



SAE NIS EFFI-CYCLE 2019

"CONCEPT DESIGN CHALLENGE"



Release Date: 12th July, 2019

Event Guidelines

All teams must read the guidelines given in this document very carefully before registering their entries for the competition.

A. About Challenge

Efficycle Concept Design Challenge is an intercollegiate Concept design competition which is intended to engage engineering students in developing the eco-friendly future mobility solutions for India. The event gives participant a challenge of conceptualizing, designing an electrically assisted-human powered, real hybrid 3-wheeled, 2-seater vehicle. The vehicle should be capable of carrying 2 riders and small payload and must be able to run on Indian roads considering urban road conditions.

The competition calls participation of undergraduate, graduate and Post graduate engineering students from the institutes and universities across the country. The students participate in competition in form of a team guided by the faculty advisor recognized by the institute or university.

B. Key Points

- Event calls the participation of engineering students (UG & PG both) from all over country.
- The event will focus on developing a vehicle which can be used for personal or commercial mobility in a day-to-day application such as last mile connectivity, short transits etc.
- The solution suggested by the participant should be Innovative, Sustainable, Ergonomic and Affordable in terms of vehicle cost and running cost etc.
- The event shall be conducted along with Efficycle 2019 main event at LPU, Jalandhar.

C. Eligibility Criteria

- All participants must be enrolled in degree seeking undergraduate/post-graduate programs under any engineering disciplines.
- More than 1 team from same institute may participate.
- The institute taking part in any format of main event of Efficycle-2019 (Conventional or Advanced both) cannot participate in this challenge.
- Team can have minimum 3 to maximum 5 team members from same institute.
- One faculty advisor appointed by Institute as guide to the team during complete project work.
- Participants may belong to any engineering discipline.
- In the entire team, maximum 2 students may be:
 - a. Post Graduate
 - b. Students who have completed their graduation in 2019



SAE NIS EFFI-CYCLE 2019

"CONCEPT DESIGN CHALLENGE"



• **SAE Membership Requirement:**

All the team members and faculty advisor should have **active and valid SAE membership**. In case of not having SAE membership, write **A/F** in the respective cells at time of online registration. The membership must stand valid till main event. For SAE membership visit www.saeindia.org

D. Vehicle Requirement

• **Configuration:**

Vehicle should have a 3 wheels which are not in a straight line.

• **Powertrain:**

Dual power source i.e. Human Power and Electric Power is required.

• **Other-Subsystems:**

All other sub-systems like Steering, Suspension, Brake, Wheels, Utility Requirements Seat and Protection Devices etc shall be aligned with Efficycle Conventional Format Rules unless specifically required to update.

• **Innovation:**

Teams need to propose at least 1 innovative solution for enhancing the efficiency of vehicle. The innovation shall be presented along with the working prototype in 1:1 scale.

• **Stage of Concept:**

Concept should be 100% completed in terms of Virtual Design and Calculations i.e. ready to build stage. All calculations and drawings shall be made part of documentation package which will be referred by judges for evaluation during event.

E. Event Dates:

3 to 5 October, 2019

F. Registration Dates:

17-July-2019 to 27-July-2019.

G. Registration Procedure

Interested participants may register a team through following link:

<https://forms.gle/8oxCPyJyG4gRgzea7>

H. Registration Fees:

INR 5,000/- per team (non-refundable)

- Fees must be paid by teams directly to SAE NIS **ONLY THROUGH ONLINE TRANSFER** as per details given below. Fee deposit to SAE NIS office, through any medium, will not be accepted.



SAE NIS EFFI-CYCLE 2019

"CONCEPT DESIGN CHALLENGE"



- Following are the details for fee submission and NEFT/RTGS transfer:
 - Account Name : **SAE NORTHERN INDIA SECTION - EVENTS**
 - Bank Account No. : 67111655808
 - Name Of The Bank : STATE BANK OF INDIA
 - Name Of The Bank Branch: MARUTI UDYOG LTD (70623)
 - Bank Address : PALAM GURGAON ROAD, GURGAON - 122015
 - Account Type : CURRENT
 - IFSC CODE (NEFT) : SBIN0070623
- After fee deposit/online transfer, send the following details to efficycle.concept@gmail.com :
 - Team Registration ID (e.g. 19XXX)
 - Team Name
 - College Name
 - Address for dispatch for receipt
 - UTR No/ Transaction No. of online transfer

Please write mail with subject: <**Team Registration ID**>_ **Concept Fee Submission**.

- The receipt of fees submission will be sent to teams within 4 weeks after last date of fee submission.

I. Awards:

Awards worth upto INR 60,000/- to winners (up to 6 awards of INR 10,000/- each)

J. IMPORTANT LINKS

Any Queries related to event : efficycle.concept@gmail.com
Official announcements : <http://effi.saenis.org/>
Official Facebook group : facebook.com/groups/EfficycleSAENIS/

Efficycle Technical Committee

[Disclaimer: Any information received through any unauthorized sources such as phone calls, emails or any other Facebook groups/pages etc should be considered fake/misleading/spam. Teams must immediately check the authenticity of such information by contacting Efficycle Organizing Committee.]