REPORT

3 Day Workshop on PCB Design

Date: 15 to 17 September 2025

Venue: CCF Lab, ACE College of Engineering

Organized by: IPCS Global Trivandrum

Number of students attended: 24 (S3 Mechatronics)

A three-day hands-on workshop on PCB Design was successfully conducted by IPCS Global for Semester 3 Mechatronics students, with the goal of providing practical exposure to the complete PCB design workflow using industry-standard tools such as EasyEDA and LCSC. Students began by understanding the fundamentals of project-based PCB design and developing functional block diagrams for selected hardware projects like Temperature Monitors, IoT Relays, and LED Controllers. They created multi-sheet schematics, managed component libraries, and designed custom symbols and footprints. The use of buses, net labels, and hierarchical blocks was introduced to improve schematic clarity and organization. Electrical Rule Checks (ERC) were performed to ensure design accuracy before converting schematics into PCB layouts. Students then proceeded to layout design, including board outline creation, component placement, routing strategies for single and double-layer boards, via placement, and ground plane implementation using copper pour. Design Rule Checks (DRC) were carried out to identify and resolve any layout issues. Finally, students generated all necessary manufacturing files, including Gerber files, Bill of Materials (BOM), and Pick-and-Place (CPL) files, preparing their projects for fabrication using the JLCPCB workflow. The workshop concluded with final project reviews, corrections, and discussions on fabrication processes and best practices. The workshop provided valuable hands-on experience in modern PCB design and significantly enhanced the students skills in electronic hardware development.


GPS Map Camera
Thiruvananthapuram,Kerala,India
Karinkadamugal, Thiruvananthapuram, Kerala 695027, India
Lat 8.437513, Long 76.966637
09/15/2025 11:34 AM GMT+05:30
Note : Captured by GPS Map Camera
Maps


GPS Map Camera
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Karinkadamugal, Thiruvananthapuram, Kerala 695027, India
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Karinkadamugal, Thiruvananthapuram, Kerala 695027, India
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Certificate