

Course Title: Arduino 2560 for Pneumatics & Hydraulics Application **Course Code: EEA 145**

Course Background / Summary:

Arduino is one of the best and cheapest embedded microcontrollers yet a powerful tool for automation and control of several engineering applications. This course will introduce and apply the Arduino Mega 2560 for pneumatics and hydraulics application. This includes basic control, system diversion, and system alternation.

Course Objectives:

- C Programming of Arduino Mega 2560
- Interface Arduino Mega with buttons, sensors, and actuators
- Utilize Arduino Mega for Pneumatics and Hydraulics application

Target Audience:

- Electricians, Research assistants, Research officer, Researcher, Academicians
- Technicians & Engineers
- Instructors

Course Duration: Min: 3 Days, Max: 5 Days

Course Contents

1.0 Introduction to Microcontroller and Arduino

2.0 Basic Theory on Pneumatics and Hydraulics System

3.0 Interfacing of Arduino with Sensors and Actuators of Hydraulics and Pneumatics Devices

4.0 Arduino C Programming Motor Control