

Tentative Schedule of Skill Development Program on IoT and Embedded System

Date	Day	10 to 11 AM	11 AM to 01 PM	3 PM to 4 PM	4 PM to 5 PM
July 1, 2024	Monday			Orientation Program:	Introduction to IoT and Embedded Systems (Lecture/Lab: Online)
July 2, 2024	Tuesday				Fundamentals of Physical Interfacing (Lecture/Lab: Online)
July 3, 2024	Wednesday				Communication protocols for interfacing different blocks, UART, I2C, SPI, CAN, RS232, RS422, RS485, MODBUS (Lecture/Lab: Online)
July 4, 2024	Thursday				Programming the Things (Lecture/Lab: Online)
July 5, 2024	Friday				Python basics, Programming SBC (Orange PI, Raspberry Pi) (Lecture/Lab: Online)
July 6, 2024	Saturday		Data acquisition and sensor integration. (Lecture/Lab: Online)		
July 7, 2024	Sunday	Holiday			
July 8, 2024	Monday				Graphical approach: Node-Red, NodeMCU (Lecture/Lab: Online)
July 9, 2024	Tuesday				Things Communication (Lecture/Lab: Online)
July 10, 2024	Wednesday	Holiday			
July 11, 2024	Thursday	Holiday			

July 12, 2024	Friday			IoT communication protocols (MQTT, CoAP, HTTP). (Online)
July 13, 2024	Saturday		Wireless communication standards (Wi-Fi, Bluetooth, LoRaWAN, Zigbee). (Lecture/Lab: Online)	
July 14, 2024	Sunday		IoT device management and security. (Lecture/Lab: Online)	
July 15, 2024	Monday			Online Quiz Connecting embedded systems to the Internet (Lecture/Lab: Online)
July 16, 2024	Tuesday			Cloud platforms for IoT (AWS IoT, Azure IoT). (Lecture/Lab: Online)
July 17, 2024	Wednesday			Designing IoT Architecture (Lecture/Lab: Online)
July 18, 2024	Thursday			Introduction to Event-Driven IoT (Lecture/Lab: Online)
July 19, 2024	Friday	Holiday		
July 20, 2024	Saturday	Key concepts: events, publishers, subscribers (Lab: Offline)		Use cases of event-driven IoT. (Lab: Offline)
July 21, 2024	Sunday	IoT device integration. (Lab: Offline)		Designing server Scalability of servers (Lab: Offline)
July 22, 2024	Monday	Onboarding, Access controls, and Real-time analytics and dashboards. (Lab: Offline)		Assignment/Test: Use case Implementation (Offline) Closing and Valedictory (Offline)