

Model Building Competition 2023

Description

Model Building Competition is a team-based competition for civil engineering undergraduates where they would put knowledge from lectures into practice by designing and building a structural model. This is the perfect occasion for undergraduate students to develop a passion for engineering as they put their creativity, problem-solving skills and workmanship to the test. Participating students are also required to briefly introduce their design, with reference made to the engineering principles applied and their idea generation process.

The theme of this year's competition is 'Structural design of long span bridges in seismic zones'. Participants are required to build a model with spaghetti within a limited time. The model will be tested by gradually loading a series of weights on the deck of the bridge, where it will be subject to (1) static condition and (2) seismic conditions simulated by using a shaking table.

Notes

- Teams must be formed by full-time undergraduate students.
- Four to six members are allowed in one team.
- All team members must be student members of the Institution of Civil Engineers.
- Contestants from previous years are allowed to join the competition.
- Where more than eight teams have registered their interest, teams will be selected by a draw.
- A refundable deposit of 100 HKD per team will be collected during registration. The deposit will be refunded if the team is not enrolled in the competition.

Competition Format

The competition is divided into three parts, namely model building, testing and presentation. The project specifications, rules and judging criteria will be made available to successful teams after registration.

Model building: Teams will be given 240 minutes to complete their models, which shall conform to the specifications provided. Teams shall follow the rules and conditions of the competition, and use only materials and tools provided by ICE. A penalty will be imposed if teams work beyond the allocated time or fail to observe the rules and conditions. Teams will also be penalised if their model does not comply with the specifications.

Testing: Details of the test procedures will be provided in the specifications. The performance of the model will be assessed based on (i) taking physical measurements and (ii) visually assessing the structural integrity. Innovative designs will also be recognised by extra credits.

All tests will be performed by ICE staff under the witness of honourable judges.

Presentation: Each team will be given five minutes to briefly introduce their design, with reference made to the engineering principles applied and their idea generation process. The presentation shall be delivered entirely in English, and a penalty will be imposed if the presentation exceeds the allowed time.

Prizes

The following cash prizes will be awarded to the following teams:

Winner: 3,000 HKD and certificates

First runner-up: 1,500 HKD and certificates

Second runner-up: 500 HKD and certificates

Best presentation team: 300 HKD and certificates

Prize and certificates for the winner, first runner-up, second runner-up and best presentation teams will be presented at the G&S Annual General Meeting.

Application deadline: 03 January 2023 (Tuesday)

Date of competition: 18 March 2023 (Saturday)

*Eligible students may register [here](#) for free student membership.

Please feel free to contact Mr Enson Wu on +852 6307 3112 or at enson123456@gmail.com / gs.hka@ice.org.uk for enquiries.

ICE HKA G&S reserves all rights of the competition except the results of the competition, which shall be at the discretion of the judges.