

# CAD NIGHT

## 1. Introduction

If you can think it, you can make it, you're only limited by your imagination! Designing a project is as important as executing it, and is considered as the vital step to any project. The art of designing things is a gift, a gift known to a very few people of the society. Are you one of those? Why wait then, we've got you covered. We are organizing a CAD Night for all of you design nerds waiting for the correct opportunity to showcase your talent.

## 2. Prizes

Prizes worth **35,000 INR**.

1st Prize - **20,000 INR**

2nd Prize - **10,000 INR**

3rd Prize - **5,000 INR**

## 3. Problem Statement:

**Design a scalable and multipurpose table for students which for a given dimension can adjust maximum things keeping the comfort of the user and weight of the table a priority.**

**Dimensions of the table:** The maximum dimension of the table should be 35 inches x 24 inches x 48 inches (height x width x length). The height of the table can be made adjustable going to a maximum of 35 inches. Width and length should not be changed.

**Material:** The primary material of the table should be Cherry Wood (Density  $900 \text{ kg/m}^3$ ). While the accessories of the table can be made of different and light, but strong enough material. The density of primary material should be the same as given because one of the criteria of judging is the weight of the table. In general, your table design should be able to adjust the maximum amount of things in a given space. Should be flexible for usage i.e should have enough mechanisms for folding and extending.

# CAD NIGHT

The mechanisms should be simple, easy to use, and practical i.e. your design should be feasible for manufacturing. The cost and weight of the table should be kept as constraints as they are one of the parameters for judging your design.

## 4. Event Details

Team Size: **1-2 Members.**

Preferred Software: AutoCAD, Catia, SolidWorks, Altair-HyperMesh.

**It will be a single round 48hr Competition.**

## 5. Submissions:

**File type:** .iges or .sldprt or .sldasm (in case of assembly). Organisers should be able to open this file on their end on **Solidworks.**

**Video Presentation:** Explanation of design solution. (max - 8 mins)

Submission of youtube link or drive folder link.

Things to be included in presentation:

- Explanation of problem and solution.
- Proposed uniqueness in design.
- Comparison of your design with existing design.
- Applicability of design and its effectiveness.
- Good Isometric photographs of your design.

**Submission File format :** Zip folder or Drive folder containing:

- Your design files.
- Document which contains the youtube link or drive link of video presentation

# CAD NIGHT

**Remark: Do not forget to provide access in case of drive folder. Plagiarism policies will be strictly followed.**

## 6. Eligibility

Any student from a recognized institute/college can participate in this event.

## 7. Judging Criterion

- Uniqueness of solution - 35%
- Applicability of solution - 35%
- Cost and Weight effectiveness - 15%
- Video Presentation - 15%

**Remark: All decisions taken by the organizing team will be deemed as final, and no more changes will be encouraged, thus holding the full authority to change any of the above rules as per circumstances.**

RESOURCES :

<http://www.digitaltutors.com/software/AutoCAD-tutorials>

[www.proetutorials.com/](http://www.proetutorials.com/)

<https://catiatutor.com/>

[http://www.catia.com.pl/tutorial/part\\_design.pdf](http://www.catia.com.pl/tutorial/part_design.pdf)

<http://catia5v6videotutorials.caddsoftsolutions.com/2011/10/catia-v5-basics-getting-started.html>

<http://www.cgonlinetutorials.com/tutorials/catia-tutorials.html>

[www.solidworkstutorials.com/](http://www.solidworkstutorials.com/)

<https://www.youtube.com/user/solidworks>