



KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)



Approved by AICTE, New Delhi, Permanently Affiliated to JNTUK, Kakinada

PROGRAMS ACCREDITED BY NBA: B.Tech in CE, ME, EEE, ECE & CSE

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Report On Workshop

“PCB Design”

On

23rd January 2024 to 25th January 2024.

Submitted by

Dr. Kishor Babu Gunti

**Professor,
Department of EEE**

ACKNOWLEDGEMENT

We take this opportunity to thank our principal Dr. B.S.B. Reddy Abraham for giving permission along with all students.

We would like to express our special thanks to Head of the department Dr. K. Harikrishna for giving us an opportunity to go for an industrial visit.

Our heartfelt gratitude also goes to the faculty members of EEE dept. who are along with us in the workshop and guiding us through the various important aspects of PCB design in real time applications.

Objective of the event:

To gain hands-on experience of how easy it will be to assemble the board.

To ensure proper signal paths and avoid cross-talk of electrical performance and position components to use space efficiently.

To minimize electromagnetic interference (EMI) and ensure proper trace routing of signal integrity, Supply chain resilience.

To better identify their prospective areas of work in the overall organizational function.

To enhance interpersonal skills and communication techniques.

Outcome of the Event:

Student learning outcomes of the workshop and talks include the ability to:

- i. Demonstrate the applications of engineering concepts and principles learned in classroom.
- ii. Illustrate processes and products manufactured in the electrical and electronic applications.
- iii. Develop awareness of the engineering and technological aspects in the component.
- iv. Improve interpersonal skill by communicating directly with resource person.

The schedule of tour and places covered as follows.

S. No.	Date & Day	Topics
1	23/01/2024 & Monday	Introduction to PCB designing Introduction to Livewire software
2	24/01/2024 & Tuesday	Introduction of PCB Wizard software Applications of Livewire & PCB wizard Software
3	25/01/2024 & Wednesday	Introduction of Easy EDA software Experimentation and Modeling PCB

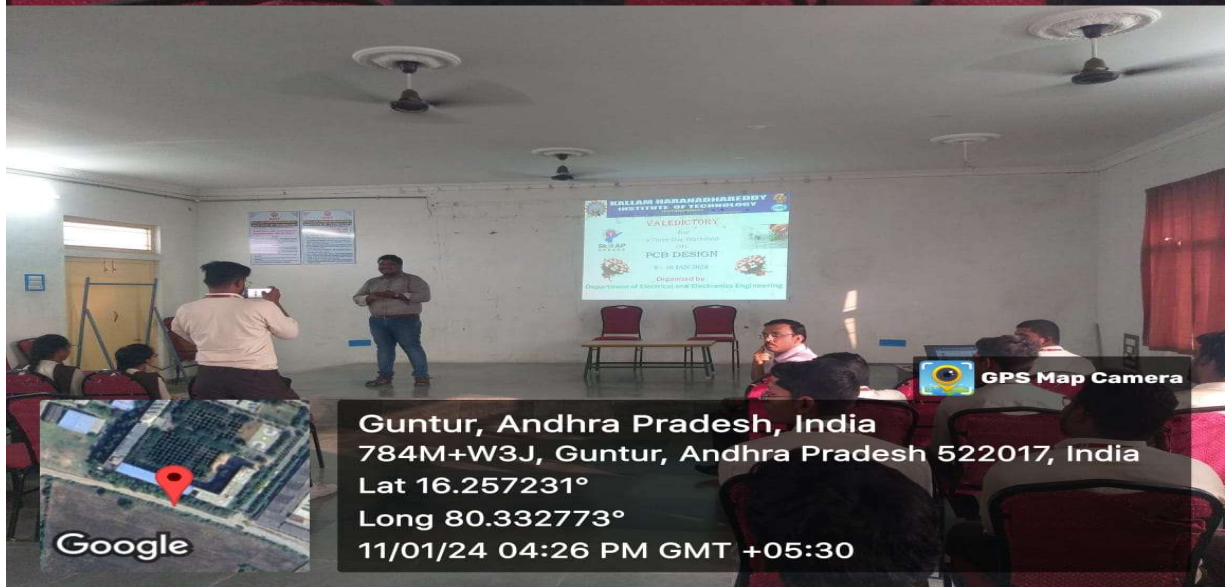
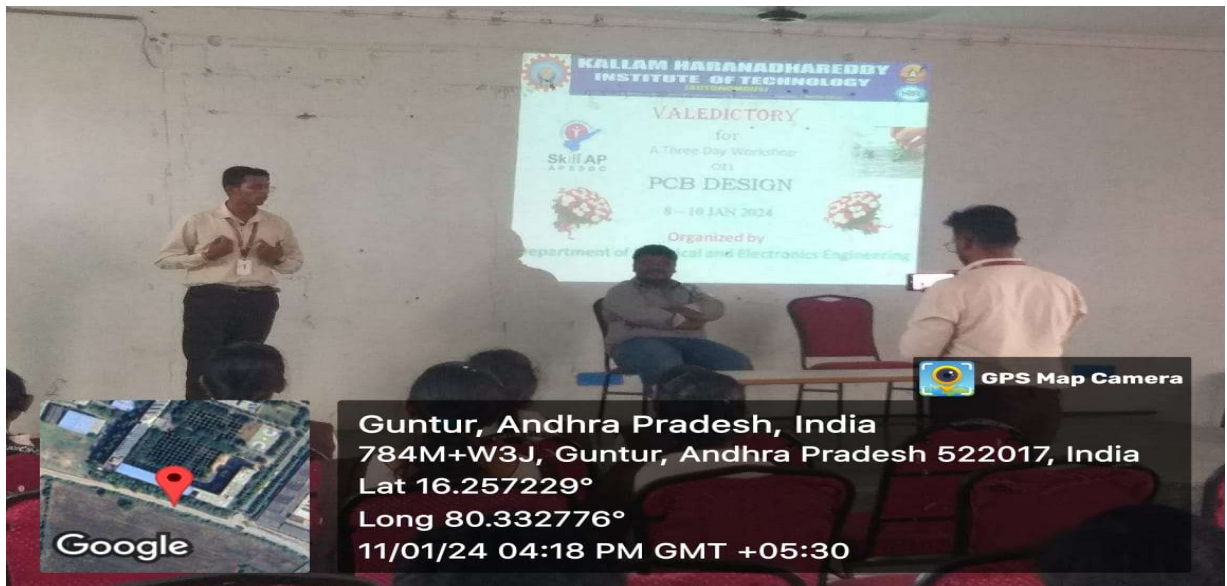
Description / Report on Event:

Department of Electrical and Electronics Engineering have organized a three-day workshop on “PCB DESIGN” in APSSDC lab (1G07). It was conducted for the students of II B. Tech of EEE Branch from **23rd January 2024 to 25th January 2024**. A total of 54 students were registered and attended for the event in offline mode. The workshop aimed to design PCB boards the students and an important of PCB DESIGN in real time applications.

Dr. K. Hari Krishna, Head of the Department of EEE went onto demonstrate the agenda of workshop. He told how students will be benefited from this workshop on their way to becoming an expert in their field and initiated the event with an inspirational speech. **Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh, Resource Person** of the event congratulated and appreciated the efforts of the students for conducted workshop in the EEE department of KHIT. He said that workshop of benefits specifically targeted for students in order to fill the void and increase the positive experience for students with a token of appreciation from entire EEE department who graced the event with his presence.







FEED BACK FROM STUDENTS:

Shaik Khadar Basha (218x1a0231): The PCB design course provided a comprehensive understanding of the design process, from schematic creation to layout and component placement. The hands-on experience with industry-standard software was invaluable, offering practical insights into real-world design challenges. However, a deeper focus on advanced topics such as signal integrity, impedance matching, and multi-layer board design would enhance the learning experience. They make us practical things to do the design in real time and we had done a small project in the design in our ideas we get a first prize in our project.

Soma Pavan Manoj(228x1a0220): I feel the course has provided a solid foundation in understanding circuit board design, from schematic capture to layout. The hands-on projects allowed me to apply theoretical knowledge practically, which significantly enhanced my learning. However, more focus on advanced techniques like multi-layer boards and signal integrity would be beneficial.

Challagundla Mani Kanta(238xa0204): I've found the course to be both challenging and rewarding. The lessons covered everything from basic circuit design to more advanced topics like component placement and routing. The practical exercises were invaluable, allowing me to gain hands-on experience using PCB design software

Shaik Shafi(228x1a0218): The software tutorials were helpful, but more time spent on troubleshooting and real-world challenges would be great. Overall, the course has sparked my interest in pursuing further expertise in PCB design and embedded systems. The feedback and support from instructors were helpful in guiding my progress .

Pralaya kaveri Gopi (238x5a0211): I would have appreciated more time spent on concepts like signal integrity, impedance matching, and multi-layer PCB design. The course could benefit from additional resources or tutorials on troubleshooting common design errors. Overall, the course has greatly improved my understanding of PCB design, and I feel more confident in applying these skills in real-world projects.

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1: Demonstrate the applications of engineering concepts and principles learned in classroom.	2	-	-	-	1	2	2	-	-	-	-	2	2	3	2
CO2: Develop awareness of the engineering and technological aspects in the component.	2	-	1	-	-	2	2	2	2	-	-	2	2	3	2
CO3: Improve interpersonal skill by communicating directly with resource person.	2	-	-	-	-	2	-	-	2	3	-	2	2	3	2
AVG	2		1	-	1	2	2	2	2	3	-	2	2	3	2

CONCLUSION

PCB design is a crucial step in developing electronic devices. It involves creating a design that meets the device's specifications and selecting the right materials and components. PCB design is a fun and rewarding profession that involves many engineering challenges. PCB design is an essential part of the electronics industry. PCB design combines fundamental concepts in electrical and electronics engineering with a focus on designing a physical product. PCB design is a critical function in the electronics industry, and demand for competent PCB designers is expected to increase in the coming decades. PCB design is an integral part of any electronic gadget or robotics. PCB design is a complex puzzle, where the rules are based on fundamental concepts in electrical engineering. Overall, this workshop, not only share the technical knowledge but also gave the happiness to each and every student and their hearts filled with beautiful memories.

HoD-EEE