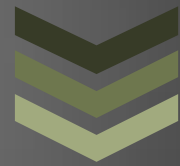


PINE TRAINING ACADEMY



Course Module

YOU'RE CAREER, OUR PASSION

10 Month Course in PCB Design

Address

D-557, Govindpuram,
Ghaziabad, U.P., 201013,
India

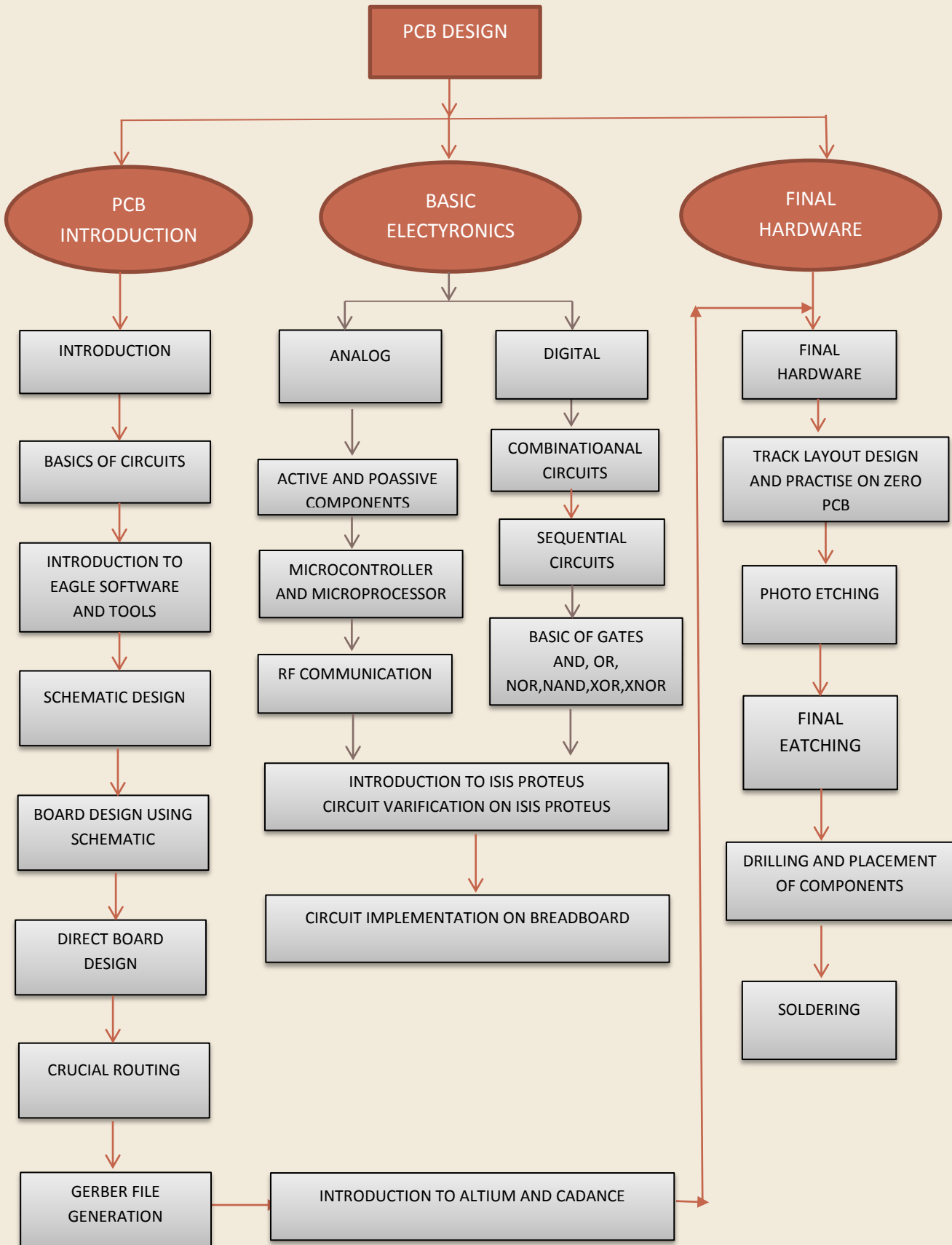
+91 9999 0 37484

vaibhav.mishra@pinetrainin
gacademy.com



8/15/2014

Certified Course in PCB Design



Highlights

- Fundamental of PCB designing.
- Advanced PCB designing.
- Introduction to EAGLE.
- Tools for PCB designing in EAGLE.
- Introduction to BREADBOARD and Circuit implementation on it.
- Introduction to SINGLE layer PCB.
- Introduction to GERBER FILE and its Generation.
- Double layer and multilayer PCB.
- Circuit implementation on ZERO size PCB
- Circuit verification on PROTEUS Software.
- Hardware implementation of design.
- Industrial Projects (single and double layer PCB designing).
- Test and Interview Series after completion of every module.
- Visit from Industry.
- Personality Development program and preparation of Interview and Resume.

FOR BASIC ELECTRONICS:

BASICS:

S.NO.	CONTENTS
1.	INTRODUCTION TO ELECTRONICS
2.	BASICS OF CIRCUIT
3.	RESISTERS AND THEIR PRACTICLE FEATURES
4.	CAPACITORS AND THEIR PRACTICLE FEATURES
5.	DIODE AND THEIR PRACTICLE FEATURES
6.	TRANSISTERS AND THEIR PRACTICLE FEATURES
7.	LEDS AND VOLTAGE REGULATORS
8.	INDUCTORS AND THEIR PRACTICLE FEATURES
9.	CIRCUIT PRACTISE ON BREAD BOARD
10.	CIRCUIT PRACTISE ON BREAD BOARD
11.	PROJECT ON ZERO PCB

PCB DESIGN		
Module	Detailed Syllabus	Duration
Module – 1 Introduction to PCB , Work on Bread Board and Projects on Zero PCB	<ul style="list-style-type: none"> ❖ Introduction to Pine Training Academy. <ul style="list-style-type: none"> • Introducing PCB Design and Philosophy. • PCB Design and Development Process. ❖ Introduction to PCB Industry. <ul style="list-style-type: none"> • DESIGN Engineers. • LAYOUT Engineers. • TESTING Engineers. ❖ Introduction to Bread Board. <ul style="list-style-type: none"> • Power Supply. • Fire Alarm. • Simple Water Level Alarm. • Infrared Motion Detector. ❖ Introduction to Zero PCB <ul style="list-style-type: none"> • Power Supply on Zero PCB. 	
Module – 2 Introduction to Software and Schematic Design	<ul style="list-style-type: none"> ❖ Software (EAGLE): - practical view:- <ul style="list-style-type: none"> ➤ Library. ➤ Project Making. ➤ Adding Components. ➤ Tools ❖ PCB Schematics Design :- <ul style="list-style-type: none"> • Introduction to Schematic Design. • Circuits on Schematics: <ul style="list-style-type: none"> ➤ Power Supply ➤ Fire Alarm ➤ RF Circuit ➤ Motor Drivers Circuit ❖ Simplifying PCB Design ❖ ERC (Errors Rule Check) 	

<p>Module 3. Board Design and Layout</p>	<ul style="list-style-type: none"> ❖ Layout Procedure:- <ul style="list-style-type: none"> • From schematic. • Direct Board. ❖ Routing: <ul style="list-style-type: none"> • Manual. • Auto – Routing. ❖ Crucial Routing. ❖ DRC (Design Rule Check). ❖ Complex Circuit Design ❖ Double Layer Design ❖ GERBER Files 	
<p>Module – 4. Development of PCB and Testing.</p>	<ul style="list-style-type: none"> ❖ Introduction to Etching:- <ul style="list-style-type: none"> • Process Used. • Chemical Involved. ❖ Placing Components:- <ul style="list-style-type: none"> • Selecting Components. • Placing. • Soldering. ❖ Testing ❖ Finishing 	