

Course Title: PCB Design and Fabrication

Course Code: EEA 207

Course Background / Summary:

A printed circuit board (PCB) is a flat plate or base of insulating materials that contain a pattern of conducting material and components, and some projects can be quite complex. But all PCBs have to start somewhere — and that's with design. Proteus Professional is a software combination of the ISIS schematic capture program and ARES PCB layout program. This is a powerful and integrated development environment. Tools in this suit are very easy to use and these tools are very useful in education and professional PCB designing. As professional PCB designing software with integrated space-based auto-router, it provides features such as fully featured schematic capture, highly configurable design rules, interactive SPICE circuit simulator, extensive support for power planes, industry-standard CAD/CAM & ODB++ output, and integrated 3D viewer.

Course Objectives:

- Apply Schematic design process techniques using appropriate software
- Develop PCB circuit using appropriate software and generate the Gerber files

Target Audience:

- Educators, Engineers, IOT Analytics, Fresh Graduates, Industrial Workers

Course Duration: 3 Days

Course Contents

1.0 Introduction to Proteus

2.0 Schematic Design (ISIS)

3.0 PCB Layout (ARES)

4.0 Output Files (Gerber, BOM, Pick and Place)