

SERB SPONSORED HIGH END WORKSHOP ON
Digital Transformation to Industry 5.0:
AI, Analytics, Blockchain & Robotics



(Under the Karyashala Scheme - A SERB Initiative)

25 - 31 July 2024

National Institute of Technology Silchar, Assam



About Karyashala: KARYASHALA is an effort to improve research productivity and skill development of promising PhD, PG and senior UG students from institutes, universities and colleges across the country through high-end workshops funded under the Accelerate Vigyan scheme of SERB, Govt. of India.

NIT Silchar: The National Institute of Technology (NIT) Silchar, Assam was established in 1967 as a regional engineering college. It attained the prestigious status of NIT in 2002. NIT Silchar offers undergraduate, post-graduate, and doctoral programs in engineering, science, humanities, and management, catering to nearly 5000 students. The institute's sprawling campus of around 625 acres is equipped with state-of-the-art infrastructure and surrounded by lush greenery.

Flight : Kumbhirgram - Silchar Airport (IXS), 25 km.
Train : Silchar (SCL), 10 km; Badarpur (BPB), 25 km.
Bus : ISBT Silchar, 10 km.

Dept. of E&IE: Established in 2008, the Department of Electronics & Instrumentation Engineering (E&IE) has BTech, MTech and PhD programs. State-of-the-art labs like Sensors & Transducers, Process Control & Automation, Robotics, Instrumentation, Electronics, Biomedical and Design & Fabrication equip students with practical skills. The department of E&IE prepares its graduates to be at the forefront of technological advancements with social commitments.

Introduction to Workshop: Industry 5.0 is based on "human-centered automation" which aims to empower and augment human capabilities rather than fully replacing with machines. By leveraging technologies such as AI, IoT, Robotics, augmented reality, block-chain, Industry 5.0 seeks to create work environments that are safer, more efficient, and conducive to human well-being. This enables personalized and customized production, flexible manufacturing systems, real-time data analysis, predictive maintenance, and improved customer experiences.

Workshop Topics (Theory & Hands-on):

- Robotics & Unmanned Vehicles
- Robotic Programming
- AI and Predictive Analytics
- Condition Monitoring and Predictive Maintenance
- System Identification & Digital Twin
- Industry 4.0 to Industry 5.0
- Quantum Computing

Chief Patron:

Prof. Dilip Kumar Baidya,
Director, NIT Silchar

Patron:

Prof. Nalin B. D. Choudhury,
Dean Research & Consultancy, NIT Silchar

Mentor:

Dr. Rajdeep Dasgupta,
HoD, Dept. of E&IE

Workshop Coordinators:

- Dr. Koena Mukherjee
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Resource Persons:

- Faculties from IITs, NITs, and other top academic institutes.
- Professionals from Industry.

Participation Criteria:

- Open to PhD, PG, and final year B.Tech. students.
- Affiliation - Any institute in India.
- Total 25 seats. Selection will be based on merit by workshop coordinators.

SERB Financial Support:

- Registration fees waived-off.
- Travelling allowance (3 AC).
- Free Lodging and Boarding.
- Completion certificate.

Registration:

- Use the below link for application.
- forms.gle/341vA5jarXvUnjnS8
- Plan journey only after confirmation email.