



**A**

**Report On**

**Two Days Workshop on**

**“PCB Etching & circuit simulation”**

**Organized by Electrical Engineering Department of**

**GIDC Degree engineering college, Navsari**

**On 23<sup>rd</sup> & 24<sup>th</sup> August, 2018**

**At**

**Campus of GIDC Degree engineering college,**

**Navsari**

**Co-ordinated by: Prof. Ketan K. Lad, Prof. Dhaval K. Patel, Prof. Rohit**

**Damor**



The Electrical department of GIDC Degree engineering college, Navsari arranges the various kinds of Workshops on continuous basis to enhance student's practical & technical skill and to make them compatible with industry. To fulfil departmental goal and industry need Electrical department has organized a workshop on "**PCB Etching & circuit simulation**" Presented by Prof. Ketan K. Lad, Prof. Dhaval K. Patel and Prof. Rohit B. Damor, in which knowledge of "How the schematic is prepared and PCB Designing is done?" was given to the various college students during **23<sup>rd</sup> & 24<sup>th</sup> August, 2018**.

PCB Designing is one of most emerging field in today's era. For the students of Electrical this is a good practice of making their own PCB for small study projects of final year projects. Using this PCB designing knowledge, students can present their ideas of project bitterly which have major or minor electrical or electronics circuits. The workshop was aimed to provide knowledge about simulation tool to test electronics & electrical circuit in software environment, PCB design software named Proteus & to make physical PCB at home so that any student can make project on his own. Total 29 students of 3<sup>rd</sup> year Electrical engineering department were participated in the workshop.

**Following contents are covered in workshop:**

Introduction of various components (IC, Op-amp, voltage regulator, logic gates, microcontroller IC, etc.), Implementation of circuit design, Simulation and parameter measurement, Introduction to microcontroller based circuits, Design a single layer PCB, Design a Double layer PCB, Etching a single layer PCB.

Prof. Ketan K. Lad, Prof. Dhaval K. Patel and Prof. Rohit B. Damor have coordinated & executed 2-days of PCB etching and circuit simulation workshop appreciably to make it a successful workshop to enhance student's skill level. After attending this workshop students are capable of Designing Special purpose PCB Of any Electrical and Electronics Project.

The duration of this workshop will be two consecutive days, with six hours session each day in a total of twelve hours properly divided into theory and hands on sessions. On 23<sup>rd</sup> August, 2018, the first session of workshop started at 9:30 A.M by Prof. Ketan K. Lad. He started with introduction of PCB Designing, Benefits of the workshop and its applications. He explained basics of Software- Proteus tools and schematic Design of Circuit on Proteus.



**Figure 1 Lecture on circuit simulation by Prof. Ketan K. Lad**

After that, Prof. Rohit Damor explained some basic circuits and taught students to implement those circuits on proteus. In second session, Prof. Ketan K. Lad taught students how to add and simulate program file in microcontroller and also implement schematic of microcontroller board in proteus.

On 24<sup>th</sup> August, 2018, the first session of workshop started at 9:30 A.M by Prof. Ketan K. Lad and Prof. Dhaval K. Patel. They taught students how to build PCB layout in proteus for some circuits. They also explained various circuits which could be used often by students and motivates students to keep designing such circuits. In second session, they explained PCB making procedures and students made their own PCBs by following those steps.



**Figure 2 PCB etching**

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 are very excited in participation in this workshop and requested for more workshops in similar way so that they can simultaneously gain the practical knowledge.

**Coordinated by:**

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