SME
IIT ROPAR | **SOCIETY OF MECHANICAL ENGINEERS**
INDIAN INSTITUTE OF TECHNOLOGY ROPAR

E N E R G O N

RENEWABLE ENERGY CHALLENGE'14

SME ENERGON COMPETITION GUIDELINES

Overview

Have an idea to help solve the energy crisis we are facing? An idea that can revolutionize the way we harvest and utilize renewable sources of energy such as solar, wind, water, thunderbolt or any other waste energy. Here is an opportunity to convey your ideas and bring them to light. Want to know how? Read on!

The SME IIT Ropar Energon competition is designed to challenge you to think about such an innovative solution that will help generate useful energy and make our world greener.

Register at the website and submit your entry. Top entries will be judged by a panel of IIT Ropar faculty and eminent industry experts at the final competition, to be held on 12th April, 2014 at IIT Ropar. The winning team, determined by the panel voting, will receive a cash prize of Rs 3000.

How to Enter

Step 1: Register for the event at www.iitrpr.ac.in/sme/#energon2014
Step 2: Think of an idea to change the way we harvest and utilize renewable energy
Step 3: Make a proposal and email it to smerpr@iitrpr.ac.in

In the proposal,
I. Describe a problem or opportunity, and
II. Describe your idea for addressing it.

You will need to communicate the problem you have identified and your idea succinctly. Submit your proposal in a PDF file.You can attach CAD models or sketches if any. They are not mandatory, but still encouraged as an effective way to communicate the ideas to the review committee. Submit a zip file if more than one files are to be submitted. The total size of attachment should not exceed 25 MB.

Entry Fees*
- SME IIT Ropar members: Rs 100 per team
- Others: Rs 250 per team

Participation fee is to be paid through transfer to account number **31865773771**.
Please note the transaction ID and submit it during the registration.

*Non-refundable

Eligibility

SME IIT ROPAR Energon Competition is open to everyone (undergraduate as well as graduate students). Individual students or student teams of up to four people may enter the contest. A student may only be included on one entry, i.e., either as an individual or a member of a team.

Example Ideas

The Energon competition is open to any idea that complies with the given objective. To aid students in selecting an idea for the competition, consider the following:

Figure: Gujarat Solar Canal Project
[references: http://www.earthtechling.com/wp-content/uploads/2012/09/canals1.jpg]

Figure: SheerWind Turbine
[references: *http://machinedesign.com/site-files/machinedesign.com/files/archive/machinedesign.com/common/files/images/sheerwind%20one.jpg*]

These are great ways to obtain energy from renewable sources. Now imagine a system that makes use of at least two such resources. And don't let these examples limit your creativity!

Judging Process

Judging of entries will consist of two steps. First, an independent panel of reviewers will be asked to review and score all entries using a number of criteria. The top 10 entries will be invited to pitch their idea in a final competition before a panel of judges and a student audience. This final competition will constitute the second step in the judging process. During the final competition, the review panel will evaluate your proposals and vote to select the best ideas and competition winner.

Judging Criteria

Judges will be asked to consider the following criteria for scoring:

1. Innovation and novelty
   Judges will be asked to score entries as to whether or not your idea has a factor of freshness and novelty in it. The level of thoughtfulness that has been put in to identify the problem/opportunity shall be considered.

2. Absolute energy provided and efficiency
   Applicants will be judged on the basis of the absolute amount of energy provided as well as the efficiency of the proposed idea.

3. Consistency of performance
   Minimum fluctuations in the output of the proposed system is also an important consideration.

4. Applicability in the real world
   While the Energon Competition is mainly focused on idea generation and not on implementation of those ideas, judges will be asked to consider if the resource commitment is proportionally smaller than the value created. It is imperative that the current industries or households should be in a position to incorporate and make use of your idea.

5. Manufacturability
   The parts or assemblies required in your solution should be feasible from manufacturing point of view. 3D-printing is one of the manufacturing technique that might prove advantageous to you.

6. Monetary cost
   Judges will be asked to score entries as to whether or not their idea creates economic value, which can be due to the potential to reduce a cost or save a resource. Consideration will be given as to whether or not the cost incurred to utilize the idea is sufficiently lower than the cost savings.

Timeline

Deadline for idea submission is **27th March, 2014 by 11:59pm. I**nvitations for the final competition will be sent to students with the best ideas (as determined by the review panel). These students will participate in the Final Competition.

Final Competition:

To determine a winner, the finalists will compete in a final competition to be held on **Saturday 12th April, 2014** at IIT Ropar. The finalists will be asked to perform a live 10-minute pitch to sell the reviewers and the audience on the problem or opportunity they have identified and their idea for a solution. There will be a 5-minute question & answer session right after your presentation. The winners will be determined by scoring from an independent panel of judges.

Prizes

A certificate of participation will be given to each team. Cash prize will be awarded to the winning team. A prize will also be issued to the finalist with the pitch that communicates the identified challenge and idea for a solution in the most creative way. A description of the prizes is listed below:

Category/Prize
Best Idea: Rs. 3000
Best Pitch: Rs. 500

All finalists and prize winners will be featured on the SME IIT ROPAR website.

Disqualification

SME IIT ROPAR reserves the right to reject any entry that it determines, in its sole discretion, is obscene, violates copyright, or is otherwise inappropriate or in bad taste. This applies to all entries.

Contact us

E-mail ID: smerpr@iitrpr.ac.in

Event coordinators:

Siddhartha Agarwal
siddhartharl@iitrpr.ac.in
+91-8968773763

Atul Agrawal
atulskag@iitrpr.ac.in
+91-8699729383

Dev Gurera
devgurera@iitrpr.ac.in
+91-9888960860