

GOVERNMENT COLLEGE OF ENGINEERING AURANGABAD,  
CHHATRAPATI SAMBHAJINAGAR

## BRIDGE IT

### 1. INTRODUCTION:

This rule book defines the rules, materials, testing and judging process for the Bridge Mania. The aim is to design and build the stable, strong, efficient bridge using only the issued materials. All teams must follow these rules strictly.

#### Objective :

Participants must design & construct a truss type model of bridge given on time by using specified materials, ensuring . Maximum load bearing capacity while adhering to given constraints.

### 2. ELIGIBILITY & TEAM COMPOSITION:

- Team size: **3 students** per team.
- Online registration only.
- Each team must present a valid student ID at check-in

### 3. IMPORTANT THINGS (ON-SITE):

- Construction time: 3-4 hours (as scheduled by organizers, final time will be given onsite).
- Teams must report at the assigned check-in time. Late arrivals may have reduced construction time at organizer discretion.

### 4. MATERIALS - PERMITTED & CONTROLLED:

4.1 Issued / Permitted materials (all provided by organizers only):

- Popsicle sticks limited
- Fevicol (glue) — limited quantity (issued equally)
- Cutter(s): small  $\times 1$  & large  $\times 1$  (issued per team)
- Paper clips



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### 4.2 Restrictions:

- Students have to select one bridge design from the given design samples for construction of the bridge. If fail then that team will be disqualified.
- NO other materials are allowed. Use only materials issued by the organizers.
- Teams must return unused materials at the end.
- Any use of outside/extra materials → immediate disqualification.
- No smartphone, laptops, etc. will be allowed to use for bridge designs.

### 4.3 Material Control

- Organizers will distribute equal quantities to every team.
- A materials inventory list will be recorded at distribution and checked after the event.

## 5. TESTING & PERFORMANCE CRITERIA:

### 5.1 Measured parameters

- Total Length & Span :  $475 \text{ mm} \pm 25 \text{ mm}$
- Width :  $150 \text{ mm} \pm 20 \text{ mm}$
- Height : Minimum 110 mm to Maximum 200 mm
- Weight — total weight recorded for efficiency calculation.

### 5.2. Load Testing

- Bridges will be tested to the point of catastrophic failure or excessive deflection
- Incremental loading : Weights will be added in increments of 500 g – 5 kg

## 6. JUDGING & SCORING:

- Load – Bearing Capacity ( 50% ) : the bridge can withstand only the load given by organizers / maximum load
- Design & Aesthetics ( 20% ) : Structural efficiency and Appearance
- Material & Time Optimization ( 15% ) : Efficient use of provided materials
- Quick Answering ( 15% ) : Exceptional answering ability



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### 7. **DISQUALIFICATION & PENALTIES:**

Automatic disqualification for:

- Use of any external or unissued materials.
- Unsafe construction practices that risk harm to people .
- Failure to meet the minimum requirements as specified.
- Tampering with another team's Bridge or materials.

Penalties (at judges' discretion):

- Time penalties for safety rule breaches.
- Deduction of marks for aesthetic/alignment issues if deliberate rule bending is found.

### 8. **DISCLAIMER:**

1. These rules are probable and subject to minor changes or amendments at the discretion of the organizers before or at the time of the competition. Teams will be informed of any final changes during the onsite check-in or mandatory briefing.
2. The decisions made by the judges will be final and will be bound to all participants.
3. Any argument or unprofessional behaviour with co-ordinators or judges will not be entertained such a team will be immediately disqualified.
4. Organizing Team has the authority to make any changes in the competition without any prior notice.

### 10. **For any Query - Contact:**

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