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STEPCONE-2025
STANDARD OPERATING PROCEDURE

EVENT NAME: Circuit Debugging

DEPARTMENT NAME: Electronics and Communication Engineering (ECE)

EVENT TYPE: Technical Event

EVENT DESCRIPTION: This contest invites electronics enthusiasts to test their skills in identifying and fixing faults in various circuits. Participants will diagnose intentional errors in a series of circuits, with each round increasing in complexity and requiring quick thinking, precision, and deep electronics knowledge. The goal is to debug each circuit within the time limit, showcasing expertise and gaining hands-on troubleshooting experience in a high-energy, competitive setting.

EVENT GUIDELINES:

1. Eligibility:

- Open to all electronics students, enthusiasts, and professionals interested in circuit debugging.
- Participants may enter individually or as teams.

2. Event Structure

- *Rounds:* The contest consists of multiple timed rounds, with increasing complexity in each round.
- *Types of Circuits:* Challenges will feature a range of analog and digital circuits. Advanced rounds may include more complex configurations.

3. Tools and Equipment

- *Provided Tools:* Multimeters, oscilloscopes, breadboards, power supplies, and essential components will be available at each workstation.
- *Personal Tools:* Participants may not use external tools or components unless specified by the organizers.

4. Scoring and Judging Criteria

- *Accuracy:* Points are awarded for correctly identifying and fixing issues within each circuit.
- *Speed:* Additional points are given for completing each task

quickly.

- ***Explanation:*** Participants must briefly explain the identified faults and fixes for verification by judges.

5. Rules and Conduct

- ***Time Limits:*** Each round has a fixed time limit. Participants must submit their solutions before time expires.
- ***Safety Protocols:*** Participants must follow safety protocols when handling tools and components.
- ***Penalty:*** Incorrect fixes or failure to explain solutions may lead to point deductions.

6. Prizes and Recognition

- Top performers will receive prizes, along with certificates recognizing their circuit debugging skills.

7. Disqualification

- Use of unauthorized tools or failure to comply with contest rules may result in disqualification.

Team Size/No of Participants: 2 per team
PLAN OF ACTION: -
Day-shift event
Duration of event: 4 Hrs
Judging Criteria: based on accuracy, speed and explanation of fault finding.