



5 - Day Faculty Development Program (FDP) - Schedule "Internet of Things (IoT) in ESDM Sector"

Day-1

Date / Day	Time	Session Details
03/02/25 - Monday	9:30 to 11:00	Inaugural Session
Tea Break - 11 to 11:30		
03/02/25 - Monday	11:30 to 1:00	Session-1
Lunch Break - 1:00 to 1:45		
03/02/25 - Monday	1:45 to 3:15	Session-2
Tea Break - 3:15 to 3:30		
03/02/25 - Monday	3:30 to 5:00	Session-3

Day-2

Day / Date	Time	Session Details
04/02/25 - Tuesday	9:30 to 11:00	Session-4
Tea Break - 11 to 11:15		
04/02/25 - Tuesday	11:15 to 12:45	Session-5
Lunch Break - 12:45 to 1:45		
04/02/25 - Tuesday	1:45 to 3:15	Session-6
Tea Break - 3:15 to 3:30		
04/02/25 - Tuesday	3:30 to 5:00	Session-7

Day-3

Day / Date	Time	Session Details
05/02/25 - Wednesday	9:30 to 11:00	Session-8
Tea Break - 11 to 11:15		
05/02/25 - Wednesday	11:30 to 1:00	Session-9
Lunch Break - 12:45 to 1:45		
05/02/25 - Wednesday	1:45 to 3:15	Session-10
Tea Break - 3:15 to 3:30		
05/02/25 - Wednesday	3:30 to 5:00	Session-11

Day-4

Day / Date	Time	Session Details
06/02/25 - Thursday	9:30 to 11:00	Session-12
Tea Break - 11 to 11:15		
06/02/25 - Thursday	11:30 to 1:00	Session-13
Lunch Break - 12:45 to 1:45		
06/02/25 - Thursday	1:45 to 3:15	Session-14
Tea Break - 3:15 to 3:30		
06/02/25 - Thursday	3:30 to 5:00	Session-15

Day-5

Day / Date	Time	Session Details
07/02/25 - Friday	9:30 to 11:00	Session-16
Tea Break - 11 to 11:15		
07/02/25 - Friday	11:30 to 1:00	Session-17
Lunch Break - 12:45 to 1:45		
07/02/25 - Friday	1:45 to 3:15	Session-18
Tea Break - 3:15 to 3:30		
07/02/25 - Friday	3:30 to 5:00	Validatory Session

Name And Address Of The Resource Persons / Trainers	1. Mr. R Jagadeswaran, Senior Technical Engineer, Enthu Technology Solutions India Pvt Ltd, Tamilnadu. 2. Mr. Naveen Mugesh H, Technical Engineer, Enthu Technology Solutions India Pvt Ltd, Tamilnadu.
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The FDP program aims to enhance knowledge and skills in IoT applications specifically tailored for the ESDM sector. The following Topics are covered under the FDP.

Day-1

Fundamentals of IoT in ESDM

1. Introduction to IoT: Architecture, Components, and Communication Protocols
2. Role of IoT in the Electronics System Design & Manufacturing (ESDM) Sector
3. Edge Computing for IoT in Smart Manufacturing
4. Integration of AI and IoT in ESDM

Day-2

IoT Hardware & Embedded Systems in ESDM

1. Design and Development of IoT-Enabled Embedded Systems
2. Low-Power IoT Devices for Smart Electronics Manufacturing
3. Sensor Technologies in IoT for ESDM Applications
4. IoT Device Security and Firmware Development

Day-3

IoT Networks and Communication in ESDM

1. Industrial IoT (IIoT) and 5G Applications in Manufacturing
2. Wireless Communication Protocols for IoT in ESDM (LPWAN, Zigbee, LoRa, NB-IoT)
3. Real-Time Data Acquisition and Processing in IoT-based ESDM

Day-4

Smart Manufacturing & Automation using IoT

1. IoT for Industry 4.0: Smart Factories and Automation
2. Digital Twin Technology in ESDM using IoT
3. Predictive Maintenance using IoT and Machine Learning
4. Cyber-Physical Systems (CPS) in IoT-driven ESDM

Day-5

Security & Challenges in IoT for ESDM

1. Cybersecurity Challenges in IoT for Electronics Manufacturing
2. Blockchain for Secure IoT Data in ESDM
3. Data Privacy and Compliance in IoT-enabled Manufacturing

Applications & Future Trends in IoT for ESDM

1. IoT-driven Supply Chain Optimization in ESDM
2. IoT and Robotics for Electronics Production Line Automation
3. Sustainable and Green IoT Technologies in ESDM
4. Future Trends in IoT for Smart Electronics Manufacturing