

#### National Institute of Electronics & Information Technology Gorakhpur



(Under Ministry of Electronics and Information Technology, Govt. of India) MMMUT Campus, Deoria Road, Gorakhpur-273010 https://www.nielit.gov.in/gorakhpur/

# Certificate Course in Embedded System Design

# **Certificate Course in Embedded System**

4 Weeks Online Course

### **Objective**

To mould fresh electronics engineers and to up skill working engineers into High caliber Embedded System Designers by enhancing their knowledge and skills in various hardware and software design aspects of Embedded Systems. This course offers a range of topics of immediate relevance to industry and makes the students exactly suitable for industries engaged in Embedded System development.

B.E/ B.Tech. / Diploma (in Electrical/ Electronics/ Instrumentation) (Qualified or Pursuing) or O/A Level course qualified with basic knowledge of C programming

**Eligibility** 

#### **Duration**

04 Weeks (3 Hrs. per day)

- ✓ Candidate must have latest computer/laptop with preferably 4 GB RAM or higher and Windows7/Windows10 O.S.
- ✓ Internet connection with good speed (preferably 2Mbps or higher))

# **Prerequisite**

### Certificate

Participation Certificate will be provided to the participants, based on minimum 75% attendance and on performance (minimum 50% marks) in the online test, conducted at the end of the course.

Rs. 3000/- incl. GST & all other charges.

**Course Fees** 

# **How to Apply?**

- ✓ **Step-1:** Read the course structure & course requirements carefully.
- ✓ **Step-2:** Visit the Registration portal and click on apply button.
- ✓ **Step-3:** Create your login credentials and fill up all the details, see the preview and submit the form.
- ✓ **Step-4:** Login with your credentials to verify the mobile number, email ID and then upload the documents, Lock the profile and Pay the Fees online, using ATM-Debit Card / Credit Card / Internet Banking / UPI etc.



#### National Institute of Electronics & Information Technology Gorakhpur



(Under Ministry of Electronics and Information Technology, Govt. of India)

MMMUT Campus, Deoria Road, Gorakhpur-273010

<a href="https://www.nielit.gov.in/gorakhpur/">https://www.nielit.gov.in/gorakhpur/</a>

#### **Course Content**

Day	Topic	Day	Topic	Day	Topic
Day #01	Introduction to Embedded Systems	Day #02	Classification of Embedded Systems, Architecture of Embedded Systems, Design issues of Embedded Systems	Day #03	Introduction to Microprocessor and Microcontrollers
Day #04	8 bit Microcontroller Architecture	Day #05	Introduction to Embedded C	Day #06	Microcontroller Programming using Embedded C
Day #07	Interfacing with LED & 7 segment display	Day #08	Interfacing of LCD display with Microcontroller	Day #09	Interfacing of Stepper Motor &DC Motor with Microcontroller
Day #10	Interfacing of A/D &D/A converter with Microcontroller	Day #11	Introduction to ARM Microcontrollers and Features	Day #12	ARM Microcontroller Architecture
Day #13	Driving RGB LED GPIO and 7 segment display	Day #14	Driving DC Motor thru PWM Signaling	Day #15	Interfacing 0f LPC 2138 with Graphics LCD
Day #16	Implementing CAN Protocol using LPC 1768	Day #17	Implementing Ethernet Protocol using LPC 1768	Day #18	Interfacing 0f LPC 2138 with RTC
Day #19	Django Middleware, Session & cookies	Day #20	Feedback and Final Assessment		

# **Contact Details**

Name of Course Coordinator: S.C. Agrawal, PTO

Email: <a href="mailto:scagrawal@nielit.gov.in">scagrawal@nielit.gov.in</a>
Mobile Number: 8317093881

Name of Co-Course Coordinator: D.K. Tripathi, PTO

Email: dkt@nielit.gov.in

Mobile Number: 8317093884

