NIELIT

राष्ट्रीय इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी संस्थान,
National Institute Of Electronics & Information Technology,
A Autonomous Scientific Society of Department of Electronics & IT (DeitY) सत्यमेव जयते
Government of India

Skill Development Course on

PCB DESIGN TECHNOLOGY

About NIELIT:

NIELIT is an Autonomous Scientific Society under the administrative control of Department of Electronics & Information Technology, Ministry of Communications and Information Technology, Govt. of India. NIELIT Centre's, in particular erstwhile CEDTI Centre's have earned brand image for quality education & training in Information Technology, Electronics Design and Technology. NIELIT is engaged both in formal & non formal Education in the area of IECT besides development of Industry oriented quality education and training in the state-of-the-art areas, establish standards to be the country's premier institution for Examination and Certification in the field of IECT. It is also a National Examination Body, which accredits institutes/organizations for conducting courses particularly in the non-formal sector of IT Education & Training.

Electronic System Design and Manufacturing (ESDM) Initiatives:

The Electronics and Hardware Industry growth trend and its existing contribution to the global electronics industry indicate that the share of IT Hardware and Electronics Manufacturing Industry has the potential to grow manifolds in India in terms of output and employment. The Government of India has announced number of initiatives in the country to create adequate infrastructure and ecosystem for manufacturing high tech electronic products. In this aspect,

there is also a need to ensure availability of trained human resources for this sector in order to sustain growth and to achieve the targets set for this sector. In this regard Department of Electronics and Information Technology (DeitY), Govt. of India has initiated a project entitled 'Capacity building in the areas of Electronics Product Design and Production Technology' which is being implemented by NIELIT Aurangabad and NIELIT Chennai and CDAC Hyderabad to carry out manpower development, promote affordable electronics design, R&D etc. As part of this initiative, the skill development programme on Printed Circuit Board Design is a initiative by these centers, especially NIELIT Chennai to generate trained manpower in Electronics and related areas who would contribute towards the growth of the industry. The skill development course aims to sensitize students about the design of PCB.

Skill Development Programme:

PCB Design: Circuit board design, also referred to as electronics drafting, involves the creation of drawings that help facilitate the construction, repair and installation of electrical instruments and equipment. Designers and drafters typically provide layout design and testing of printed circuit boards. Continue reading to learn about popular courses and training programs in circuit board design. This training course offers students the opportunity

to explore different aspects of circuit board design. Main topics of instruction include drawing and drafting guidelines, along with single and double-sided printing and design techniques. Students examine methods for circuit board layout. **Computer-Aided and Circuit Design Course**, Special projects, lectures and required exercises constitute the elements of this course. Participants learn how to use software applications to design and structure a circuit board and the functional parts necessary for successful performance. Students develop an understanding of industry guidelines which govern fabrication. **Design Technology Course**, Lessons teach the creation of silkscreen and fabrication, as well as how printed circuit board layout relates to schematic diagrams. Students develop the ability to read electronic drawings and to recognize electrical elements and hardware. **Electronics Engineering Fabrication Course**, Topics of this class include packaging procedures and methods of electrical equipment production. Lab work explores the tools and selection processes of electrical components. Students discuss the importance of connectors and specific hardware. **Advanced Electronic Circuit Design Course** addresses the advanced issues and concerns that may be encountered in the area of circuit board design, such as multi layering, surface mounting and high-speed circuitry. Students gain knowledge of progressive applications and technology utilizing computers and software to complete drafting exercises.

Course Modules:

- Need for Printed Circuit Boards

- Through Hole and SMD components

- Types of PCB

- Schematic Capture and Layout Design

- Design Rules

- Design of Single & Double Sided PCB Board

- 3D Model

- Exposure on PCB Manufacturing

Course duration:

- 5 days

Eligibilty :

- Students undergoing Diploma/B.E/ /B.Tech/M.E/M.Tech in Electronics /Electricals/Instrumentatioin

Number of Seats:

- 45 candidates per batch

Vanue :

- Will be conducted at respective Institution's premises

Timings & Fee:

Course can be arranged in mutually agreeable timings. Registration and Fee payment are as per NIELIT Chennai's terms &conditions and norms

Contact details :

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