



**Five Days ATAL Workshop on IoT and Cyber Security**  
**19<sup>th</sup> - 23<sup>rd</sup> August 2019 (E-Class Room, CET)**  
**Technical Program**



**Day 1: 19<sup>th</sup> Aug'19 (Monday)**

	<b>Title of The Talk</b>
09:30 - 11:00	Registration & Inauguration
11:00 - 11:15	High Tea
11:15 - 12:45	<b>Session 1: Dr. Manas Khatua, Department of CSE, IIT Guwahati</b> <b>Title: Overview of IoT</b>
02:00 - 03:30	<b>Session 2: Prof H B Nemade, Department of EEE, IIT Guwahati</b> <b>Title: Sensor's Basics</b>
03:30 - 03:45	Tea
03:45 - 05:15	<b>Session 3: Prof. Ratnajit Bhattacharjee, Department of EEE, IIT Guwahati</b> <b>Title: Wireless Communication Technologies in IoT -1</b>

**Day 2: 20<sup>th</sup> Aug'19 (Tuesday)**

09:30 - 11:00	<b>Session 4: Dr Moumita Patra, Department of CSE, IIT Guwahati</b> <b>Title: Envisioning the Future with Vehicular Networks and Cloud Computing</b>
11:00 - 11:15	High Tea
11:15 - 12:45	<b>Session 5: Dr. Rishikesh Dilip Kulkarni, Department of EEE, IIT Guwahati</b> <b>Title: Smart Sensors and Actuators -- the "Things" in IoT</b>
02:00 - 03:30	<b>Session 6: Prof. Ratnajit Bhattacharjee, Department of EEE, IIT Guwahati</b> <b>Title: Wireless Communication Technologies in IoT -2</b>
03:30 - 03:45	Tea
03:45 - 05:15	<b>Session 7: Dr. Ferdous A. Barbhuiya, Department of EEE, IIT Guwahati</b> <b>Title: Security in IoT</b>

**Day 3: 21<sup>st</sup> Aug'19 (Wednesday)**

09:30 - 11:00	<b>Session 8: Dr. Ferdous A. Barbhuiya, Department of EEE, IIT Guwahati</b> <b>Title: IoT Protocols: RPL, CoAP, MQTT -1</b>
11:00 - 11:15	High Tea
11:15 - 12:45	<b>Session 9: Dr. Ferdous A. Barbhuiya, Department of EEE, IIT Guwahati</b> <b>Title: IoT Protocols: RPL, CoAP, MQTT -2</b>
02:00 - 03:30	<b>Session 10: Prof. Sukumar Nandi, Department of CSE, IIT Guwahati</b> <b>Title: Cyber Security</b>
03:30 - 03:45	Tea
03:45 - 05:15	<b>Session 11: Prof. Shivashankar B. Nair, Department of CSE, IIT Guwahati</b>

	<b>Title:</b> Towards Bio-inspired agent based IoT/CPS
<b>Day 4: 22<sup>nd</sup> Aug'19 (Thursday)</b>	
09:30 – 11:00	<b>Session 12: Prof. Shivashankar B. Nair, Department of CSE, IIT Guwahati</b> <b>Title:</b> Agent Based IoT/CPS: Programming Prerequisites (Lecture cum hands-on)
11:00 – 11:15	High Tea
11:15 – 12:45	<b>Session 13: Prof. Shivashankar B. Nair, Department of CSE, IIT Guwahati</b> <b>Title:</b> Agent Based IoT/CPS: Multi-agent Platform (Lecture cum hands-on)
02:00 – 03:30	<b>Session 14: Prof. Shivashankar B. Nair, Department of CSE, IIT Guwahati</b> <b>Title:</b> Agent Based IoT/CPS: Accessing embedded hardware (Hands-on)
03:30 – 03:45	Tea
03:45 – 05:15	<b>Session 15: Prof. Shivashankar B. Nair, Department of CSE, IIT Guwahati</b> <b>Title:</b> Agent Based IoT/CPS: Demos

**Day 4: 23<sup>rd</sup> Aug'19 (Friday)**

09:30 – 11:00	<b>Session 16: Prof. Sukumar Nandi, Department of CSE, IIT Guwahati</b> <b>Title:</b> IoT Access Technologies – 6LoWPAN, ZigBee, LoRaWAN -1
11:00 – 11:15	High Tea
11:15 – 12:45	<b>Session 17: Prof. Sukumar Nandi, Department of CSE, IIT Guwahati</b> <b>Title:</b> IoT Access Technologies – 6LoWPAN, ZigBee, LoRaWAN -2
02:00 – 03:30	<b>Session 18: Dr. Manas Khatua, Department of CSE, IIT Guwahati</b> <b>Title:</b> IoT application development using ESP8266 and Cloud Infrastructure and LoRaWAN 1 (Demo)
03:45 – 05:15	<b>Session 19: Dr. Manas Khatua, Department of CSE, IIT Guwahati</b> <b>Title:</b> IoT application development using ESP8266 and Cloud Infrastructure and LoRaWAN 2 (Hands-on)
05:15 – 05:45	Group discussion & Valedictory session
05:45	High Tea