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

PCB Design using OrCAD

Course in PCB design using OrCAD

Duration: - 2 Weeks. (3 Hrs. per day)

2 Weeks Online Course

Objective

To train the participants and provide them the knowledge of complete PCB design flow using proprietary tool OrCAD. Candidates will get hands on training on OrCAD tool through Virtual Lab.

Eligibility

Diploma / B. Sc. / B. Tech. in Electronics / Electrical / Instrumentation (Completed or Pursuing)

Prerequisite

- ✓ Candidate must have latest computer/laptop with preferably 4 GB RAM or higher and Graphics Card (1 GB)
- ✓ Internet connection with good speed *(preferably 2Mbps or higher)*

Course Fees

Rs. 1500/- incl. GST & all other charges.

Certificate

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.

Methodology

- ✓ Instructor-led live classes.
- ✓ Instructor-led hands-on lab sessions.
- ✓ Content Access through e-Learning portal.
- ✓ Assessment and Certification

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.

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Course Content

Day	Topic	Day	Topic
Day #01	• Introduction to Printed Circuit Board (PCB) • PCB Fabrication Process	Day #02	• Design flow with OrCAD • Creation of a project • Accessing the components • Implementation of Schematic
Day #03	• Simulation of Circuit using Pspice Simulation • Run time settings	Day #04	• Study of datasheet for packaging information • Adding footprints to the components • Creating the netlist • Placing and moving the components as per design sequence • Routing the components • Netlist
Day #05	• Importing the components on ORCAD PCB Editor • Importing, placing & routing	Day #06	• Generating the Gerber files/Manufacturing files • Generating the Bill of Material (BOM)
Day #07	• Assignment-1: PCB Design flow of Clipper Circuit • Assignment-2: PCB Design flow of 2 stage RC Circuit • PCB Yield • PCB Class and type		
Day #08	• Assignment-3: PCB Design flow of Voltage multiplier circuit. • Assignment-4: PCB Design flow of Zener regulator circuit.		
Day #09	• Assignment-5: PCB Design flow of BJT as switch Circuit. • Assignment-6: PCB Design flow of OPAMP based Oscillator circuit.		
Day #10	• Assignment 7 • Assessment		

Course Coordinator

Sh. R.P Rao (Scientist 'C')
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CLICK HERE TO REGISTER