PAAVAI ENGINEERING COLLEGE
(Autonomous)
Techfinix '26

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

EVENT DESCRIPTION

1. Event Name: SIGNAL SPY

Note: Three Students per team.

Faculty Coordinator: Mr. S.Vijay Murugan

Faculty Number: 9894749134

Students Coordinators: Kannan K.S, Radhakrishnan S

Students Number: 9345616196 , 8015381129

Event Description

Signal Spy is a technical challenge that puts participants' signal-processing and circuit-analysis skills to the test. From recognizing hidden waveform patterns to analyzing signal parameters and observing real-time outputs using a CRO, participants must think quickly and accurately. The event combines theoretical knowledge, practical skills, and logical problem-solving to create an engaging ECE experience. It provides participants with an opportunity to apply classroom concepts in a hands-on and competitive environment.

Event Rules:

- Participants must follow the instructions given by the event coordinators at all times.
- Use of mobile phones, smartwatches, or external reference materials is strictly prohibited.
- Any form of malpractice or unfair means will result in immediate disqualification.

- Participants must handle all electronic components and equipment safely and carefully.
- Participants must complete each task within the specified time limit.
- Communication with other teams during the event is not permitted.
- Participants must not tamper with or modify the provided equipment without permission.
- In case of a tie, accuracy and completion time will be considered.
- The decision of the judges/event coordinators will be final and binding. Use of mobile

Events Duration :1 hours 30 mins

Task completion:1 hour

Evaluation: 30 mins

2. Event Name: Smart Fault Hunter

Note: Three Students per team.

Faculty Coordinator: Mr. D.Satheesh Kumar

Faculty Number: 8072552002

Students Coordinators: Thirisha P, Sathiya S

Students Number: 6383256612 , 9385330639

Event Description.

Smart Fault Hunter is a practical troubleshooting competition where participants step into the role of electronic fault investigators. The event challenges them to trace unexpected circuit behavior, locate hidden faults, and determine the cause of circuit failures through systematic testing and observation. Participants will work with electronic components and circuit setups to identify errors and arrive at the correct solution within a limited time. The event emphasizes fault diagnosis, circuit understanding, decision-making, and effective troubleshooting techniques, providing an engaging platform to demonstrate practical ECE expertise.

Event Rules:

- Participants must complete the Circuit Hunt within 15 minutes.
- Participants must answer all questions independently without external assistance.

- The top-scoring participants/teams will qualify for the next round.
- Participants must identify the given electronic components within 15 minutes.
- Participants must provide the correct component name and, if required, its basic function.
- The decision of the event coordinators regarding identification will be final.
- Participants must design and construct the given circuit within 30 minutes.
- All components and connections must be handled carefully and safely.
- The circuit will be evaluated based on correctness, functionality, and completion time**.**

Events Duration :1 hours 30 mins

Task completion:1 hour

Evaluation: 30 mins

3. **Event Name:** Zero Power Innovation

Note: Three Students per team.

Faculty Coordinator: Dr.E.Sangeetha

Faculty Number: 96777 82772
Students Coordinators: Deepak D, Hariharan S

Students Number: 9087963803 , 9865720023

Event Description

Zero Power Innovation challenges participants to think differently and create innovative solutions that can function with minimal or no conventional power consumption. The event encourages participants to explore energy-efficient concepts, smart engineering ideas, and sustainable solutions. Bringing the participant's creativity, think beyond conventional methods, and also it turns the participant's innovative idea into a practical solution.

Event Rules:

- No plug-in electricity, batteries, or fuel are allowed during the demonstration.
- Only naturally available or zero-power energy sources may be used.
- Teams must bring all required materials and components for their prototype.
- Basic tools may be provided by the organizers, subject to availability.
- Each team will have a maximum of 10 minutes for setup and demonstration.
- The prototype must be safe and functional throughout the demonstration.
- The judges' decision will be final and binding.
- Any violation of the rules may result in immediate disqualification.

Events Duration :1 hours 30 mins

Task completion:1 hour

Evaluation: 30 mins