

## Introduction

The Faculty of Civil Engineering, UTM has been organizing the bi-annual bridge model testing competition since late nineties. The overwhelming support and interest shown by the students have encouraged the faculty to organize the competition this year. This will be the ninth time such event is organised. The aim of the competition is to encourage students to use knowledge and creativity to solve practical problems.

## Participants

Open to undergraduate students from any colleges, matriculations, universities, and also to Form 4, 5 & 6 secondary schools.

## Deadlines

Submission of entry form, project brief and drawings:

**19 February 2015**

Notice of acceptance from the organizer:

**6 March 2015**

## Rules & Regulations

### GENERAL

- The number of students in a group must not be more than five.
- Each group should be supervised by an academic staff / advisor.
- Models must be displayed during the exhibition.
- Entries not complying to the rules and regulations of the competition will be disqualified.
- Decisions by the judges are final.



### MATERIALS

- The models should be made from Balsa wood with the cross section of (5mm x 5mm) and (1.5mm x 100mm) as provided by the organizer.
- Participant should bring their own glue and relevant tools.
- Other materials such as paper, thread, straws, masking tape may be used but are not provided by the organizer.

### MODEL CONSTRUCTION

- The bridge must be constructed on 6th April 2015 at the place provided by the organizer in UTM.

### MODEL SPECIFICATIONS

- Clear span between supports should be **1000 mm**. The overall length should not be less than **1200 mm**.
- The model must be simply supported.
- The deck slab of the bridge should be horizontal and must be part of the model bridge structure.
- Maximum deck width is **110 mm** and can be accommodate dual carriageway of at least **30 mm** wide each.
- Two voids with dimensions of (**10mm x 150mm**) should be provided at locations as shown in the diagram (refer figure from our website).
- Maximum height is **300 mm**.
- Base area at both ends must not be greater than **100 x 100 mm**.
- Connection : glue or tie (thread)
- Ample space for placing dial gauge below the bridge at mid span should be provided.
- The model will be tested for **5 kg** loading for a duration of **30 seconds**.

## Assessment of Model

CATEGORY	MARKS (%)
Lightness and least deflection	50
Creativity and Buildability	30
Poster and Multimedia presentation	20

## Prizes

CATEGORY	FIRST	SECOND	THIRD
Lightness + Strength	RM1,000.00	RM750.00	RM500.00
Creativity + Buildability	RM1,000.00	RM750.00	RM500.00
Poster + Multimedia	RM1,000.00	RM750.00	RM500.00
Overall	RM1,500.00	RM1,000.00	RM750.00



## Poster & Multimedia

Each model must be accompanied by one (1) A3 poster and a multimedia presentation (3 minutes) during the exhibition. The A3 poster must have the following information:

- Name of institution / school
- Group name
- Group members
- Advisor
- Model description

## Entry Form

For more details please access to our website and download the application form at <http://www.civil.utm.my>

## Accommodation

Accommodation for the participants is not provided. However it can be arranged upon request at nominal cost (subject to availability).

## Fee

The participation fee is **RM200** per entry upon successful acceptance. However the participants have to bear their own expenses for the traveling, accommodation etc.

[www.civil.utm.my](http://www.civil.utm.my)