



## VPM's Maharshi Parshuram College of Engineering

Department of Electronics & Telecommunication

Organizing

### “PCB Designing and Fabrication”

One Day Workshop

#### WORKSHOP DETAILS

**DATE:** 17/2/2017

**Who can participate? :** - Diploma Students.

**Registration fees: Rs. 50/- per Student.**

- We will provide only one PCB -Kit in a group of 2 Students.
- Program Schedule:

Time	Activity
8.30 to 9.00	Registrations
9:00 to 9:30	Inauguration function
9.30 to 10:00	Introduction to PCB
10.00 to 11.00	Introduction to Eagle software
10.00 to 11.00	Designing circuit using EAGLE
11.00 to 11.15	Refreshment Break
11.15 to 1.15	Etching PCB
1.15 to 2.15	Drilling PCB
2.15 to 3.15	Component placement and Drilling
3.15 to 4.30	Testing circuit
4.30 to 5.00	Certificate distribution
5.00 to 5.15	VOTE OF THANKS

### **Who should attend this course!!!!**

- Beginners starting career in electronics design.
- Who find PCB design capability as job requirement
- Electronics engineers, technicians wanting to include PCB design as part of their skill set
- Electronics Hobbyists
- Those Connected with electronics production, management.

### **Objective s of workshop:**

- Understanding design steps a from schematic capture to PCB layout
- Learning PCB design considerations and rules
- Developing skills in PCB design : component placement & routing

### **Design steps**

- Schematic capture: hands-on exercises.
- Component Libraries : component symbols, packaging's & footprints
- Design considerations : signal integrity, thermal, interferences, crosstalk's
- PCB materials
- PCB layout planning
- Component placement & routing : hands-on exercises
- Design output for CAM(computer aided manufacturing)

### **Requirements:**

#### **1. Software requirement:**

Eagle 7.1 freeware

#### **2. Hardware requirement:**

Ultraviolet expose machine.

Negative photo resist solution.

Developer solution.

Ferric chloride (FeCl<sub>3</sub>)

Copper clad

**Workshop coordinator: Mr. Sushil D. Sirsat**