Introduction to IoT

Introduction to IoT - Sensors and Data processing

Setup Development Environment

- Install Arduino IDE, for more information see the Official documentation
  - Installing ESP8266 NodeMCU Board in Arduino IDE 2.0
- How to install CH340 driver

Hardware Review

- Dev Board: Wemos D1 Mini
- Microcontroller: ESP8266 12-E Chip ESP8266 hardware review

Coding Warm-up

Basic blink example:

Blink.ino

```
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LED_BUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LED_BUILTIN, HIGH);  // turn the LED on (HIGH is the
voltage level)
  delay(1000);                      // wait for a second
  digitalWrite(LED_BUILTIN, LOW);   // turn the LED off by making the
voltage LOW
  delay(1000);                      // wait for a second
}
```

IoT Intro Presentation