

# BUILD VISION EXPO

☀️ *Brace yourself for the ultimate fusion of creativity, engineering finesse! Picture yourself at the forefront of ground breaking design, where your ideas leap off the drawing board and into reality. The "Build Vision Expo" isn't just an opportunity; it's your chance to redefine what's possible and sculpt a future that echoes with the sound of your success 🚀*

**Theme:** "Bridging Dreams: From Digital Vision to Real Success"

**Participation limit:** Each **team** can have **maximum 3 participants**.

**Event Structure:**

**Round 1: "Design Exploration and Selection"**

**Time limit: 3 days**

- ***Objective:*** Participants will have to plan a model of the **Bridge** on **AutoCAD** with proper dimensions and model it on **STAADPRO**.
- ***The problem statement will be released.***
- ***This will be an online round.***
- ***Rules for AutoCAD:***
  1. **Scale and Units:**
    - Ensure that the drawing is created to the correct scale.
    - Verify that the units used in the drawing match the intended scale (e.g., inches, millimetres).
  2. **Geometric Accuracy:**

- Check that all dimensions and geometric elements (lines, circles, arcs, etc.) accurately represent the intended design.
- Verify angles, distances, and alignments.

### 3. Drawing Organization:

- Confirm that the drawing is organized logically, with related elements grouped together.
- **Rules for STAADPRO:**
  - They have to determine the bending moments, shear forces, axial forces, and other structural responses using software
  - Review and analyse the results using the post-processing tools provided by the software.
  - Generate detailed reports that include bending moment diagrams and tabulated results.

### Round 2: Turning Concepts into Reality:

#### Time limit: 2 hours

- **Objective:** Selected Participants are tasked with **building the models** they planned on AutoCAD, verified for structural integrity on STAADPRO, and now, the challenge lies in transforming these digital dreams into tangible marvels using **materials provided** on the spot.
- *This is the **final and offline round**.*
- **Rules:**
  - The participant will also have to **explain** about their model.

- The real model should be **90% accurate to the plan**, it will also be a **judgement criteria**.

The following points should be there while explaining their model:

❖ **Purpose or Function:**

If applicable, explain the intended purpose or function of the model. For example, if it's a bridge, discuss its potential use, or if it's a building, mention its purpose in a hypothetical scenario.

❖ **Design Concept:**

Describe the overall design concept and inspiration behind the model

❖ **Future Improvements:**

Discuss any potential improvements or modifications that could enhance the model if given more time or resources. This shows a forward-thinking approach to design.

❖ **Challenges Overcome:**

Share any challenges faced during the construction process and explain how they were overcome. Discussing problem-solving strategies can demonstrate the participant's creativity and adaptability.

- The model will be **tested on shaking machine** to ensure **their strength and stability** and the participant whose **model falls last** and **explained well** will be the winner.

**Prizes:**

- **1st Position: Prizes Worth ₹5000**
- **2nd Position: Prizes Worth ₹3000**
- **3rd Position: Prizes Worth ₹2000**

**Registration Fees: ₹49 per participant**

🏆 Gear up for a design escapade like never before! The Bridge Design Blitz is where dreams take shape, and engineering prowess gets a standing ovation. Don't just build bridges; build your legacy. Join us and engineer the extraordinary ***at Shilp, the annual fest of the Civil Engineering Department, IIT (BHU).***

