

Iot & Robotics		
Topic	Subtopics	Duration
Introduction to IOT	M2M towards IOT-the global context IOTProducts by Indian Companies	05th October (07:10-08:10)
Hardware Layer -Arduino	Industrial Internet of Things Getting started with ArduinoUno R3 Switch Interfacing with Arduino	06th October (07:10-08:10) 07th October (07:10-08:10)
Hardware Layer –Sensor Interfacing	Introduction to basic sensors Sensor 1: Working & Interfacing of IR Proximity Sensor Sensor 2: DHT11 Interfacing, working principle	08th October (07:10-08:10) 09th October (07:10-08:10)
Introduction to NodeMCU& Device Data/ Control	Arduino–OpensourceHardware Platform Pin Configuration and functionalities Accessing UI in a local network	12th October (07:10-08:10)
Network Layer –Wireless Communication Protocols	IPv4 VsIPv6 Introduction to 6LowPAN IOTPhysical Layer Protocols -Bluetooth/ WiFi/ LoRAWAN/ NFC	14th October (07:10-08:10) 16th October (07:10-08:10)
Introduction to MQTT, Basic MQTT concepts, Working with online MQTT Brokers		18th October (07:10-08:10)
replace Raspberrypi with ESP8266		21th October (07:10-08:10) 24th October (07:10-08:10)
Using MQTT broker for: Controlling actuators connected to one NodeMCU based on data from another NodeMCU. Wireless sensor network using multiple NodeMCUs. Node to Node talk.		26th October (07:10-08:10) 29th October (07:10-08:10)
Webserver with ESP8266 websockets		30th October (07:10-08:10)

Introduction to anaconda prompt, MQTT from command prompt and anaconda prompt IOT & ROBOTICSwith CLI commands		01st November (06:00-07:00)
Introduction to LPWAN	Communication technology: Wired and wireless Internet of Things: Different wireless technologies Low Power Wide Area Network (LPWAN)	05th November (06:00-07:00)
Industrial IOT	Industrial Internet of Things Smart Factory Concept Automation to Digitalization	07th November (06:00-07:00)