Report on Demo-cum training program on

“**Designing of Electronic Circuits and Etching on Printed Circuit Board”**

 Physics Department organized Demo-cum training program on **“Designing of Electronic Circuits and Etching on Printed Circuit Board”** under the guidance of Head of the Department Mrs. Pratibha P. Pai.on 14th March 2016 for the students of M.Sc. (Physics) both Part I and Part II in the MSc laboratory from 8.30am to 3.30pm. The resource person was Mr.Maheshwar Falake. He was assisted by Ms. Naziya Shaikh. Both are staff members from Physics Department.

The training program began by explaining all the tools and techniques of software (EXPRESS SCH and EXPRESS PCB) which were very useful to design any electronic circuits. Initially schematic diagram of “burglar alarm circuit” was designed. Then the students were taught to draw a positive mirror layout using Express PCB software. Printed Circuit Board (PCB) can prepared by three methods – by drawing layout using permanent marker, by toner transfer method using electric iron and by photo-resistive method. The use of toner transfer method using iron was done to design the PCB. For this training program one side copper layer PCB was used. First the students printed layout on copper side of PCB. Then for etching they used FeCl3 solution to remove extra copper layer. After this process, Mr. Mahesh Falake trained them to drill at required places and made the PCB ready for the circuit.

An oral feedback from the students was taken. They were very much satisfied and the programme gave them confidence in making circuits for their projects in embedded system.

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