National Institute of Electronics and Information Technology, Aurangabad

Name of the Group: Electronic Manufacturing
Name of the Course: PCB Design & Fabrication
Starting Date: 15/05/2017
Course Duration-   5 Days
Time-   9:30 am to 5:00 pm

Preamble:

Electronic and Hardware Industry is increasingly finding applications in all sectors of the economy and thus is accepted as a key enabler in development of our country. The current growth trend and its existing contribution to the global electronics industry indicates that the share of IT Hardware and Electronics and Manufacturing in India, in terms of output and employment, has the potential to grow manifolds, driven by its emergence in the global electronics manufacturing value chain.

Objective of the course:

1. To train students to get awareness of various Packages of Electronic Components.
2. To train students in Printed Circuit Board design and Drafting.
3. To make aware of importance of documentation related to PCB design and fabrication.
4. To train students in design flow of PCB design S/W .
5. To train students in output file generation**.**

Outcome of Course:

Students can explore different aspect of Printed Circuit Board Design .Students can learn various types of PCBs. Schematic Design entry Rules for Schematic Entry ,Component Layout process/Placement Rules ,Routing Techniques for single sided ,Double sided and Multilayer PCBs..Post Processing of file for design and Fabrication documents..After completing this course students can design their own PCB for their Project and can also work in PCB Designing area.

Course Contents:

- Introduction to Packaging of Electronic Components.
- Introduction to Printed Circuit Boards .
- Types of PCBs-Single sided /Double Sided /Multi-layer .
- Introduction to Documentations in PCB Design and Fabrication.
- Introduction to Schematic Capture.(schematics Rules ,Useful tips to create readable schematics)
- Introduction to PCB Capture .(Layout Planning Rules and Useful Tips)
- Introduction to Routing Techniques (Various Routing Techniques and Useful Tips)
- Introduction to Post Processing .

Course Structure:

Introduction to Printed Circuit Boards .Types of PCBs-Single sided /Double Sided /Multi-layer,Importance of Documentations in PCB Design and Fabrication.	Day-01
Introduction to Schematic Capture.(schematics Rules ,Useful tips to create readable schematics	Day-02
Introduction to PCB Capture (Layout Planning Rules and Useful Tips	Day-03
Introduction to Routing Techniques (Various Routing Techniques and Useful Tips	Day-04
Introduction to Post Processing	Day-05

Lab Facilities: CADSTAR -Zuken

Other Contents
   a. **Course Fees**: 4,000/-
   b. **Eligibility**: ITI/Diploma/B.E. Electronics/ B.Sc. Electronics
   c. **Number of Seats** : 20
   d. **Selection of candidates:** The selection of candidates is based on the qualification subject to eligibility and availability of seats.