## TECHNOLOGY LEARNING CENTER

.. Finishing School for Engineer's

### WORKSHOP ON PCB DESIGNING

You've designed your circuit, perhaps even bread boarded a working prototype, and now it's time to turn it into a nice Printed Circuit Board (PCB) design. For some designers, the PCB design will be a natural and easy extension of the design process. But for many others the process of designing and laying out a PCB can be a very daunting task. There are even very experienced circuits designers who know very little about PCB design, and as such leave it up to the "expert" specialist PCB designers. Many companies even have their own dedicated PCB design departments. This is not surprising, considering that it often takes a great deal of knowledge and talent to position hundreds of components and thousands of tracks into an intricate (some say artistic) design that meets a whole host of physical and electrical requirements.

### ABOUT WORKSHOP:

The Workshop is dedicated to one can learn the designing and manufacturing of a Printed Circuit Board. The PCB Workshop is an invaluable resource for those learning PCB design. Designing a PCB isn't something you'll do in a couple of hours, it's a highly technical learned skill that will take years to master. The Workshop will provide the basics of PCB design as well as more advanced topics.



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### From this work shop one can learn:

- 1. Introduction to PCB'S, Brief history
- Different types of PCB'S
- 3. Introduction to Ki-CAD(software)
- 4. Knowing the Environment of Software
- 5. Exploring the Library files
- 6. Drawing the Schematics
- Annotation & ERC rule check
- 8. Net list generation
- 9. Selecting &Designing the Footprints
- 10. Editing & Routing
- 11. Gerber generation
- 12. Creation of components, modules and adding them to the library
- 13. Toner transfer method
- 14. Etching process
- 15. Hand Drilling
- 16. Soldering Techniques

### Workshop highlights

- Learn & Interact with renowned Industry Experts.
- Receive an unparalleled education on the art of PCB designing with personal one-on-one attention
- Covers all the basics of PCB'S.
- > Softcopy developed by well established Industry experts.





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Hands on Demonstrations of Latest PCB Techniques & Tools. All the necessary software & Hardware would be provided.

### Benefits of the participants

- > Certificate of Participation to all Participants from Technology Learning Center
- > Free Softcopy of workshop content
- > 1 Take Away PCB board done by themselves
- > Technology Learning Center summer training redemption coupon

### Our Requirement for the program:

- Minimum of 50 teams for conducting the workshop
- One Computer CD-ROM drive for each team or students are requested to get their laptop preferably with Windows OS.
- LCD projector and microphone PA system.
- Seminar hall or computer lab for conducting the workshop.

### Workshop Duration:

• 2 Days [7 Hours/Day]

### Pre-requisites:

The modules are designed in order to cater the basics of Robotics and coding however following prerequisites will be an added advantage.

- Basic knowledge of PCB types.
- Basic Electronics.



