

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
A REPORT ON "A Simplistic Printed Circuit Board Layout Design with Proteus"

1	Name of the Activity/Event	Value Added Course on " A Simplistic Printed Circuit Board Layout Design with Proteus "		
2	Date of Activity/Event	02/02/2022 To 06/02/2022		
3	Organized by	Department of Electronics And Communication Engineering		
4	Place of Activity/event	Visweswaraiah Auditorium		
5	Resource persons / guest / organization	Pantech e-learning Solutions, Chennai		
6	Type of activity/Event	Value Added Course		
7	Activity/Event objectives	<ul style="list-style-type: none"> • This course aims at providing an opportunity for students to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society. • This program serves as a platform for students to work with the recent trends in . 		
8	Participation	Students	Faculty	Total Participation
		183	-	183
9	General remarks	<ol style="list-style-type: none"> 1. To Learn the concept of Printed Circuit Board layout . 2. To Understand PCB basics. 3. To know Design factors of PCB . 4. Explanation on functions related to PCB. 5. Explanation on Artwork generation related to PCB. 		
10	Suggested Improvements	Need Hands-on session and more real time examples.		
11	Enclosures	<ol style="list-style-type: none"> 1. Program report with Snapshots 2. List of Students 3. Attendance sheet 		
12	Signature of In Charge			

The Department of **Electronics and Communication Engineering** conducted a **Value Added Course** on A Simplistic Printed Circuit Board Layout Design with Proteus from **02/02/2022 to 06/02/2022**. The resource Organization was Pantech e-learning Solutions, Chennai. The II B.Tech students from the ECE department have attended this Value Added Course.



Inauguration of the Event

A BRIEF DESCRIPTION OF THE EVENT:

A Value Added Course on “A Simplistic Printed Circuit Board Layout Design with Proteus” was organized by the Department of Electronics & Communication Engineering for II B.Tech ECE Students from **02/02/2022 to 06/02/2022** by Pantech e-learning Solutions, Chennai. Total of 182 students have attended the Course.

The course was designed as **5 Days of classroom and hands-on training**, conducted in each day with each session of 3 Hrs duration. At a high level course covers a range of topics towards:

- Enabling students to understand basic Printed Circuit Board layout design concepts.
- Provide hands-on sessions to practice the concepts covered in the training

- Enable students to develop Artwork Generation in Printed Circuit Board.



Resource person explaining about PCB

On the first day the Session started with keynote lecture on Printed Circuit Board layout design and its applications. The course instructor introduced the Printed Circuit Board to the students by stating that Printed Circuit Board (PCB) provides both the physical structures for mounted and holding of electronic components as well as the electrical interconnection between components. That means a PCB is a platform upon which electronic components such as integrated circuit chips and chips are mounted.

The next session began with how the proliferation of connected devices and the Technology capabilities is transforming the industry with Printed Circuit Board layout design. They also discussed about Basic Electronic devices, Logic gates, Control Devices.

The following session continued with the topics Microprocessors and Microcontrollers. Discussed about Functions of PCB and Classifications of PCB i.e., Single sided board, Double sided board and Multi layered board.

In the later sessions, They discussed Dielectric materials Base material and Fabrication Techniques. Design factors of PCB includes Type of circuit , Board size, Number of layers, Pad stack sizes, Hole size, Layer thickness and Board thickness.



Lecture on Printed Circuit Board Layout Design

The next day session began with Introduction on Proteus. Proteus professional is a software combination of ISIS schematic capture program and ARES PCB layout program. This is a powerful and integrated development environment. Tools in this suit are very easy to use and these tools are very useful in education and professional PCB designing.



Enlightening the Young Minds about the importance of PCB

Later on the course was planned to provide hands on experience with Printed Circuit Board Layout Design with Proteus.