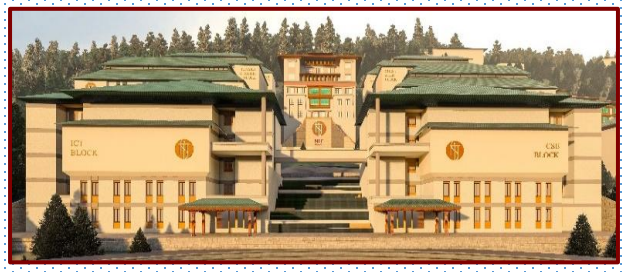
About the Institute, NIT Sikkim

The National Institute of Technology Sikkim is a public technical and research institute located in Ravangla. Established in 2010 by the Government of India, it is one of the 31 National Institutes of Technology and is recognized as an Institute of National Importance. The institute offers undergraduate, postgraduate, and doctoral programs in engineering, science, and humanities, including B.Tech, M.Tech, M.Sc., and Ph.D. degrees. Admission to the B.Tech program is based on JEE Main followed by JoSAA counseling, while M. Tech admissions are primarily through GATE. The institute currently operates from its campus in Ravangla and is developing a permanent campus at Khamdong in Sikkim. Known for its scenic Himalayan surroundings and growing research activities, NIT Sikkim is gradually strengthening its academic reputation, infrastructure, and placement opportunities in India's engineering education system.

About Sikkim

Sikkim, a small but picturesque state nestled in the northeastern part of India, is known for its breathtaking landscapes, rich biodiversity, and vibrant cultural heritage. Bordered by Bhutan, Tibet, and Nepal, it is home to the majestic Kanchenjunga, the third-highest mountain in the world. Sikkim boasts a unique blend of ethnic communities, including Lepchas, Bhutias, and Nepalese, each contributing to its diverse traditions and festivals. The state is also noted for its environmental consciousness, being the first fully organic state in India.



Program outcomes

- Gain comprehensive knowledge of AI-driven intelligent robotics and their engineering applications.
- Develop skills in modeling, simulation, and control of robotic systems.
- Understand the integration of mechanical and electrical components in smart automation systems.
- Enhance problem-solving abilities for real-world challenges using AI-based robotic solutions.
- Acquire exposure to recent research trends and emerging technologies in intelligent robotics.
- Strengthen interdisciplinary competencies for innovation in next-generation engineering systems.

Target Participants

- Faculty members, Research scholars, students, and staff from the institution

Key Focus Areas

- Machine learning, deep learning, and computer vision for intelligent decision-making.
- Modeling, kinematics, dynamics, and advanced control strategies.
- Sensors, actuators, embedded systems, and hardware interfacing.
- Smart manufacturing, Industry 4.0, and autonomous systems.

राष्ट्रीय प्रौद्योगिकी संस्थान सिक्किम
NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM
(An Institute of National Importance, Ministry of Education, Govt. of India)

One Week Online Workshop on

"Future Engineering Paradigms: Next-Gen Intelligent Robotics Powered by Artificial Intelligence."

11th May to 15th May 2026

Technically Co-Sponsored by

IEEE Robotics & Automation Society
Kolkata Section Chapter

Jointly Organized by

Electrical and Electronics Engineering
&
Mechanical Engineering Department

National Institute of Technology Sikkim
Ravangla, Barfung Block
South Sikkim- 737139 (India).

(An autonomous Institute under the aegis of the Ministry of Education, Govt. of India)
website: https://nitsikkim.ac.in/

Resource persons

Experts from IITs. NITs, Top Indian universities and from Industry.

Who can attend?

The students, research scholar faculty members, and staff

Objectives of the workshop:

- To provide a comprehensive understanding of AI techniques applied to intelligent robotic systems.
- To explore the design, modeling, and control of robotics in mechanical and electrical engineering contexts.
- To develop practical skills in integrating sensors, actuators, and embedded systems for automation.
- To analyze real-world applications of AI-driven robotics in industry and smart systems.
- To familiarize participants with emerging trends and research directions in next-generation robotics.

Background / Rationale

The rapid advancement of Artificial Intelligence and robotics is transforming modern engineering by enabling smarter, autonomous, and highly efficient systems. Integrating AI with mechanical and electrical engineering has become essential for developing intelligent automation, improving productivity, and addressing complex real-world challenges. This workshop is designed to provide participants with a foundational understanding and practical exposure to AI-driven robotics, aligning academic learning with current industry needs and future technological trends.

Patron

Prof. Mahesh Chandra Govil,
Director, NIT Sikkim

Convener (s)

Dr. Nimai Charan Patel
HOD, EEE
Dr. Jai Gopal Gupta
HOD, ME

Co-ordinator

Dr. Anjan Kumar Ray,
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Dr. Vivek Kumar
Assistant Professor, EEE
Dr. Debajit Saha,
Assistant Professor, ME
Dr. Bam Bahadur Sinha
Assistant Professor, CSE

Advisory committee

Prof. Amitava Chatterjee
Professor, Jadavpur University, Kolkata
Dr. Ranjan Basak
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Dr. Sourav Mallick,
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Associate Professor, IEMS, Kolkata
Dr. Biswajit Roy,
Assistant Professor, ME
Dr. Abhishek Rajan
Assistant Professor, EEE
Dr. Pradeep Kumar,
Assistant Professor, EEE

Registration Link:

The initial 100 participants will be selected to take part in this workshop

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There is no registration Fee for participation

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