

One Week Workshop on Building Smart Systems using IoT

Financially Supported by

IBITF/Note/TSP/SanctionLetter/2024-25/0012 dated 09.01.2024

Funded by

IBITF, DST Govt. of India



March 16 - 20, 2026

Organised by



Department of Computer Science and Engineering
&
Department of Electrical and Electronics Engineering

National Institute of Technology Sikkim
Ravangla - 737139

About NIT Sikkim

NIT Sikkim is a public engineering and research institution near the city of Ravangla, Sikkim, India. It is one of the 31 NITs in India and has been declared as an Institute of National Importance by the Government of India. It is an autonomous institute and functioning under the aegis of Ministry of Education (Shiksha Mantrayala), Government of India. NIT Sikkim is one among the ten newly sanctioned National Institutes of Technology by the Government of India under the 11th Five-year Plan, 2009. It started functioning in August, 2010. Currently, it is being operated from a temporary campus at Barfung Block, Ravangla Sub-Division of Namchi district. It is likely to continue its activities at Ravangla Campus until its permanent campus comes up at Khamdong, Sikkim. NIT Sikkim offers 4-year Bachelor of Technology (B.Tech.) programme in various engineering fields, as well as 2-year Master of Technology (M.Tech.), Master of Science (M.Sc.) and Ph.D. Programmes.

About CSE Department

The CSE department was established in 2010 with the laying of the foundation of the Institute. The department aims to provide an outstanding research environment complemented by excellence in teaching to produce engineering professionals leading to a successful career in industry, academics, and entrepreneurial endeavors. The department offers research in the areas of Cloud Computing, Image Processing, Deep Learning, Internet of Things, Wireless Sensor Network, Parallel-Distributed and High-Performance Computing, and Cyber Security. The department offers B.Tech. in CSE and AI&ML with an intake of 40 and 30, and M.Tech. in AI&ML with an intake of 25, respectively. The department also awards PhD in several domains and recent trends of CSE.

About EEE Department

The Department of EEE is one of the principal and significant departments in NIT Sikkim and started functioning since inception of the Institute in 2010. The department completely focuses in maintaining education of the highest standards through quality teaching and research in multidisciplinary fields. The department offers 4-year B.Tech. program in Electrical and Electronics Engineering with an intake of 30, two year M. Tech. program in Electrical Engineering with specialization in Power and Energy Systems, Power Electronics and Drives with an intake of 25, and Ph.D. in various fields of Electrical Engineering.

Brief Description of the Workshop

This one-week workshop on Building Smart Systems using IoT is designed to provide participants with a comprehensive understanding of Internet of Things (IoT) technologies and their role in developing intelligent and connected systems. The workshop will integrate theoretical concepts with hands-on sessions on sensors, embedded platforms, communication protocols, cloud and edge computing, and security mechanisms. Real-world applications such as smart homes, self-driving vehicles, smart healthcare systems, smart cities, smart agriculture, and industrial automation will be discussed through case studies and practical demonstrations. The program will enable participants to acquire the necessary skills to design, implement, and evaluate IoT-based smart solutions addressing contemporary societal and industrial challenges.

Objectives of the Workshop

- To provide participants with a strong foundation in Internet of Things (IoT) concepts and smart system architectures for real-world applications such as smart homes, smart healthcare, smart cities, etc.
- To enable hands-on experience with sensors, embedded platforms, and communication protocols used in practical IoT deployments including home automation and intelligent transportation systems.
- To develop the ability to design and implement IoT-based smart applications for domains such as self-driving vehicles, remote patient monitoring, and urban infrastructure management.
- To create awareness about security, privacy, and scalability challenges in smart systems and IoT-enabled applications, particularly in healthcare, transportation, and city-scale deployments.
- To encourage participants to build prototype for smart systems addressing the real-world societal and industrial challenges using IoT technologies.

Resource Persons

Eminent experts form IITs, NITs, IIITs, central universities, industries, etc.

Outcomes of the Workshop

After the workshop, the participants will able to:

- Enhance understanding of IoT concepts and smart system architectures.
- Design and develop IoT-based smart applications for real-world scenarios.
- Adopt hands-on skills in integrating sensors, embedded platforms, and communication protocols.
- Implement cloud and edge solutions for data processing and monitoring.
- Achieve, improved competence in addressing security, privacy, and performance challenges in IoT systems.

Eligibility

- Diploma/UG/PG students and Research Scholars from various domain are encouraged to apply for this workshop.
- The program is also open for faculty members from academia and working professionals from industry.



Registration

- No registration fee is required.
- Seats are limited.
- Seats will be booked on **first come first serve basis**.
- No TA/DA & accomodation will be provided
- For registration click on below link OR Scan the following QR Code:

<https://forms.gle/PbSnbFncnL4sc35i7>



Venue

Department of Computer Science & Engineering
National Institute of Technology Sikkim, Ravangla-737139
Contact and Queries: Please send your queries directly to the
Dr. Sangram Ray (Coordinator).
email: sray.cse@nitsikkim.ac.in, Ph.: (+91) - 9635027654

Organizing Committee

Chief Patron

Prof. Mahesh Chandra Govil

Director, NIT Sikkim

Patron

Dr. Md. Sarfaraj Alam Ansari

HoD CSE, NIT Sikkim

Dr. Nimai Charan Patel

HoD EEE, NIT Sikkim

Coordinator

Dr. Sangram Ray

Associate Professor

Department of CSE, NIT Sikkim

Convener

Dr. Pradeep Kumar

Assistant Professor

Department of EEE, NIT Sikkim

Advisory Committee

Dr. Taraknath Kundu, Dean R&LC, NIT Sikkim

Dr. Ranjan Basak, DSW, NIT Sikkim

Dr. Achintesh N. Biswas, Dean Alumni LIIR, NIT Sikkim

Dr. Aurobinda Panda, Dean Academic, NIT Sikkim

Dr. Anjan Kr. Ray, DFW, NIT Sikkim

Dr. Sourav Mallick, Dean PELD, NIT Sikkim

Dr. Ravi Srivastava, Registrar, NIT Sikkim

Dr. Pratyay Kuila, CSE, NIT Sikkim

Dr. Pankaj Kumar Keserwani, CSE, NIT Sikkim

Dr. Molay Roy, EEE, NIT Sikkim

Dr. Krishna Kumar, CSE, NIT Sikkim

Dr. Bam Bahadur Sinha, CSE, NIT Sikkim

Dr. Abhishek Rajan, EEE, NIT Sikkim

Dr. Vivek Kumar, EEE, NIT Sikkim

Dr. Diksha Rangwani, CSE, NIT Sikkim