TECHFEST

Techfest is a festival of technology. It is a platform for techies to showcase their skills through interesting events. This year **Choithram School** brings you exciting events for the talented to showcase their talents and win what they deserve.

Trace to Base

The CAD competition challenges participants to apply their skills in **computer-aided design (CAD)**, which is widely used in engineering and architecture to create precise models. This competition is designed to be easy, simple, and fun for everyone! Whether you're a beginner or an expert, you'll find that the tasks are approachable and enjoyable. Competitors begin in paired matches, tasked with recreating a 3D model from an image using CAD software. Winners advance to subsequent rounds, with the final two participants modelling a physical object, and the most accurate **3D model** determines the champion.

Event Overview:
• Venue: School Language Lab.
• Participation in Teams of 2 members.
• Software: Onshape (https://www.onshape.com/en/)

Eligibility:
• Students from Grades 6-12.
• Basic knowledge of CAD software (Onshape) is required.

Event Format:
• **Initial Round:**
     In this Round, participants are paired up and compete against each other. Each participant is given a 2D image of an object and tasked with recreating it as a 3D model using Onshape. The key criteria for evaluation are accuracy and attention to detail. The winner of each pair advances to the next round.

- **Advance Rounds:**

    In these Rounds, winners from the initial round face off in pairs once again. Each participant is provided with a new image of an object, which they must recreate in 3D. The objects in this round may be more complex to test participants' advanced modelling skills. The key criteria for evaluation are accuracy and attention to detail. These criteria determine the winner of each pair and advance to the next stage, progressively reducing the pool of competitors for the final round.

- **Final Round:**

    In the Final Round, the finalists will compete head-to-head in a showdown to determine the overall winner. Instead of working from an image, they are provided with a physical object that they must carefully analyse and recreate as a digital model using OnShape. Vernier callipers will be provided for participants to measure the object and hence create with accuracy. The final models are judged on multiple factors, including accuracy, level of detail, and effective use of CAD tools. Precision in translating the physical form into a digital space will be key. The participant who creates the most accurate and well-executed 3D model will be crowned the winner of the competition.

    - **Rules & Regulations**
- Each participant/team must use only the designated CAD software.
- No external references (internet, books) allowed.
- Designs must be submitted within the given time frame.
- Late submissions will not be accepted.
- External plugins/automation tools are prohibited.
- Cheating or plagiarism will result in disqualification.
- Internet access will be provided.
- Participants are not allowed to use their own devices for designing, they will have to use the PCs provided by us.

The school will provide:
- Physical objects for the final round.

• PCs with the necessary CAD software.
• Vernier calliper will be provided for the final round.

Judging Criteria:
Technical Accuracy and Speed of Modelling

Sample for Round 1 & 2:
(https://drive.google.com/drive/folders/1iIS6EzEr_1DyCZL1Lgv6prJEiTQCmIUW?usp=drive_link)