

**PCB Designing single and multi-layer with Real-time Applications  
with examples and Practicals  
Interdisciplinary Program  
Powered by Virtual Innovation Lab  
(In conformance with UN SDG)**

**Eligibility: EEE, CSE, ME, CE BTech (I-IV) Years. Instructor Led Training.**

Objective: The world is embarking on the 4th Industrial revolution. We need solutions and platforms for teachers and students to improve teaching, learning and research competence and develop 21st century skills like problem solving, innovation, collaboration, leadership and practical skills.

Outcome: To help students understand the Multilayer PCB designing using design software.

S.No.	Course Outline
1	Introduction to the course and software
2	Explaining the way to pick up the right Components from the library
3	Explaining the Components Interface and Designing the PCB of your First Circuit
4	Components dealing like editing, replacing, wiring and adding
5	Designing the user defined component (Which are not available in library) Part-1
6	Designing the user defined component (Which are not available in library) Part-2
7	Designing the user defined component (Which are not available in library) Part-3
8	Designing the user defined component (Which are not available in library) Part-4
9	Designing single layer PCB with Auto Routing and Manual
10	Designing double layer PCB with Auto Routing
11	Designing double layer PCB with Manual routing
12	Designing double layer PCB with SMT components with Auto routing
13	Designing double layer PCB with SMT components with Manual routing
14	Designing the high frequency circuit
15	Generate and checking the Gerber Files