# REPORT ON SKILL-BUILDING WORKSHOP: PCB- BASED MINI-PROJECTS AND SELF-SOLDERING ESSENTIALS" ORGANIZED BY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING IN ASSOCIATION WITH ISF

**Workshop Details:**

**Title**: Skill-Building Workshop: PCB-Based Mini Projects and Self-Soldering Essentials

**Date**: 5th to 7th May 2025

**Time**: 9:30 AM to 4:30 PM

**Venue**: Department of ECE, ATMECE, Mysuru

**Participants**: 4th Semester ECE Students

## Objective:

The primary objective of this workshop was to provide hands-on experience in soldering techniques and modeling of PCB-based mini projects. The aim was to bridge theoretical knowledge with practical skills, thereby empowering students with essential hardware prototyping and design capabilities.

## Schedule:

| Day | Date | Session Time | Topics Covered | Resource Person |
|---|---|---|---|---|
| 1 | 05-05-2025 | 11:00 AM – 12:30 PM | Introduction to Soldering Technique | Technical Team |
| | | 2:00 PM – 4:30 PM | Basic Soldering | Technical Team |
| 2 | 06-05-2025 | 9:30 AM – 12:30 PM | Modeling of Project 1 | Technical Team |
| | | 2:00 PM – 4:30 PM | Modeling of Project 2 | Technical Team |
| 3 | 07-05-2025 | 9:30 AM – 12:30 PM | Modeling of Project 3 | Technical Team |
| | | 2:00 PM – 4:30 PM | Evaluation and Valedictory | Technical Team |

**Day 1 – May 5, 2025**

The first day of the workshop began with an inaugural session from 9:30 AM to 11:00 AM, marking the formal commencement of the event in the presence of faculty, resource persons, and participants.

Following the inauguration, from 11:00 AM to 12:30 PM, the first technical session introduced participants to the fundamentals of soldering techniques. This included a discussion on soldering tools, safety precautions, types of solder joints, and common soldering practices used in electronics assembly.

In the afternoon session, from 2:00 PM to 4:30 PM, participants engaged in hands-on basic soldering practice. Under the guidance of the technical team, they practiced creating simple circuits on PCBs using soldering irons, wires, and components—laying the foundation for the mini projects in the upcoming days.

**Day 2 – May 6, 2025**

The second day focused on project modeling and implementation.

In the morning session, from 9:30 AM to 12:30 PM, participants worked on the modeling of Project 1. They applied their basic soldering skills to assemble and test a simple circuit-based mini project.

The afternoon session, from 2:00 PM to 4:30 PM, was dedicated to the modeling of Project 2. Students began implementing a more complex circuit, involving multiple components, troubleshooting methods, and design analysis.

**Day 3 – May 7, 2025**

The final day of the workshop emphasized further project development and conclusion. From 9:30 AM to 12:30 PM, participants worked on the modeling of Project 3, which included more intricate design, testing, and debugging.

The afternoon session, from 2:00 PM to 4:30 PM, was devoted to the evaluation and validation of the projects. Teams showcased their completed projects, received feedback from the resource persons, and participated in the valedictory session, which marked the successful completion of the workshop.

**The Technical Teams members are as follows**

1. Mr. Manjunath H R
2. Mr. Somasundara S
3. Mr. Srikanthmurthy B
4. Mr. Jayaprakash Narayana
5. Mr. Abhinandan V A
6. Mr. Karunakara Babu

The glimpse of workshop is as shown below