

About NITM

The National Institute of Technology (NIT) Meghalaya is one among the 31 NITs in India established in 2010 under the NIT Act 2007 (Amended 2012) of the Parliament of India as Institutes of National Importance with full funding support from the Ministry of Education, Government of India. The Institute is currently operating out of its temporary campus in Laitumkhrah, Shillong. It offers B. Tech, M. Tech, M.Sc. and PhD programmes. The Institute has been ranked in all editions of the National Institute Ranking Framework (NIRF) and was ranked 61 in the Engineering category, NIRF 2020.

About Department of Computer Science & Engineering

The Department of Computer Science & Engineering, NIT Meghalaya offers B. Tech, M. Tech and Ph.D. programmes in Computer Science and Engineering discipline. The U.G Programme in Computer Science and Engineering is perhaps the most popular Programme in NIT Meghalaya, with an intake of 30 students per year. The department has adequate facilities to support the teaching activities and has a well-qualified and experienced faculty team. The Computer Science and Engineering department makes all efforts in imparting high quality education to its highly motivated students. The Department is also actively involved in various Research works in all domains of the discipline.



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AICTE Sponsored Five Days Online Short Term Training Program (STTP) On

Internet-of-Things (IoT): Building Blocks, Enabling Technologies, and Applications

(08-03-2021 to 12-03-2021)

Organized by



Department of Computer Science & Engineering
National Institute of Technology
Meghalaya

Shillong-793003, Meghalaya, India

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About STTP

Internet of Things (IoT) is a concept that envisions all objects around us as part of the Internet. Coverage of IoT is wide and includes a variety of objects like smart phones, tablets, digital cameras, sensors, etc. Once all these devices are connected with each other, they enable more and more smart processes and services that support our basic needs, economies, environment, and health. Such an enormous number of devices connected to the Internet provide many services and produce huge amount of data and information of various types, which is known as Big Data. It also introduces complexity in analyzing and processing to extract useful information from them. IoT devices are generally characterized by real-world small things with limited storage and processing capacity. Naturally, this Big Data, generated through IoT devices, require enabling technologies like cloud computing, fog/edge computing with virtually unlimited capabilities in terms of storage, processing power, and also analytic methods to analyze these data and extract values from them. This STTP enables discussions that attempt to bridge IoT building blocks with the enabling technologies for diverse applications.

Topics to be discussed

- Introduction to IoT and its building blocks
- IoT: Concepts, Careers and Courses
- Context awareness in cross vertical IoT applications
- IoT in societal applications
- IoT and Wireless Body Area Networks
- IoT for defence applications
- IoT and Vehicular Ad-hoc Networks
- Smart cities and sustainable IoT applications
- Role of Edge/Fog computing in architecting IoT
- Web-of-Things
- Role of Machine Learning in IoT
- Research scopes challenges in IoT
- Security challenges in IoT

Resource Persons

Prof. S. Misra, Professor, IIT Kharagpur (*Chief Guest*)
Dr. G. Mahapatra, Scientist, DRDO
Dr. S. Abrar, Advisory Systems Engineer, IBM
Dr. S. Maity, Principal Engineer, Dell Technologies
Dr. R. Mukherjee, Assistant Professor, IIM Jammu
Dr. A. Srivastava, Associate Professor, IIT Indore
Dr. M. Khatua, Assistant Professor, IIT Guwahati
Dr. D. Das, Assistant Professor, IIT Jodhpur
Dr. S. Pal, Assistant Professor, IIT Ropar
Dr. K. K. Patnaik, Associate Professor, IIITM Gwalior
Dr. K. H. Reddy, Associate Professor, NIST Berhampur
Dr. D. S. Roy, Associate Professor, NIT Meghalaya
Dr. S. Moulik, Assistant Professor, NIT Meghalaya

Eligibility

The faculty members of the AICTE approved institutions, research scholars, and industry persons can apply. Selection will be done based on a First-Come-First Serve basis. An evaluation test will be conducted at the end of program and certificates will be issued only to those participants attending all sessions of STTP and who qualify the test with 60% marks.

Important Dates

Last date of Registration: 06/03/2021
Confirmation to the participants: 07/03/2021

Registration Details

- No Registration fees. Reg. Link: <https://forms.gle/Nuj5PYYhh3w34Jo5A>
- Time: 10.00 AM – 4.00 PM (3 Sessions)
- Confirmation of the candidates will be intimated through mail.
- The number of participants is restricted to 75.
- The participants will be selected on first-come first-served basis.
- Participants will receive the E-certificate after attending all sessions, submission of session wise feedback and attending online quiz in the final day of the program.

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Program Schedule

Dates	10:00 AM to 11:30 AM	11:30 AM to 12.00 PM	12.00 PM to 1.30 PM	1.30 PM to 2:30 PM	2:30 PM to 4.00 PM	4:15 PM to 4:45 PM
08.03.2021 (Monday)	Inauguration Session 1 Prof. Sudip Misra Professor, IIT Kharagpur Topic: Introduction to IoT and its building blocks	Tea	Session 2 Dr. Sujata Pal Assist. Prof., IIT Ropar Topic: IoT and Wireless Body Area Networks	Lunch	Session 3 Dr. Kiran Kumar Pattanaik Assoc. Prof., IIITM Gwalior Topic: Edge computing and its role in architecting the IoT	Tea, Q&A
09.03.2021 (Tuesday)	Session 4 Dr. Saif Abrar Advisory Systems Engineer, IBM Topic: IoT – Concepts, Careers and Courses	Tea	Session 5 Dr. Rohan Mukherjee Assist. Prof., IIM Jammu Topic: Machine Learning based applications in IoT	Lunch	Session 6 Dr. Abhishek Srivastava Assoc. Prof., IIT Indore Topic: Web of Things	Tea, Q&A
10.03.2021 (Wednesday)	Session 7 Dr. Manas Khatua Assist. Prof., IIT Guwahati Topic: Research Challenges in IoT	Tea	Session 8 Dr. Debasis Das Assist. Prof., IIT Jodhpur Topic: IoT and Vehicular Ad-Hoc Networks	Lunch	Session 9 Dr. Rohan Mukherjee Assist. Prof., IIM Jammu Topic: Possibilities of Deep Learning in IoT	Tea, Q&A
11.03.2021 (Thursday)	Session 10 Dr. Diptendu Sinha Roy Assoc. Prof., NIT Meghalaya Topic: Edge/Fog architecture for enabling real-time IoT applications	Tea	Session 11 Dr. Diptendu Sinha Roy Assoc. Prof., NIT Meghalaya Topic: Context Awareness and Cross Vertical IoT Applications	Lunch	Session 12 Dr. Gautam Mahapatra Scientist, DRDO Topic: IoT in Defence Applications	Tea, Q&A
12.03.2021 (Friday)	Session 13 Dr. K Hemant Reddy Assoc. Prof., NIST Berhampur Topic: Smart Cities and sustainable IoT applications	Tea	Session 14 Dr. Soumen Moulik Assist. Prof., NIT Meghalaya Topic: IoT in Societal Applications	Lunch	Session 15 Dr. Soumya Maity Principal Engineer, Dell Tech. Topic: Security Challenges in IoT	Tea, Q&A Test