

INTRODUCTION



The IEM-METD Student Design Award 2015 is organized by the Mechanical Engineering Technical Division of The Institution of Engineers Malaysia together with universities. The first student design competition is set in the context of design for natural disaster relief. Disasters such as earthquakes, hurricanes, floods, famines and wars cause destruction and suffering to mankind. Whether these are natural and inevitable, or man-made and unnecessary, we can

improve our means of reacting and aiding the victims affected. With what kind of solutions and developments can designers contribute to the prevention, relief and recovery from the effects of disasters? The design competition is open to teams of up to 5 students of Engineering related courses at universities.

The competition involves five elements:

- ❖ Work in a team to design a device or equipment that is useful during natural disaster relief
- ❖ Compete with other teams to design an innovative disaster relief device
- ❖ Produce a poster to explain and publicize the team's work
- ❖ Deliver presentation explaining the rationale for the team's work
- ❖ Take part in a peer assessment to determine the "best" design.

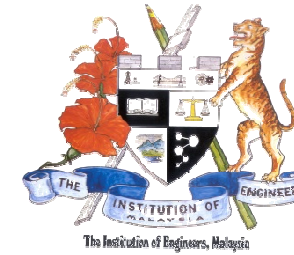
The time-line of the challenge is:

- 1st June – First announcement of the IEM-METD Student Engineering Design Competition
- 16th October – Online submission of one-page concept papers due.
- 31st October - Applicants will be notified and invited to submit full proposals based on the review of the concept paper via email.
- 15th November – Online submission of full proposals are due
- 27th November - Applicants will be notified on outcome of the review process via email
- 12th December – 10 best design concept will be invited for presentation
- 24th December – Announcement of winner during the METD AGM
(*all date is subject to change without any further notice*)

All proposals will be reviewed by the Mechanical Engineering Technical Division Committee and technical experts within IEM. We may interview teams as part of this process. We will invite these teams for a formal presentation of the proposal for a final phase. There is no travel subsidy for the students, student section advisors, or any representatives of the same to the presentation at IEM HQ.

IEM-METD Design Competition uses the following criteria for selection of proposals:

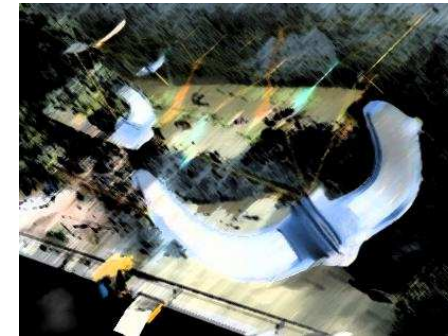
- ❖ Novelty – Is the idea fundamentally different and unproven?
- ❖ Valuable – Could the idea create substantial new value if it works?
- ❖ Doable – Is there a plan to prove the concept quickly and affordably?
- ❖ Relevant – Is the idea relevant to the disaster relief?



THE IEM-METD STUDENT DESIGN AWARD 2015

Organized by:
Mechanical Engineering Technical Division (METD)
In collaboration with Young Engineers Section (YES)

THEME: DESIGN FOR NATURAL DISASTER RELIEF



**Registration Closing Date:
16th October 2015 (New Date)**

Secretariat

c/o The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lot 60/62, Jalan 52/4
P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor
Tel : 03-79684001/2 Fax : 03-79577678
Website: www.myiem.org.my Email : ruhaida@iem.org.my

REGISTRATION FEE

IEM Student Member RM30.00/ Team
Note: There will be additional charges of RM10 per person for non-IEM members

PRIZES

- a) Cash prizes will be awarded to the first, second and third place winners. There will be separate, independent, prizes for the poster, presentation and peer review elements of the challenge.
- b) Team prize values for the best design shall be:
 - ❖ 1st prize: RM 1000
 - ❖ 2nd prize: RM 800
 - ❖ 3rd prize: RM 600
 - ❖ 7 Consolidation prizes: RM 300 / team
 - ❖ Most Supportive Institution: RM 500
- c) The team judged to have produced the “**Best Poster**” shall be awarded a further cash prize of RM300, to be divided equally between the members.
- d) The team judged to have given the “**Best Presentation**” shall be awarded a further cash prize of RM300, to be divided equally between the members.
- e) The team judged by peer review to have produced the “**Most Creative Product**” will receive a cash prize of RM300, to be divided equally between the members.
- f) The institution judged to be the “**Most Supportive Institution**” will receive a cash prize of RM500, to be given to the student association.
- g) Appropriate certificates of recognition will be awarded to all participants, winning team members and the winning institution.

RULES

A. Rules for the Poster

The poster is a demonstration of the team’s ability to sell its design solution using graphical and pictorial skills.

- a) Each University may enter more than 1 team for the poster competition; that team shall not be the same team as entered the presentation element, unless the university is entering only one team.
- b) The poster shall be A1 size in portrait format. It must clearly display the logos of the team’s University and of the IEM.
- c) The poster should concisely describe the device, how it operates and the engineering principles it is based on. In producing their posters, participants should take account of the judging criteria in Appendix B.
- d) Detailed costing of the device is not required in the poster but a summary may be included.
- e) The posters will be assessed and judged by the METD Committee Member or an appropriate delegate. The result of the subsequent decision will be final.

B. Rules for the Presentation

The presentation is a chance for ten final team to sell its design solution to the Challenge using verbal and presentational skills.

- a) Presentation data files should be submitted to the organisers’ IT/AV representative on arrival at the final event. The format shall be Microsoft Powerpoint 2010 (.pptx) or Adobe Reader X (.pdf), to be run under Windows 7 on a generic PC. The storage medium should be a USB data stick. Students should not assume the availability of a connection to cloud-based storage or other remote resources. Presentation from

students’ own laptops may be possible but only a VGA analogue interface can be guaranteed, and no compatibility of display resolution is guaranteed. DVI, HDMI, Apple Mac, AirPort, wireless, DisplayPort and other interfaces cannot be guaranteed and should be assumed to be unavailable. Students will be allowed – and are encouraged – to test their presentations as soon as possible on arrival, and make sure that they work with the IEM AV equipment.

- b) The maximum length of the presentation is five minutes, plus typically two minutes for questions. It can be delivered by any number of team members, from one person to all members of the team.
- c) In producing their presentations, participants should take account of the judging criteria in Appendix C.
- d) Presentations will be assessed according to the scheme in Appendix C and will be judged by one representative from each university. Universities will not mark their own presentation.
- e) Each team will be required to answer questions on their design.

C. Rules for the Peer Review

- a) Teams will clearly display their design along with the costing sheet in the designated spaces provided. All teams will then review all the other participating teams. Each team should make at least one member available throughout the peer review process to engage in discussion of its design’s features.
- b) Teams are asked to select and rank the top three designs they judge to be the “best designed” and vote for them by completing the slip.
- c) There will be only one voting slip for each team; competitors may not vote for teams from their own university.
- d) The team with the most “first votes” will win the peer review.
- e) In the event of a tie, “second votes” (and then “third votes”) will be counted. If a tie remains then prize money will be split equally amongst the winning teams.

D. Enforcement of the Rules

- a) On matters relating to evaluation procedure, the authority will be the chair of the IEM-METD Design Award organizing committee or his/her delegated representative(s).
- b) The judging panel comprises one representative from each of the participating universities, the Chair of the organizing committee and the METD Chairman.
- c) The decisions of the panel of judges will be final.
- d) In addition to the rules for the final outlined above, universities are responsible for internally ensuring that the spirit of the competition is adhered to during the design prior to the competition Final.
- e) If a team wishes to lodge a complaint or appeal, or to query a procedure or rule infringement they must do so through the chair of the organizing committee or delegated representative. The result of the subsequent decision is final, with no further appeal.

THE IEM-METD STUDENT DESIGN AWARD 2015

PART A: REGISTRATION FORM

Name of Team: _____		
Educational Institution Name: _____		
No.	Name	IEM Student Membership No.
1	Leader:	
2		
3		
4		
5		

PART B: CONTACT DETAILS

ADDRESS 1: (Corresponding and mailing address)	
CITY:	
STATE:	
POSTCODE:	
EMAIL ADDRESS:	
MOBILE NUMBER:	

PART C: PAYMENT DETAIL

Payment can be made via bank transfer, cheque or banker's draft to IEM. The payment detail will be informed via email upon submission of registration form.

PART D: DECLARATION

***All the participants must read and sign the following statement:**

We/I declare that the information given on this form is correct. We/I understand and agree that if we/I make any false statements, submit false information or fail to disclose information requested in this application, we/I will be disqualified from this competition.

We/I have read and fully understand the guideline or rules and regulation in which governing the IEM-METD DESIGN AWARD 2015 and agree to abide by those rules and regulations.

Participant(s) Signature(s):

No.	Name	NRIC No./ Passport No.	Signature	Date
1				
2				
3				
4				
5				

- Please complete and submit this registration form and 1 page concept paper before or on **16th October 2015 before or at 11.59pm or 23.59**. The completed registration form and 1 page concept paper should be emailed to iemetdesign@gmail.com.
- If you have any enquiries about this registration form, rules and regulations of the competition, please contact the Organising Secretariat at
Tel : 03-79684001/2
Email: ruhaida@iem.org.my.
- All fields are mandatory to be filled.