**Training on the Internet of Things (IoT)**

* **Basic Electronics:**
* **Day 1: Power, AC and DC, Multi-meter and batteries.**
* **Day 2: Type of materials, Resistance, Circuits, Series and parallel circuits, Voltage Divider circuit.**
* **Day 3: Breadboard, Potentiometer DC-DC voltage conversion and power supply. Transistor working and basic circuit as amplifier and switch**
* **Basic Programming:**
* **Day 4: What is programming and different languages used? C++ vs python.**
* **Day 5: Variables declaration and data types. Loops, Statements and functions.**
* **Day 6: Arduino IDE**
* **Microcontroller:**
* **Day 7: Integrated Circuits and its types, Microcontroller vs Microprocessor. Introduction to ESP32 series Microcontroller.**
* **Day 8,9,10: ESP32 Peripherals and integration of different sensors.**
* **Day 11: Serial Communication and integration with different modules and sensors.**
* **Internet of Things:**
* **Day 12: What is IoT and its application.**
* **Day 13: Internet and wireless communication (Wi-Fi, Bluetooth). Wi-Fi and Bluetooth on ESP32**
* **Day 14: IoT protocols and their differences.**
* **Day 15: Mqtt setup and test on esp32 with SaaS platform.**
* **Day 16: Http/Https setup and test on esp32 with SaaS platform.**
* **Automation and Security System:**
* **Day 17: Introduction to automation and its security system. Locally wireless control electronics with mobile phone.**
* **Day 18: Automate and secure system based on Light, Temperature, motion and time.**
* **Day 19 and 20: SaaS platform setup and Remotely control electronics.**