

■ ■ DEBUG CIRCUIT

City Engineering College (CEC)

Department of ECE

■ Objective

Participants must identify and correct errors in a given electronic circuit within the given time to achieve the correct output.

■ Competition Format

1. Type: Team – 2 to 3 members per team [participants can be from any branch]
2. Rounds:
 - Round 1 – Basic circuit debugging (theoretical/simple)
 - Round 2 – Advanced circuit debugging (complex/multi-component)
3. Time Limit: 1 hour for each round

■ Rules

- No external help or internet use is allowed.
- Participants must not bring their own components – all will be provided.
- Any damage to lab equipment due to negligence leads to disqualification.
- Each circuit contains deliberate mistakes (wrong connections, polarity, missing grounds, etc.).
- Participants are given circuit diagrams, make and debug the circuit within the given time.
- Participants must identify and correct these errors to get the correct output.
- Judges' decisions are final and binding.

■ Scoring (5 Points Total)

- Correct output obtained – 2 points
- Faults correctly identified – 1 point
- Time efficiency – 1 point
- Explanation and reasoning – 1 point

■ Materials Provided

- Breadboard / PCB
- Power supply
- Multimeter
- Basic components required (resistors, capacitors, ICs, LEDs, transistors, etc.)
- Faulty circuit diagram

■ ■ Disqualification Criteria

- Copying or sharing circuits between teams
- Using phones/internet during the event
- Mishandling lab equipment

- Arguing with judges or organizers

■ Winner Selection

Winners will be selected based on the highest total points and least debugging time.