

# **Report on**

## **Two Days Training Program on PCB Design & Related Software**

**Organized by  
ECE Department,  
Narula Institute of Technology**

**Date: 6<sup>th</sup> -7<sup>th</sup> January, 2015**

“Two Days Training Program on PCB Design & Related Software” was held on 6<sup>th</sup> - 7<sup>th</sup> January, 2015 at the Department of Electronics and Communication Engineering. The resource person was Mr. Ajay Kumar from Crescent Graphics Pvt Ltd, New Delhi.

The entire training was designed to get started with developing –ve film of a circuit and use it to make the single side PCB.

Then the deep coat machine was demonstrated. Using the deep coat machine we coat the copper board with the –ve photo resist and dry the copper board curing machine.

Then we learned the use of U.V exposer machine. Using the U.V exposer machine we can harden the photoresist material for the exact circuit by placing the copper board and –ve film of the circuit on it into the machine.

Then we learned the use of Dye and Developer machine. In this machine the previously U.V exposed copper board was first dip into the developer solution for 2min. after that the copper board was dip into the Dye solution in the machine.

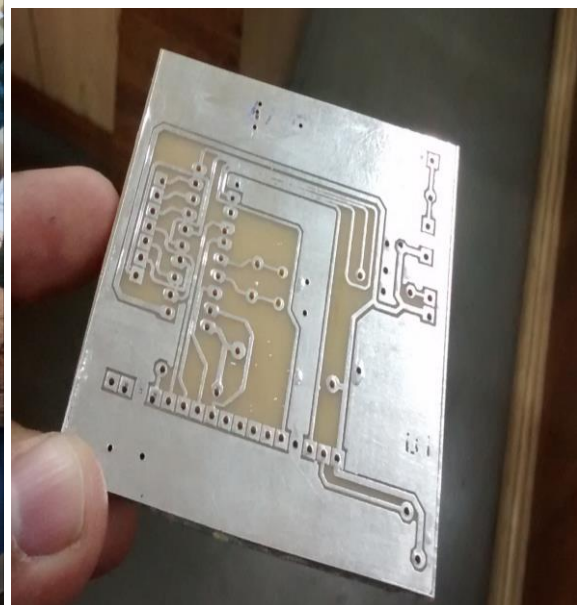
Then we learned the functionality of ferric chloride (FeCl<sub>3</sub>) Etching machine. Using this machine we removed the unwanted copper layer from the copper board.

After that we use the Drilling machine to make the required holes in the copper

board.

And finally we use the Tinning machine to make a coating of Pb + Sn on the copper board.

Single sided PCB design concepts are discussed. The training tries to provide all the information required to learn, test and apply in the circuit design concepts. It thus helps to develop the basic skill set and get hands-on different types of PCB Design techniques and PCB development techniques.



Training session was going on in PCB Design Lab

The documents are also covered with large number of exercises in the form of tested PCB design circuits to demonstrate the use and utility of the PCB Design Lab.

