



KSSEM
K S SCHOOL OF ENGINEERING AND MANAGEMENT

KammavariSangham (R) 1952

K. S. GROUP OF INSTITUTIONS

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Report on

One Day Workshop on “Introduction to PCB Design”

Event name: One Day Workshop on “Introduction to PCB Design”

Date of event: 16th December, 2024

Venue: AI&DS Seminar Hall, KSGI

Targeted Audience: 7th semester ECE Students of KSSEM (40) and KSIT (25)

Organized by: The Department of Electronics and Communication Engineering and KSRIF in Association with
IEEE Student Branch

1. Introduction

On 16th December 2024, the Department of Electronics and Communication Engineering and KSRIF, in collaboration with the IEEE Student Branch, organized a one-day workshop titled “Introduction to PCB Design”. This workshop aimed at providing students with a comprehensive understanding of the PCB design process, its significance in electronics, and the tools used in the industry for designing efficient and functional PCBs.

2. Objective

The primary objective of the workshop was to equip students with the knowledge and practical skills required for designing Printed Circuit Boards (PCBs), a crucial aspect of modern electronic systems. The workshop also aimed to bridge the gap between theoretical knowledge and practical application in the field of electronics.

3. Participants

The workshop saw enthusiastic participation from students of K. S. Group of Institutions, particularly those from the Electronics and Communication Engineering department. Over 100 students attended the event, eager to learn from industry experts and gain insights into PCB design.

4. Resource Persons

The workshop was conducted by industry experts with extensive experience in PCB design. Their expertise and real-world experience added significant value to the session, making the content both practical and insightful.



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5. Workshop Overview

Morning Session (09:00 AM - 12:30 PM)

- **Introduction to PCB Design:** The session began with an introduction to PCB design, its importance in electronics, and its application in various electronic products.
- **Basic Concepts of PCB Design:** Participants were introduced to the fundamental concepts such as PCB materials, components, layers, traces, and the design flow.
- **PCB Design Tools:** The experts demonstrated the use of popular PCB design software, highlighting features like schematic design, layout, and simulation.

Lunch Break (12:30 PM - 01:30 PM)

Afternoon Session (01:30 PM - 04:00 PM)

- **Hands-on Session:** The students were given an opportunity to work on a live PCB design project. They were guided through the process of designing a simple PCB, placing components, routing traces, and checking design rules.
- **Industry Practices:** The experts also shared industry best practices for designing reliable and manufacturable PCBs, discussing topics such as signal integrity, thermal management, and power distribution.

6. Key Takeaways

- **Practical Knowledge:** The workshop provided students with an in-depth understanding of the practical aspects of PCB design, which is a critical skill in the field of electronics.
- **Hands-on Experience:** Students were able to engage directly with PCB design tools and gain valuable hands-on experience, which will aid them in their academic projects and future careers.
- **Exposure to Industry Standards:** The participants were exposed to real-world industry practices, helping them understand the challenges and solutions involved in designing high-quality PCBs.



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7. Feedback from Participants

The feedback from participants was overwhelmingly positive. Students appreciated the hands-on approach and the opportunity to interact with industry professionals. Many students found the workshop to be highly informative and expressed interest in further exploring PCB design and related topics.

8. Conclusion

The one-day workshop on “Introduction to PCB Design” was a resounding success, with students gaining valuable insights and practical knowledge in the field of PCB design. The collaboration between the Department of Electronics and Communication Engineering, KSRIIF, and the IEEE Student Branch proved to be highly beneficial in enhancing the learning experience of the students. The event concluded with a vote of thanks and the distribution of certificates to the participants.

9. Acknowledgements

We would like to extend our sincere gratitude to the resource persons for their time and expertise, the faculty members of the Department of Electronics and Communication Engineering, and the organizing team for their efforts in making this workshop a success.



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Photo Gallery:



BAQE

Event Coordinator

Prof. Ravi Kiran B A
Assistant Professor,
Dept. of ECE, KSSEM

R. Tali

IEEE Branch Counselor

Dr. Renuka V Tali
Associate Professor,
Dept. of ECE, KSSEM

K. Senthil Babu

HOD

Dr. K Senthil Babu
Professor and Head
Dept. of ECE, KSSEM