# 1. PROJECT EXPO

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**Description**

• The event is open to all years of Mechanical Engineering students with valid college ID cards.

• Each team shall consist of 2-5 members, and a participant may be part of only one team.

• Pre-registration before the event is mandatory.

• Models must be innovative, technically relevant, and preferably working models aligned with Engineering applications.

• Each team will be allotted 7-10 minutes for presentation followed by 3-5 minutes of interaction with the judges

• Evaluation will be based on innovation, technical content, working demonstration, practical application, presentation skills, and response to queries.

• The decision of the judges and organizing committee shall be final.

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**Location**

**KUCET Campus**
(Covering college premises, including ground, surroundings, and floors)

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**Eligibility: All Branches**

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**Event Timing**
**Start Time:** _____ **End Time:** _____

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**Team and Registration Details**

- **Team Size:** 4 Members
- **Registration Fee:** 149/-

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**Prize Money**

**It is based on the number of registrations**

**Student Coordinators:**

1. _____
2. _____

**Faculty Coordinators:**

1. _____
2. _____

# 2.TECHNICAL QUIZ

**Description**

Note:

Preliminary rounds will be conducted to shortlist the students if the registered candidates are more to participate in Quiz

**1st Round: BASIC ENGINEERING ROUND**

1. These questions are related to basics in mechanical engineering.

2. Internal choice was given to participants from different streams of ME, Where they can select their own choice.

3. Question choice has also been given to participants to choose any Question of their own.

4. Each question carries 10 marks.

5. The question should be answered within 30 seconds

**2nd Round: COMPONENT IDENTIFICATION ROUND**

1. Participants need to identify the component shown on the screen.
2. Question choice has been given to participants to choose any question Of their own.
3. Each team will get 3 questions. Each question carries 10 marks.
4. The question should be answered within 20 seconds.

**3rd Round: CORE ENGINEERING ROUND**

1. Each team will get an option to select topics of their own choice and relative questions of 2 will be asked on that topic which is given on the Screen.
2. Question choice has also been given to participants to choose any Question of their own.
3. Each question carries 20 marks.
4. The question should be answered within 10 seconds.
5. If the question is answered wrong, there will be negative marks of 5.

Note: If tie occurs rapid fire questions will be asked related to core. The First, second, and third prizes will be announced.

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**Location**

**KUCET Campus**

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**Eligibility: All years of Mechanical Branch**

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**Event Timing**
**Start Time: _____** **End Time: _____**

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**Team and Registration Details**

- **Team Size:** 4 Members
- **Registration Fee:** 149/-

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**Prize Money**

**It is varied based on registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____

**Faculty Coordinators**:

# 3.TECH TALK

**Description**

**Tech Talk – Oral Presentation**

**Theme: Sustainable Manufacturing and Development**

The Tech Talk Oral Presentation focuses on the theme Sustainable Manufacturing and Development, highlighting the importance of eco-Friendly practices in mechanical and manufacturing industries. The Session explores how modern manufacturing can adopt energy-efficient Machines, renewable energy integration, waste minimization, and Sustainable production techniques to ensure long-term industrial growth.Participants are encouraged to discuss mechanical engineering innovations such as green manufacturing processes, advanced materials, Additive manufacturing (3D printing), energy-efficient engines, sustainable Product design, and automation in smart factories. These technologies Demonstrate how mechanical engineering plays a vital role in reducing Environmental impact while improving productivity.

Students can choose topics such as:

• Green Manufacturing Techniques in Mechanical Industries

• Energy-Efficient Internal Combustion Engines

• Sustainable Materials in Mechanical Design

• Additive Manufacturing (3D Printing) for Sustainable Production.

- Waste Heat Recovery Systems in Industries

• Automation and Smart Factories in Industry 4.0

• Electric Vehicles and Sustainable Transportation

• Solar-Powered Mechanical Systems

• Recycling and Re-manufacturing in Mechanical Industries

• Hydrogen Fuel Technology for Future Engines

**Guidelines for Students**

• Prepare clear, concise, and visually engaging slides.

• Focus on practical mechanical engineering applications and case Studies.

• Use charts, diagrams, and technical illustrations to explain concepts.

• Ensure your presentation is well-structured and within the allotted Time.

• Avoid excessive text; highlight key engineering points. Conclude with practical solutions for sustainable mechanical Systems.

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**Location**

**KUCET Campus**

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**Eligibility: All years of Mechanical Branch**

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**Event Timing**
**Start Time:** _____ **End Time:** _____

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**Registration Details**

- **Registration Fee:** 149/- (for a team)

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**Prize Money**

**Varied based on registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

1. _____
2. _____

# 4.RAPID PRINT

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**Description**

Participants must design a 3D model within the given time and print it using a 3D printer. The winner will be decided based on design creativity, Complexity, functionality, and successful printing.Students can use CAD software like SolidWorks, AutoCAD, or Fusion 360 To create their models.

**Event Format**

1. Participants choose any model they want to design
2. Participants must design the model within the time limit (for example 45–60 minutes).
3. The file is then exported in STL format.
4. The model will be printed using a 3D printer.
5. Judges will evaluate the printed output.
6. Individual or 2 members per team

**Note:**

1) “Pre-made designs are not allowed” so students must design during the competition only.

2) Participant Must Bring their own Laptop

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**Location**

**KUCET Campus**

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**Eligibility: All years of Mechanical Branch**

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**Event Timing**
**Start Time:** _____ **End Time:** _____

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**Registration Details**

- **Registration Fee:** 149/- For a Team

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**Prize Money**

**Varied based on the registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

1. _____
2. _____

# 5. LATHE WAR

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**Description**

**A** machining challenge where participants must perform a given operation on a lathe machine within a limited time. The goal is to produce the most accurate and well-finished component based on the Given dimensions.

**Rules**

1.Each team consists of 1–2 participants.

2. Time limit will be provided for completing the machining task.
3. Participants must follow the given dimensions and specifications.
4. Only provided raw material and tools must be used.
5. Judges' decision will be final.

**Guidelines**

- Participants must wear safety equipment (gloves, goggles, apron).

• Any unsafe operation will lead to disqualification.

• Maintain proper machine handling and discipline in the workshop.

• The component will be judged based on accuracy, surface finish, and completion time.

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**Location**

**KUCET Campus**

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**Eligibility: All years of Mechanical Branch**

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**Event Timing**

**Start Time:** _____ **End Time:** _____

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**Team and Registration Details**

- **Team Size:** 4 Members
- **Registration Fee:** 149/-

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**Prize Money**

**Varied based on the registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

# 6.ENGINE ANATOMY

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**Description**

Assemble an engine or its components within a limited time and showcase your mechanical skills. This event tests participants' knowledge, speed, and understanding of engine parts, making it ideal for automobile Enthusiasts.

**Rules**

• Maximum 3 members per team

• Assemble the given engine parts in given time

• Team completing the task fastest wins

• Judge's decision is final

Guidelines

• Participants must handle engine parts carefully.

• No external help or mobile phones allowed during the event.

• Evaluation will be based on accuracy, knowledge of components, and completion time.

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**Location**

**KUCET Campus**

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**Eligibility: All years of Mechanical Branche**

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**Event Timing**
**Start Time:** _____

**End Time:** _____

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**Registration Details**

- **Registration Fee:** 149/- For a team

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**Prize Money**

**Varied based on the registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

# FLASH EVENTS

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# 1. TUG OF WAR

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**Description**

Teams pull a rope across a designated distance. The team crossing the centerline first wins.

**Guide lines**

• Teams of 6 participants

• Time limit: 45 seconds per round

• No fights or violence

• Team Should Contain minimum of 2 girls

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**Location**

**KUCET Campus**

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**Eligibility: All Branches**

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**Event Timing**
**Start Time: _____** **End Time: _____**

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**Registration Details**

- **Registration Fee:** 49/- For a team

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**Prize Money**

**Varied based on registrations**

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**Student Coordinators:** **Faculty Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

# 2. RC CAR RACE

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**Description**

Participants compete using remote-controlled cars on a specially designed track filled with obstacles. The objective is to complete the track in the shortest time while maintaining control and precision.

**Guidelines**

• Each team can have 1–2 participants.

• Participants must use their own RC car.

• The car must stay within the track limits.

• Any intentional collision or damage to the track will lead to disqualification.

• The team that completes the track in the least time wins.

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**Location**

**KUCET Campus**

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**Eligibility: All Branches**

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**Event Timing**
**Start Time:** _____ **End Time:** _____

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**Team and Registration Details**

- **Team Size:**3 Members
- **Registration Fee:** 49/-

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**Prize Money**

**Varied based on registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

1._____
2. _____

# 3. SLOW RACE (2 Wheelers)

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**Description**

A fun yet challenging event where participants ride a two-wheeler and try to reach the finish line as slowly as possible without touching the ground with their feet. The rider who takes the Maximum time while maintaining balance wins.

**Guidelines**

1. Each participant must use a two-wheeler (bike or scooter).
2. Riders must not touch the ground with their feet during the race.
3. Participants must stay within the track boundaries.

4. If a rider touches the ground or crosses the boundary, they will be Disqualified.

5. The participant who takes the longest time to reach the finish line Wins.

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**Location**

**KUCET Campus**

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**Eligibility: All Branches**

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**Event Timing**
**Start Time:** _____
**End Time:** _____

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**Team and Registration Details**

- **Team Size:**4 Members
- **Registration Fee:** 49/-

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**Prize Money**

**Varied based on registrations**

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**Student Coordinators:**

1. _____
2. _____
3. _____
4. _____
5. _____

**Faculty Coordinators:**

1._____
2._____