

Workshop course content on AURDINO

Objective:

Arduino is a hardware and software company, project, and user community that designs and manufactures computer hardware, open-source software, and microcontroller-based kits for building digital devices and interactive objects that can sense and control physical devices

Session1:

- Introduction to embedded system
- Applications of embedded system
- Scope of embedded system
- Overview of open hardware
- AURDINO board description

Session 2:

- Introduction to micro controller
- Difference between micro controller and micro processor.
- Architecture and interfacing of micro controller
- How to use AURDINO board

Session 3:

- Introduction to programming languages
- Difference between embedded C and assembly languages
- Micro controller programming using embedded C
- Software installation

Session 4:

- Getting started with AURDINO IDE
- Writing of first program

Session 5:

- Interfacing of I/O devices
- How LED works
- Interfacing of LED
- Types of switches
- Interfacing of switches
- Types of buzzer
- Interfacing of buzzer
- Serial monitor program
- Mini project

Session 6:

- Project : RGB Interfacing & Traffic Light Control
- Project : IR Sensor, DC Motor Interfacing & Automated Door Opening System
- Project : Interfacing Bluetooth Module
- Project : Home Automation

Session7:

- Certificate Distribution