



**WORKSHOP ON** 

## PCB DESIGN AND EMBEDDED SYSTEMS

**CRAFTING CIRCUITRY** 

**CODE FOR TOMORROW** 

SESSION I

**17.12.2024** , 18.12.2024

MASTERING PCB DESIGN

From Schematic Creation to Layout Implementation SESSION 2

19.12.2024

EMBEDDED SYSTEM
BOOT CAMP

Programming
Interfacing, and Applications

SESSION BY.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

"Workshop on Mastering PCB Design and Embedded Systems"

**PROGRAM DETAILS:** 

Date: 17<sup>th</sup> December 2024 to 19<sup>th</sup> December 2024

Venue: Systems Lab

Speaker: Arjun Das P, Lecturer in the ECE Department, Model Polytechnic College, Painav.

The Department of Electronics and Communication Engineering (ECE) at MBCCET, Peermade, organized a workshop facilitated by Mr. Arjun Das P, an esteemed alumnus of the ECE Department and currently a lecturer at Model Polytechnic College, Painav. The workshop, titled "Mastering PCB Design and Embedded Systems", was conducted from 17th to 19th December 2024, with sessions tailored for different student groups. On 17th December, the focus was on equipping second-year ECE students with practical skills in designing and producing Printed Circuit Boards (PCBs) using Proteus Software. The sessions on 18th and 19th December were designed for third-year ECE students, aiming to provide hands-on

experience and deeper insights into both PCB design and embedded systems.

The primary objective of the "Mastering PCB Design" workshop was to provide second and third-year ECE students with practical knowledge and hands-on experience in designing and producing Printed Circuit Boards (PCBs) using Proteus Software. The session covered the entire PCB design process, starting from schematic creation to layout implementation, with a strong focus on best design practices. Students were introduced to industry-standard tools such as Proteus and were guided through fundamental steps including component selection and placement, schematic creation, routing, and layout optimization. Emphasizing experiential learning, the workshop enabled students to actively engage in creating their own PCB designs while gaining valuable insights into optimizing layouts for functionality, manufacturability, and real-world application.

The "Embedded System Boot Camp" for third-year ECE students offered an in-depth exploration of programming interfaces and the practical applications of embedded systems. The session focused on microcontroller programming, interfacing peripherals with embedded platforms, and real-world application development. Participants engaged in hands-on coding exercises and implemented practical projects, which significantly enhanced their understanding of embedded systems in various engineering contexts.





















