



TECHFEST-2022



Rules & Regulations

DEPARTMENT: Civil Engineering

NAME OF EVENT: Bridge the Gap

NO. OF MAX. PARTICIPANTS: Maximum 3 and minimum 2 participants per team
(100 max team)

EVENT DESCRIPTION:

- In this event, through (upper) truss bridge is to be constructed using Pop sticks (ice cream sticks) satisfying the stated constraints.
- The event consists of three rounds.
- First round would be based on the quiz related to bridge.
- Round 2 being the elimination round (if your structure collapse in round 2 then it will not be eligible for next round).
- Best model with load carrying capacity will enter round 3 in which seismic capacity will be checked.

TEAM SPECIFICATION:

- Team should be consisting of maximum 3 players and minimum 2 players.
- Students from different institutes can form a team for the event.
- Student should carry the valid college identity cards of their respective institute at the time of reporting.



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- Switching of team members during the on-going event will not be allowed.
- Use of any kind of help from Google is strictly prohibited.

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- Once coordinator verify the model teams are not allowed to do any change in model.

REQUIREMENTS: (Provided by Host Institute)

- Pop sticks
- Fevicol
- Deflection checking unit
- Dial Gauge
- Dial Gauge Stand
- Double sided Tape
- Cello tape
- Weighing Machine
- Shake table
- Ply wood sheet
- Weights



GENERAL RULES:

- In the first round the team would be allowed to play a quiz game on and any other electronic instruments will not be allowed during quiz.
- Once the structure is approved by authorized coordinators you are not allowed to modify the structure in any way.
- Any team that is not ready at the time specified; they will be disqualified



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immediately.

- Switching of team members during the ongoing event will not be allowed.
- Use of any kind of help from Google is strictly prohibited.
- Judges' decision shall be final and binding above all.

Specification - Bridge Specification

For Bridge:

- The length of the bridge should be 90 cm. (+ OR - (1cm))
- The width of the bridge must be 20 cm.
- Height should be 18 cm (from deck to truss).
- The layer of the sticks for deck will be 2 and for the truss it is 2.
- Also, weight will be considered according to the judging criteria.
- Clearance width of the bridge must be 18 cm for moving load.

For Pop Stick:

- Max. length = 120mm
- Width = 12mm
- Thickness = 2mm
- Fevicol MR or SH white adhesive should only be used to build a structure.

LEVEL DESCRIPTION:

ROUND 1 (Quiz): (1 hour 30 min.)

- In this, the Participants will have to play quiz of bridge construction, selected participants will be allowed in the next round, according to the points count in this round. 50% of the total teams will be selected for the next round.

ROUND 2 (Deflection check): (1 hour 30 min.)



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- In this round, Pop sticks and fevicol will be provided to the teams and they have to make a bridge in a certain specified time as suggested by the judges.
- For the deflection check, bridge will be loaded gradually and thus the deflection will be checked. The bridges with minimum deflection and higher load carrying capacity will be selected for the final round.

ROUND 3 (Seismic Check): (1 hour 30 min.)

- In this round the bridge will be placed on shake table and the strength and stability of the bridge will be checked in different seismic frequency and load.

JUDGING CRITERIA:

- Deflection will be checked by applying loading weights.
- The loads will be added at the center of the bridge.
- The bridges with minimum deflection and higher load carrying capacity will be selected for the final round.
- The seismic strength of bridge will be measured by considering the load and the frequency of vibration.
- The structure which will last for the longer time will be considered as winner.

JUDGES:

Any one Industry Expert with minimum 10 years of experience in the relevant discipline

OR

Any one Academic Expert with minimum 10 years of experience in relevant discipline

AND / OR

Any one faculty from any other GTU affiliated college in the same zone

AND /OR

Any one faculty from the Host Institute



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EVENT COORDINATORS:

You can contact the following coordinators if you have any query regarding the event.

Sr. No	Name	Faculty/ Student	Contact No	Email ID.
1	Prof. Harmya Patel	Faculty	9978916096	Harmya.patel@gperi.ac.in

