

## Short Term Courses – NIELIT Delhi Centre

### Embedded System using 8051 and Arduino with Project

#### Objective of the Course:

This short term course focuses on students having knowledge of Basic Electronics and willing to develop career in field of Embedded System

#### Learning Outcomes:

The student will able to know the programming in 8051 Microcontroller and open source embedded development board-Arduino and industrial applications of these modern microcontrollers.

**Duration of the Course:** 80 hrs  
**(In hours)**

#### Minimum Eligibility Criteria and Prerequisite, if any:

Pursuing/Passed B.E./B. Tech /BCA/MCA/BSc./MSc.(IT/CS/Electronics) or Graduate (any stream) with PG Diploma (CA/CS/IT)/NIELIT A/B Level /NIELIT CHM-A Level or pursuing AICTE Approved three years diploma in Electronics /Electrical/Computers/Instrumentation or Equivalent.

#### Outline of Course

S. No	Topic	Hours
1.	Basic Electronics	5 Hrs
2.	8051 Microcontroller	17 Hrs
3.	Arduino	18 Hrs
	Theory	<b>40 Hrs</b>
	Practical	<b>20 Hrs</b>
	Project (Practical)	<b>20 Hrs</b>
	Total	<b>80 Hrs</b>

#### Books Recommended for Reading and Reference:

1. The 8051 Microcontroller and Embedded Systems by Mazidi
2. <https://www.arduino.cc/en/Tutorial/HomePage>