society (CSS) is dedicated to the advancement of the theory and practice of systems and control. Its focus is to promote scientific, technological, and educational advancements in the fields of automatic control, decision making, theory and applications. Application areas include, and not limited to, aerospace systems, automotive systems, communication networks, cyber-physical systems, manufacturing, micro/nano systems, power grids, process control, robotics, smart communities, etc.

About Department of Electrical Engineering

The graduate course in the Department of Electrical Engineering, MNNITA, was started in 1961. Subsequently, Post Graduate Programmes in Electrical Machine/Power System/Control System were introduced in the year 1970-71. The Department has well qualified and experienced faculty members in all the related fields of Electrical Engineering and well-equipped State-of-the-Art laboratories. There is a widespread interaction between the Electrical Engineering Department and various other departments like Electronics and Communication Engineering, and Computer Science and Engineering etc. in the field of teaching and research. Ph.D. started in the year 1971, and established a Ph.D. program under QIP in 2002.

Bank A/C Details

Account Name	**SNFCE MNNIT Allahabad**
Account Number	**10424975574**
IFSC Code	**SBIN0002580**
Bank and Branch	**SBI, MNNIT Allahabad**
Swift code	**SBININBB828**

UPI ID: 10424975574@sbi

GST No.: 09AAAJM1116B2ZR

Registration deadline: June 7, 2025

- The registration fee is **Non-refundable**.
- **Registration Fee includes 18% GST**.
- Depending on availability, accommodation for the Physical Mode Participants will be made in the Hostels, MNNITA. **Charges will be applied as per the Institute rules**.
- **10% wave-off of Registration Fees to the participants having active IEEE Membership**.