

# **CAD WAR**

## **DESCRIPTION:**

### **“IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE”**

World of designing is running more than the speed of light. Now it's time to express your imagination power. Here “CAD WAR” is challenging your designing brilliance. Now the battle has begun so challenge your mind. If you are mad for cad so, get armed up with all your design weapons and tricks in this war of designing.

## **RULES AND REGULATIONS**

- Student must carry a valid college ID card.
- Participant should not use any electronic accessories inside a venue hall.
- Three hours will be allotted for the selected candidate in order to complete their designs.
- Flow of event
  - ROUND 1: Selection round for 15 minutes (20 objective type questions)
  - ROUND 2: Design a given 2D model in to 3D model by using AUTOCAD.
- Maximum 2 participants per team.
- Model will be given at the time of competition.
- The final result will be judged on the basis of completeness and optimum time.
- Top 3 team will be awarded with handsome prize and merit certificate.
- For any clarification or further details, the interested candidate can conduct the event organizer.

## **LINE FOLLOWER**

**“Technology and robotics are advancing and will reduce the need for workers in the future” - Jan C. Ting**

### **Description:**

The Line follower robot is a mobile machine that can detect and follow the line drawn on the floor. Generally, the path is predefined and can be visible like a black line on a white surface with a high contrasted colour. Participants should have to complete the paths as per rules and regulation. Event is divided in three rounds. Participants who completed each round in less time will be declared as a winner.

### **General rules (Line Follower)**

- The maximum dimension of the bot should be 25cm x 25cm x 25cm.
- The weight should not exceed 4kg.
- Readymade IR sensors and handmade IR sensors can be used for line followers. Also the sensor array modules can be used.
- Bot will be eliminated if they do not start tracing the line within 20 seconds after deviating from path.
- Both the readymade chassis and the handmade chassis can be used for competition.
- For the readymade bots two warnings will be provided and in case of handmade bots three warnings will be provided.
- If a bot is manually touched in between the competition, then it will be considered as a violation and lead to penalty/disqualification.
- Change of batteries and modifications to code are allowed but the game play has to be restarted.
- The organizers reserve the right to change any or all of the rules as they deem fit. Changes in rules, if any, will be highlighted on the website.
- Judges decision will be final and further arguments with judges will be penalized.

## **Paper Presentation**

**“The true sign of intelligence is not knowledge but imagination”-  
Albert Einstein**

### **Description:**

Paper Presentation is all about how you put your topic or present your topic in front of the audience. They see the way you present your topic, the way you put your points, your presentation style, your language and how promptly and effectively you answer their questions.

Like if you have to present the paper on "Robotics". Here first thing is that you have collect the information from the source you would like to. It can be the internet or some books, journals, newspaper, magazine etc.

### **Rules and Regulations:**

- Candidates should send their paper in soft copy to our mail id and also 2 hard copies with the CD to the address mentioned on or before proper date.
- Spot entries are not allowed.
- Accepted papers will be intimated through their respective mail id
- The topic maybe in any area relevant to robotics/mechatronics.
- The presentation time is for 8 mins and queries for 2 mins for each paper.
- Selected candidates should bring their identity card at the time of presentation.
- The organizers reserve the right to change any or all of the rules as they deem fit. Changes in rules, if any, will be announced on the time of event.
- Selected candidates should bring two hard copies and one soft copy of the paper at the time of presentation (MS Office 2003, 2007 format).
- Only LED projectors will be provided.
- Two copies of abstract, not exceeding 300 words.

## **ROBO SOCCER**

**"If it doesn't matter who WINS or loses, then why do they keep SCORE."--  
Vince Lombardi, Green Bay Packers**

### **DESCRIPTION:**

All those fans of MESSI and RONALDO out there, tired of brawling? Time to stop talking and start acting. Paint your faces, boot-up your bots, set them in the soccer field and scream VISCA BARCA / HALA MADRID !! \*grabs popcorn\* The Robo Soccer is a team based competition. You must create a robot that can play soccer/football/whatever you call it. Your team will compete against another team's robot. There must be no human intervention during the match

### **RULES AND REGULATIONS:**

- The robot should fit inside a box of 30cm\*30cm\*30cm.
- Robot should not exceed 6 kg.
- The robot can be only wireless. Participants should have two band widths for the wireless controls.
- The robot should be self-powered with supply not exceeding 12V (on board power supply).
- Power supply (only DC) should be on board. Participants cannot draw power from outside source.
- Only one participant should control the robot no player can be exchanged in the match.
- Team can have maximum number of three members.
- A robot can push or hit the ball. It cannot have any kick mechanism or grab the ball.
- Human interference (e.g. touching the robot) during the game is not allowed.
- Decision of the Judges and Event Organizers shall be treated as final.

- AC power supply will be provided at the sight of play for charging purpose only.
- Event organiser reserve the right to ask for the explanation of the robot specifications.
- The organizers reserve the right to change any or all of the rules as they deem fit. Changes in rules, if any, will be announced on the time of event.
- Positions of balls and obstacles in the arena will be decided by the organizers on the particular day of event.

## **ROBO WAR**

**“Nobody gets lucky all the time. Nobody can win all the time. Nobody's a robot. Nobody's perfect - Johnny Weir**

### **Description**

The challenge is to create a robot (manually controlled / autonomous) whose sole purpose is to push, throw, flip, drag, or otherwise move your opponent out of the arena within a stipulated time. This event aims to test your Robot against another in a field of combat where brute strength and cat-like reflexes hold the key to success. Who can participate Team must comprise of 1-4.

### **General Rules**

- The competition will be played on a knock-out basis.
- The bot will be inspected for safety before the event begins. If found to be unsafe for the participants/spectators, it will be discarded.
- The organizers reserve the right to change any or all of the rules as they deem fit. Changes in rules, if any, will be announced on the time of event.
- Violation of any of the rules will result in immediate disqualification.
- The maximum time limit for the clash of combatants inside the arena is 10 minutes.  
(4 minutes round1-2minute break - 4minute round 2)
- A bot will be declared immobile (out) if it cannot exhibit linear motion of at least one inch within 30 seconds. A bot with one side of its drive train disabled will not be counted out if it can demonstrate some degree of controlled movement.
- It includes both offence and defense.
- Readymade kits and development boards are allowed.
- A Bot should be wireless, and advised to have two frequencies to operate for wireless bots.
- Teams that are not ready when called for battle will be considered to have declared a walkover, and will receive no points.
- The bot cannot be split into two sub-units. And the battery should be in the robot.
- Damaging the arena will lead to immediate disqualification.
- In all cases, the judges' decision will be final and binding.

## **Technical Quiz**

**"If it doesn't matter who WINS or loses, then why do they keep SCORE."--  
Vince Lombardi, Green Bay Packers**

### **Description:**

Quiz team competition is a pursuit of trivial Knowledge, encourage students to achieve academic excellence and Increase their awareness of the world around them. It actually tests student's retention and accumulation of knowledge in a real life situation. Encourage independent study and academic excellence. Recognize and appreciate non-traditional values for competition. Build self-esteem and pride.

### **Rules and regulation:**

- Participants should form a group of minimum two or maximum three students.
- Participants must carry a valid identity card of their respective institutions.
- The organizers reserve the right to change any or all of the rules as they deem fit. Changes in rules, if any, will be announced on the time of event.
- Questions will be asked from the basics of all engineering disciplines, daily life science phenomenon, on the basis of practical applications, current affairs in science and technology.
- After Prelims, only 10 top scoring teams will be selected for next rounds.
- After Rapid Fire round only 6 teams will be selected for Final round.
- 1st, 2nd and 3rd place holders will be awarded after Final round with cash prizes and certificates.