



**Workshop on
Advances in Internet of Everything
(9th July to 14th July, 2024)
organized by
Indian Institute of Information Technology, Allahabad
Venue: Indian Institute of Information Technology, Allahabad**

Aim of the workshop

The primary aim of workshop is to provide participants with a comprehensive understanding and hands-on experience in the domain of Internet of Everything (IoE). We aim to equip attendees with the knowledge, skills, and insights necessary to navigate and contribute to the ongoing technological revolution in industries across the globe. This workshop is to motivate researchers to work in the area of internet of things, sensor network, industrial IoT, and smart city applications.

Objectives of the Programme

Bring academicians, researchers, industry practitioners and students to discuss the importance of Internet of things and Industrial IoT. Provide practical experience on technologies. At the end, a capstone will be given to the participants to encourage the utilization of the learnings.

About IIIT-Allahabad

The institution was founded in 1999, and in the following year received university status and the right toward its own degrees. In 2014 the IIIT Act was passed, under which IIITA and four other Institutes of Information Technology funded by the Ministry of Human Resource Development were classed as Institutes of National Importance.

Topics to be Covered

- Computing Paradigms in (Cloud, Fog, Edge, Mobile) for IoE
- Data Analytics for IoT
- Sensor Networks
- Approaches to data processing and management in Industry 5.0
- Embedded algorithms and systems for AI contexts
- Machine-to-machine communications/protocols
- Cyber-physical systems and interfaces for Industry 5.0
- Techniques and applications for wireless AI systems
- Applications of Federated learning
- Smart Manufacturing and Predictive Maintenance
- Edge AI for IoT
- 6 days Hands-on session-Device based-20+ hours

Registration Process

Interested can register on or before 5th July 2024
Click/Copy for details <https://IoE2024.iiita.ac.in/>

Resource Persons

Experts from reputed institutes + Industry experts

Registration fees

Participants:
For Students/Academia - **INR 4000/- (GST inclusive)**
For Industry/Others - **INR 6000/- (GST inclusive)**
Registration includes Kit, Lunch and Snacks during workshop days.
Visit workshop website for details

Organizers

- Data Analytics Lab, IIIT-Allahabad
- Wireless Sensor Lab, IIIT Allahabad

Organizing Committee

Patron

- Prof. Mukul S Sutaone, Director -IIITA

Coordinators

- Dr. Manish Kumar
- Dr. Ashutosh Mishra
- Dr. S. Venkatesan
- Dr Bibhas Ghosal

Correspondence

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Workshop Organizer-For Queries
Pramod Kumar Singh (8707685167)
Md. Shahnawaz-(9044205208)

Tentative Workshop Schedule

Schedule

Inauguration Session will start at 9:30 AM to 10:00 AM on 9/07/2024

Dates	10:00 AM to 11:00 PM	11:00 AM to 12:00 PM	12:00 PM to 12:15 PM	12:15 PM to 1:15 PM	1:15 PM to 3:00 PM	3:00 PM to 6:00 PM Hands-on/ Lab Session
09/07/2024	Lecture by Chief Guest	Lecture by Chief Guest	Tea Break	Session - 1 Iot Design methodology: A Hands-on Approach	Lunch Break	Session - 2 Familiarization with Raspberry Pi, Programming Raspberry Pi using Python (Sensors to Cloud)
10/07/2024	Session - 3 IoT Protocols- Zigbee, Wifi, BLE	Session - 4 Protocols for Iot Applications	Tea Break	Session - 5	Lunch Break	Session- 6 Working with CDAC IoT kit- Ubimote, BLE motes, Gateway
11/07/2024	Session - 7 Data Analytics for IoT	Session - 8 ML/ Reinforcement Learning for IoT	Tea Break	Session - 9 Data Streaming for IoT	Lunch Break	Session - 10 Using Hadoop Map Reduce, Apache Spark
12/07/2024	Session - 11 Edge AI for IoT	Session - 11 Continued	Tea Break	Session - 12	Lunch Break	Session - 13 Low Power IoT with NBIOT: Data Logger and Asset Tracker
13/07/2024	Session -14 Industrial Iot with PLC and 4G	Session -14 Continued	Tea Break	Session - 15 Product development Lifecycle	Lunch Break	Session - 16 IoT Security Hands-On
14/07/2024	Session - 17 IoT Security Hands-On	Session - 17 Continued	Tea Break	Session - 18 IoT Security Hands-On	Feedback & Valedictory	Free For City Tour/ Self Funded