

About NIT, Sikkim

The National Institute of Technology, Sikkim commenced its educational journey in August 2010. Campus is situated in nestled within the picturesque landscapes of Ravangla, in the South Sikkim Sub-Division. The Ravangla campus is enveloped by stunning natural beauty and serves as the institute's current home, where it is expected to remain until its permanent campus, situated in Khamdong, Sikkim, is established.

The institute operates with nine distinct departments, offering a comprehensive range of educational programs, including four-year Bachelor of Technology (B.Tech.) programs in various engineering disciplines, as well as two-year Master of Technology (M. Tech.), M.Sc., and Ph.D. programs. Admissions to the undergraduate programs are granted through the JEE (Main) examination, while entrance to the postgraduate courses, including the M. Tech. program, is determined by the performance in the Graduate Aptitude Test in Engineering (GATE).

Location

National Institute of Technology (NIT) Sikkim is located in the small town called Ravangla in the Southern Sikkim district of the Indian state of Sikkim. Ravangla is about 65 km from the state capital, Gangtok. The institute campus is located in a scenic location, with the beautiful hills of Sikkim in its surroundings. The nearest airport to NIT Sikkim is Bagdogra Airport, which is located approximately 135 km away. The nearest railway station is New Jalpaiguri Railway Station, which is located approximately 120 km away. The nearest bus stop is in the nearby town of Ravangla, which is located 3 km from the campus.

About the Mechanical Engineering Department

The Department of Mechanical Engineering, NIT Sikkim started its journey in 2014. Since its inception, the Department has produced globally competent Mechanical Engineers capable of contributing the society through innovation and working in multidisciplinary fields. The Department aims to provide the students with the perfect blend of intellectual and practical experiences that help them to serve our society and address a variety of needs of good human beings. The course curriculum has been designed compatible to the existing and emerging needs of the

industry. The autonomy of the Institute is a privilege to the department in terms of flexibility to modify and revise courses/syllabi at different time intervals to cater contemporary needs of the industry. The Department has established state-of-the-art facilities in various laboratories. Presently about six research scholars are doing research in the department for Ph.D.

Organizing Committee

Patron

Professor (Dr.) M. C. Govil

The Director, National Institute of Technology, Sikkim

Coordinators

Dr. Anil Lal S, Associate Professor

Dr. Ranjan Basak, Associate Professor

Dr. Jai Gopal Gupta, Assistant Professor

Advisors

Dr. Shambhunath Barman, Associate Professor

Dr. Debajit Saha, Assistant Professor

Dr. Biswajit Roy, Assistant Professor

Dr. Shitendu Some, Assistant Professor

Dr. Uttam Kumar Mohanty, Assistant Professor

Dr. Dipayan Das, Assistant Professor

Dr. Sudip Banerjee, Assistant Professor

Dr. Kirti Tewari, Assistant Professor

Dr. Bibhuti Bhusan Nayak, Assistant Professor

Technical Support

Mr. Suneel K. Kushawaha, Technical Assistant

Mr. Amit Maity, Technician

Mr. Manoj Kumar, Technician

Mr. Debayan Mandal, Research Scholar

Mr. Ved Prakash Mishra, Research Scholar

Mr. Mannu Yadav, Research Scholar

Ms. Moumita Roy, Research Scholar

Mr. Shadab Reza, Research Scholar

Mr. Debojit Roy, Research Scholar

One Week Advanced Entrepreneurship and Skill Development Programme (A-ESDP) on “Robotics for Domestic and Industrial Applications”

(8th to 12th March 2024)

Organized by



Department of Mechanical Engineering
National Institute of Technology Sikkim

Ravangla – 737 139 Sikkim

www.nitsikkim.ac.in

Sponsored by



सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय
MINISTRY OF
MICRO, SMALL & MEDIUM ENTERPRISES

Objectives of the A-ESDP

Robotics engineering is a field of engineering that deals with the design and creation of robots. It uses computers to manipulate and process robotic actions. Robotics engineers make use of knowledge from computer engineering, mechanical engineering, electrical engineering, control systems and information technologies. Robots can perform tasks that are difficult or impossible for humans to do and can be used in a variety of industries, including manufacturing, healthcare, and transportation. The objective of this training program is to provide knowledge and skill training in the robotics of household and industrial applications. It is designed as a blend of theory, demonstration and hands on sessions. The sessions cover an overview of the fundamental theoretical perspectives by eminent academicians and practical by experts from the industry. The topics include mechanical systems, mechanisms, manipulators, sensors, actuators, power sources, control systems, operating system, programming and hands on training using developer kits. The participants are expected to get a comprehensive knowledge about different elements of robotic systems, control boards, and programming along with skills in developing and establishing a few cases of indoor and outdoor robots.

Course Contents

- Overview of robotics
- Mathematics for robotics
- Mechanism and manipulators
- Design and analysis of mechanisms
- Sensors and signals
- Actuators, drives and power sources
- Controlling
- Machine learning
- Robot Operating System
- Programming
- Hands on sessions on robotic development kits
- 3D printing of components

Who can attend the A-ESDP?

The A-ESDP can be attended by:

1. The faculty of Engineering Institutions (approved by AICTE).
2. The Engineers form Industry and Scientists from R&D organisations.
3. M. Tech. and PhD research scholars.
4. Engineering graduates running own industry/desirous to become entrepreneurs.

For registration: Please fill the Google form on the provided link latest by 25-02-2024.

General Information

- No Registration fee will be charged from the participants. Registration kit and course material shall be provided to the participants.
- Shared accommodation and food for participants will be provided by NIT Sikkim.
- NIT Sikkim, Ravangla is situated at an altitude of 2100 meter the weather remains cold throughout the year. The participants are requested to carry the warm cloths along with them.
- TA will be reimbursed to the participants as per the shortest railway/road routes (2AC/3AC) or equivalent fair upon submission on original tickets. A travel grant, up to a maximum of Rs. 7000 or the actual, whichever is lower, will be reimbursed.
- Selected candidates will have to acknowledge participating in the A-ESDP through return email failing which the waitlisted candidates may be called for attending the A-ESDP.
- Last date of receiving of registration forms: 25.02.2023.
- Reporting date and time/venue at the Institute: 08.03.2024 at 9.00 a.m. in Department of Mechanical Engineering, NIT Sikkim.

Contact Us:

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For registration apply through the following link or

QR Code

<https://forms.gle/KQ9ZVXW8gwh7mUbNA>

