

REPORT ON THREE DAY WORKSHOP ABOUT PCB DESIGN USING SIMULATION TOOLS (13-10-2022 TO 15-10-2022)

Department of ECE, Anurag Engineering College in association with IETE organized a three day workshop on **“PCB DESIGN USING SIMULATION TOOLS”** from 13-10-2022 to 15-10-2022 in collaboration with **MICROLINK PERIPHERAL CONTROLS PVT. LTD, Vijayawada**. The IETE in Electronics and Communication Engineering department arranges the various kinds of Workshops on continuous basis to enhance student's practical & technical skill and to make them compatible with industry.

The workshop was aimed to provide knowledge about Complete PCB Designing using simulation tool to test electronics circuit in software environment and also its design using the software named PCB Wizard & to make physical PCB at home so that any student can make their own circuit based on their requirement. Almost 90 students from final year (IV-I ECE department) have participated in the workshop and everyone has got a chance to work individually on a separate PCB.

Following content are covered in workshop:

- ✓ Schematic Design
- ✓ Component Footprint Design
- ✓ Integrated Library
- ✓ PCB Design and Routing
- ✓ Etching of PCB
- ✓ Soldering of Components on to PCB.

Mr. V. Govinda Rao, Director, MICROLINK PERIPHERAL CONTROLS PVT. LTD along with his team, Mr. M. Sambasivarao, Mr. Ch. Kishore and Mr. J. Mani, have coordinated & executed 3-days of PCB Design workshop appreciably to make it successful to enhance student's skill level. After attending this workshop students have expressed about their capability of designing specific purpose PCB of any Electronics circuits. This workshop will be helpful for students for circuit development of their final year project.

The duration of this workshop was three days, with seven hour session each day in a total of 21 hours properly divided into different hands on sessions. The entire participants were divided into two batches of 45 students each and parallelly both the software and hardware sessions were conducted on three days.

On 13th October,2022 the first session of expert talk started at 10:00 A.M by Mr. V. Govinda Rao and Mr. M. Sambasivarao.They started with introduction of PCB Designing, Benefits of the workshop and its applications. They explained Schematic Design of Circuit on software PCB Wizard, benefits of using PCB Wizard, and pointers to make precise schematic design. The afternoon session of Hands-on started at 1:30. P.M., where the participants are provided with laboratory sessions on Schematic design & PCB layout design on PCB Wizard. The participants also tried various demo circuits provided.

On 14th October, 2022, The First session of expert talk started at 9:30 A.M. by Mr. Ch. Kishore and Mr. J. Mani. They gave introduction of design Environment. They also explained about the process of converting from File to Film, Printing the Inner layers, Removing the Unwanted Copper,

The second session of expert talk started at 1:30 P.M. by Mr. M. Sambasivarao. He explained about Layer Alignment and Optical Inspection, Lay-up and Bond . PCB Soldering procedure & do's and don'ts of making PCB.

On 15th October 2022, The First session of expert talk started at 9:30 A.M. by Mr. Ch. Kishore. He explained various circuits which can be used often by students and motivated students to keep designing such circuits. He also addressed the students with various ideas that are useful to the industry requirements and solutions to the industry facing issues, students queries also cleared in this session.

The second session started at 1:30 P.M, with a valedictory Session and certificate distribution. Dr. M.V. Siva Prasad, Principal, AEC, Dr.V. Srinivasa Rao, HOD ECE, Dr.B. Rajan, Professor in ECE, Dr. I. Veeraraghava Rao, Professor in ECE, Mr. M. Basha, Associate Professor in ECE , Mr. L. Hari Prasad, Associate Professor in ECE, Mr. Md, Fareed Ahmad, Asst. Prof., ECE, Coordinator of the Workshop, Mr. V. Govinda Rao, Director, MICROLINK PERIPHERAL CONTROLS PVT. LTD has presided over the function. Feedbacks regarding workshop are provided by various students. All the students responded that they have learned and had hands on experience in designing a PCB. They were very excited about participation in this workshop and requested for more workshops in similar way so that they can simultaneously gain the practical knowledge.

Dr. M.V. Siva Prasad, Principal, AEC, Dr.V. Srinivasa Rao, HOD ECE, awarded the certificates to all the participants by hand. They personally congratulated every student for participating in the event and making it successful.

Concluding speech given by Mr. Md. Fareed Ahmad, Coordinator of the Workshop. He thanked the management of Anurag Engineering College, Dr. Palla. Rajeswara Reddy, Chairman, AEC, Mr. M. Jayapal Reddy, Vice Chairman, AEC, , Dr. M.V. Siva Prasad , Principal of AEC, and the entire faculty of ECE department, AEC for extending their continuous and valuable support in organizing and conducting these kind of workshops. Special Thanks are extended to the Non-Teaching Staff, office bearers of AEC, for extending their enduring support and encouragement.

He thanked every student for their active participation and interest in participating in the workshop and mentioned about the activities conducted in the college by the department. He promised that department will continue its assistance in conducting these sort of workshops and seminars in future too. He thanked the technical support given by MICROLINK PERIPHERAL CONTROLS PVT. LTD. He personally felt very happy for the response of the company and satisfied with the way they conducted the workshop. He mentioned about the marvellous support given by the HOD ECE Dr. V. Srinivasa Rao and the department in conducting the workshops.

The vote of thanks for motivate the student to participate in such workshop was given by Dr. I. Veeraraghava Rao.