CIVILION: RULEBOOK AND EVENT SPECS

STAND-STILL

- Maximum of four members in a team.
- Materials to be used- Popsicle sticks and cold liquid glue (fevicol)
- The model has to be constructed beforehand and brought to the event for testing.
- Specification:-
    1. Model should rest on a thermocol base plate of dimensions 500x500x20 mm
    2. The columns connecting the structure to the base plate should have dimensions of 30x30x40mm. Columns inside the structure can be constructed of suitable sizes as per participant's choice.
    3. Minimum height of structure (excluding base plate) should be 400mm.
    4. Maximum height of structure (excluding base plate) can be upto 600mm.
    5. The cross sectional dimensions of the structure should not exceed that of the base plate
    6. Elements of structure (columns, beams or trusses) connected using popsicle sticks should not have a thickness of more than 2 sticks.
    7. Structure can be tapering at top.

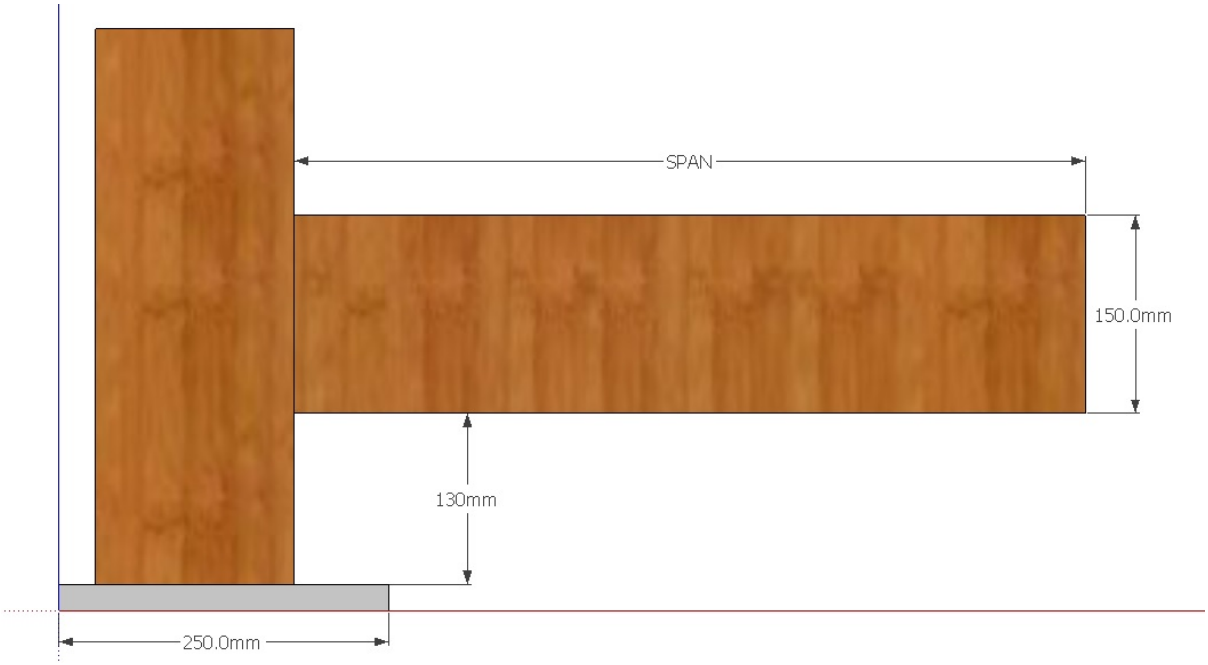
- Points will be awarded relatively on the basis of lateral deflection measured, load taken by the model and weight of the model.

BRAINIAC

- Maximum of three members in a team (lone wolves are welcome).
- There will an elimination round followed by finals.
- Contestants are supposed to bring their own scientific calculators.
- Questions will range from basic awareness and site practices to hardcore technical know-how.
- Quizmaster's decision will be final in any case.

SPAN IT

- Maximum of 4 members in a team.
- Teams have to submit a detailed design sketch of their beam 30 mins prior to start of event for evaluation.
- Models need to be constructed on the spot within a period of 3 hours (plus 30 minutes as rest period).
- Materials will be provided by the evaluators. These include popsicle sticks of size 110x10 mm, fevi-kwik glue, and a base plate of thickness 250x250x20mm.
- The support to the cantilever structure can be constructed in any shape or form as long as it stays within the base plate area. The support itself can be any height; but the cantilever beam, as it extends beyond the front of the support must be at least 130mm above the top surface of base plate and must have a depth of 150mm.



- The contestants will try to construct the cantilever beam out as far as possible, while still keeping it at 130mm from the top of the base plate, without any deflection.
- The cross section should be uniform and cannot taper.
- Elements of beam connected using popsicle sticks should not have a thickness of more than 1 stick (2 sticks cannot be joint back to back).
- Points will be awarded on the basis of cross section geometry and maximum span without zero deflection.

GREEN-O-PLAN

- Participants should form a team of four. Lone participants will be allotted teams on the spot.
- Phase 1 involves an introductory session on "Green building materials and technologies".
- Participating teams will have to prepare a tentative layout of their floor plans according to pre-set requirements (such as number of bedrooms, washrooms, dining rooms etc) on the spot within the allotted time duration.
- Phase 2 involves purchasing of assets (sustainable building materials and technologies) and incorporating them into their floor plans.
- Points will be awarded on the basis of optimum use of sustainable technologies, cost effectiveness and innovative floor plan designs.

THEKEDAAR

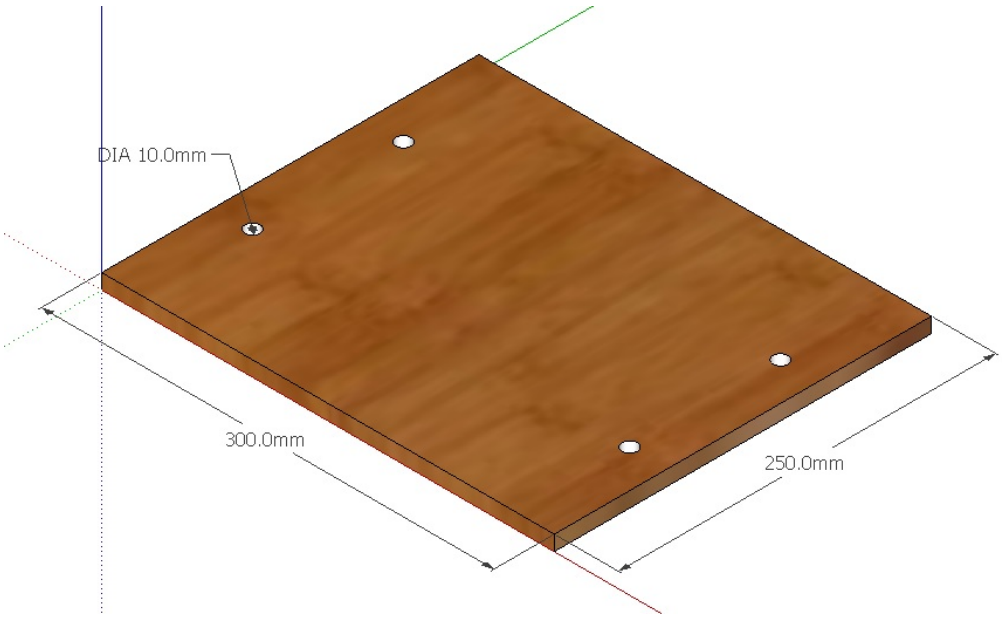
- Participants should form a team of 3-5 members.

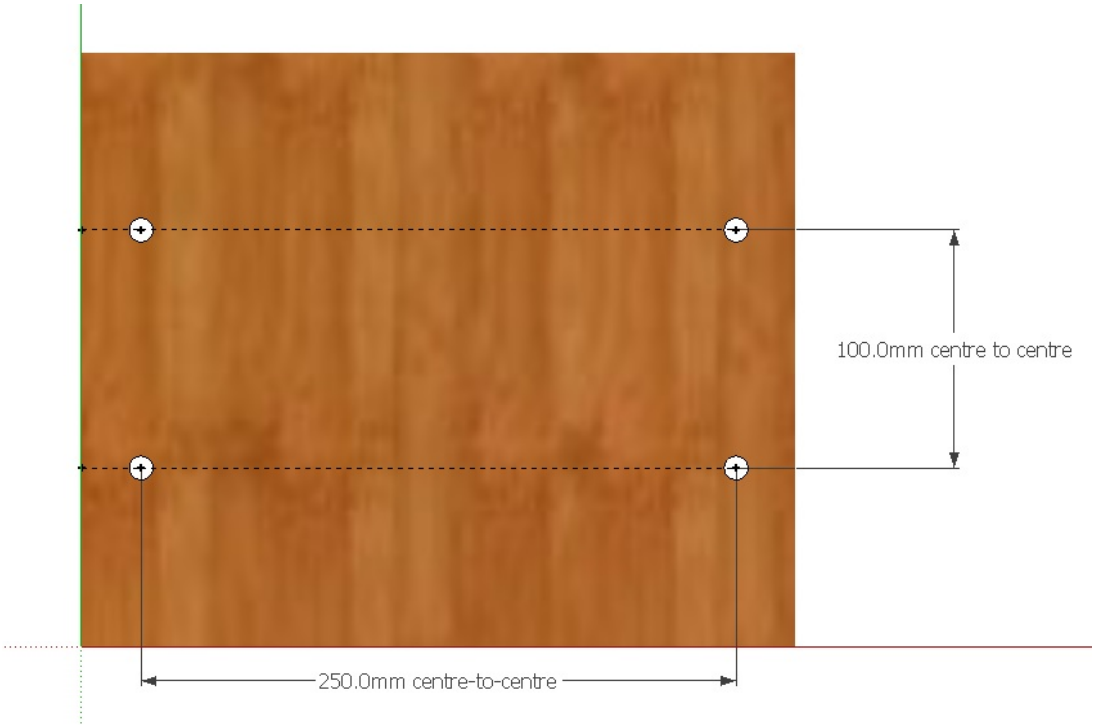
- Participants will be exposed to different aspects of the bidding process, costing and estimation and on-site management of construction project during the first phase of the event.
- The second phase involves purchasing of land area by evaluating the various site parameters such as climate, terrain, cost and other elements in the layout, using virtual money allotted to participants.
- A Schedule of Rates will be provided using which the participants have to select adequate materials, labour and resources and calculate the quality and cost of construction work.
- Points will be awarded accordingly to the best project management schemes adopted during the course of the whole event.
- The teams are required to come with scientific calculators, and they will be provided with abstract and measurement sheets and other requisite stationary on the day of the event.

QUAKE

- Maximum of four members in a team
- Materials to be used- Medium Density fibreboard/cardboard, popsicle sticks, paper, thermocol, strings and cold liquid glue (fevicol)

1. The model has to be constructed beforehand and brought to the event for testing.
2. The model should be constructed on a wooden base plate of dimension 300x250x10mm
3. The wooden base plate should be drilled with four holes of diameter ϕ10mm in order to bolt the model onto the shake table. Refer to figure for configuration of holes.





4. The minimum height of structure is 600mm (excluding base plate).
5. The model can be a column-bracing-beam-slab structure; the slab should be capable of withstanding vertical load.
6. The mass per unit floor area at each floor cannot be less than 2.5 gm/cm^2. (excluding base plate)
7. A minimum of 50% of external face of the structure should be clear of bracing.

- Points will be awarded relatively on the basis of maximum self weight of model, natural frequency attained, and ability to carry vertical loading.