COURSE CURRICULA:

Day- 1

- Overview of electronics components and sensors
- Arduino Board and I/O description
- Installing Arduino IDE
- Structure of Arduino sketeches
- Arduino code syntax (loop, If else statement, function etc…)
- Writing a Simple Program (Blinking LED)

Day- 2

- Programming with digital I/O (switch & LED)
  - Wiring up switches and push buttons
  - Events and Actions - Deciding what to do when a button is pressed or a switch is turned on
  - Interfacing transistor as a switch.
  - Relay interfacing.
- Timers and their uses
- Programming with Analog to Digital Conversion
  - Programming with Arduino Voltmeter.

Day- 3

- PWM interfacing with Arduino.
  - Controlling power output using Pulse Width Modulation (PWM)
  - The Arduino analog output as a PWM output
  - Using PWM to vary the intensity of an LED
  - Low voltage DC motors interfacing.

Day- 4

- Serial communications
  - Introduction to RS232
  - How the RS232 port of the Arduino microcontroller communicates with the PC over a USB connection
  - Using RS232 for communication between an Arduino and a PC

Day-5

- Interfacing EEPROM with Arduino
- Various Arduino shield
- Review / Make-up class
- Practical Exam
- Projects/Assignments