# Event: CAD Combat

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## Description

CAD (computer-aided design) is the use of computer-based software to aid in design processes. CAD software is frequently used by different types of engineers and designers. CAD software can be used to create two-dimensional (2-D) drawings or three-dimensional (3-D) models. Students will be required to exhibit their skills of 3-D drafting & assembling.

## General Rules

1. Only individual participation no group will be allowed.
2. Participants must register before the competition.
3. Students must be pursing his/her diploma or degree engineering and having expertise in AutoCAD and CREO Parametric 1.0 or NX Student Version.
4. Participants must carry his/her college i-card (proof of pursuing) during the entry in competition area.
5. No external references, calculators, or additional software are allowed.
6. Any form of cheating or plagiarism will result in disqualification.
7. All submissions will be reviewed by a panel of judges with expertise in CAD software and technical drawing and that will be final without any excuses.
8. Certificate will be awarded to only elite and veteran level participants.
9. The decision taken by the Institute and Event coordinators/ Judges will be considered as final.
10. Reporting time will be 8:30 AM on the day of Event.

## Round 1: Elimination Round

**Orthographic to Isometric Sketching**

- **Objective:** Convert given orthographic views into an isometric view by sketching.
- **Materials Allowed:** To bring along with the necessary drawing instruments like Pencils, Erasers, Rulers, protractor, rounder, etc.
- **Duration:** 40 minutes.
- **Submission:** Submit your sketches on the provided paper with your name and roll number written on it.

**Evaluation Criteria:**

- ✓ Accuracy of the isometric view.
- ✓ Clarity and neatness of the sketch.

The Top 30 Participants will be eligible for the next elite level.

# Round 2: AutoCAD Drafting with GD&T

- **Objective:** Create a detailed technical drawing using AutoCAD and provide GD&T (Geometric Dimensioning and Tolerancing) in drawing where it necessary.
- **Materials Allowed:** Personal computer with AutoCAD installed.
- **Duration:** 60 minutes.
- **Submission:** Submit the AutoCAD file (.dwg format) and a PDF of the drawing in a suitable A4 size page layout.

**Evaluation Criteria:**

- ✓ Correct application of GD&T symbols.
- ✓ Accuracy and precision of the drafting.
- ✓ Quality of annotations and overall presentation.

Top 20 Participants will be eligible for next veteran level.

# Round 3: Creo Modeling and Assembly

- **Objective:** Create 3D models and assemble them in Creo or NX Student Version.
- **Materials Allowed:** Personal computer with Creo or NX Student Version installed.
- **Duration:** 1.5 hours.
- **Submission:** Submit the Creo model files (.prt, .asm) and a PDF of the final assembly drawing.

**Evaluation Criteria:**

- ✓ Accuracy of the 3D models and assembly.
- ✓ Proper use of Creo features and tools.
- ✓ Quality and clarity of the final assembly drawing.

Top 3 Participants will be winners and awarded as per university's norms.

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