

KJ's Educational Institute's Pune

**KJ's Youth Fest 2K23**

7<sup>th</sup> National Level Technical Expo  
**GRAVITY 2K23**

*Technical Events Rule Book*

## **General Guidelines:**

- A Maximum of 4 members / team can register for any technical event.
- Registration charges of Rs.100/group for non-KJEI students and Rs. 50/group for KJEI students.
- Each registered group will get a certificate for participation.
- For extra certificate, if any, Rs. 50/- will be charged.
- Physical presence of faculty guide is welcome and will be appreciated but a certificate can be issued to him, only with fee of Rs 50.
- All participating students need to carry their college IDs for verification and confirmation.
- Judges decision will be final and binding to all.
- All required basic infrastructural facilities like working space, electricity, water, tables, etc., will be made available by the host institution.
- All winning teams will be informed about their selection on the same day.
- Registration can be done through online (<https://forms.gle/NVx64CGmWbDc6Pi6A> ) or offline (on registration desk) mode.
- Payment can be done through online/ offline mode.
- All rights to make changes in rules are only reserved with the organizer.

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## **1. Event Name: Lathe War**

### **Objective:**

Lathe War is the lathe job competition which demands manufacturing Techniques with higher dimensional accuracy and manufacturing skills to the higher surface finish. The job is the depiction of the participants' skills and knowledge.

### **Rules:**

- a) If any damage to tool, lathe m/c, surrounding etc, or any malpractices including negligence during machining will lead to disqualification.
- b) Fine will be TAKEN if any MAJOR damages to Tool, Lathe Machine or Surroundings occur during Operation.
- c) After the completion of the task all the accessories must be returned.
- d) No extra work piece will be provided and carrying of any extra material is banned.
- e) Judges decision will be final, binding to all and irrevocable.
- f) Participant is responsible for their own safety.
- g) They should Compulsory have apron, tool (H.S.S) and shoes.
- h) The winner will be decided on the basis of accuracy, Surface finish and time duration.

## **2. Event Name: CAD WAR (Mechanical Engineering)**

“Imagination is more important than knowledge”

### **Description:**

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.

### **Flow of Event:**

**Round 1:** Quiz round for 20 minute from which shortlisted candidate will qualify for the next round.

**Round 2:** Designing the component followed by solid modelling, assembly modelling or surface modelling within a constraint time limit.

### **Rules and Regulation:**

1. Maximum 2 participant per team.
2. The team has to choose one CAD software i.e. CATIA (V5), CRIO2.0, SOLIDWORKS (204) and participants have to carry their own laptops along with installed CAD software.
3. Model will be given at the time of competition.
4. Use of Internet or any electronic gadget is restricted.
5. Participants must carry their valid college ID card.
6. The decision of the committee will be final this will be judged on the basis of completeness and optimum time.
7. The Coordinator of event reserves the right to modify the contest rules without any prior notice.
8. Top 2 teams will be awarded with attractive prizes apart from the certificates.
9. For any clarifications or further details the interested candidates can contact the faculty coordinators.

### **3. Event Name: CAD WAR (Civil Engineering)**

**Objective:** It's the world of designer to create 2D plan. The time is marking off quickly. Gear up with all your designing skills and fundamentals, in this race of survival. It is precisely an aesthetic way to bridge the gap between technological expectations and engineering brilliance.

So if you have a golden touch that can bring a life 2D sketch, here is opportunity for you. Let the ambience glow with your designing brilliance.

Who will get the crown as CAD WARRIOR? The battle has begun and lethal weapons are strained out. Challenge your brain by using designing potential.

#### **Flow of competition:**

- **SOFTWARES USED:**

1. **AUTO-CAD**

There will be 1 round as follows:

- **Round-I:**

**AUTOCAD:** In this round, the participants have to create 2D plan and draft details of given problem.

#### **RULES:**

1. Individual participant.
2. Time for drawing of model will be decided and declared on the spot as per difficulty and will be same for same software.
3. Judge decision will be final decision and binding to all.
4. The coordinator of event reserves the right to modify the contest rules without any prior notice.
5. Certificate will be given to each participants.

#### **Judging Criteria:**

- Completion of model with perfection.
- Time taken for completion of each round.
- Detailing.
- Features used/ parametric representation.
- Presentation.

## **4. Event Name: App Development Event**

### **Theme of the Projects**

1. Innovations in Engineering
2. Social Relevance
3. State- of-the Art Design
4. Technology and Application
5. Uniqueness and Novelty
6. Green Initiatives

### **General Rules:**

1. Only students who registered for app development event are eligible to participate.
2. It is a team event and each team comprises of 3 to 4 members.
3. Each team has to display their project (live/running) along with one poster (A3 Size) of their respective project.
4. The project must be in proper functioning, well packaged.
5. The competition is open to all students including Diploma.
6. A team member can participate only in one project presentation.
7. Plagiarism is strictly prohibited, although referring to open source projects is permitted.
8. First Prize & run up will be decided as per the project quality.

## **5. Event Name: Coding Competition (Computer Engineering)**

*Warning: These are still provisional and may be subject to slight change!*

### **1. Programming Round**

#### **1.1 General**

- The contest will be held on 2<sup>nd</sup> March, 2023 in the Computer Laboratory on the 4th floor of the Information Technology Building, TCOER, Pune. Contestants should meet at 10:00 am for a brief introductory talk. The contest proper will begin at 10.00 am - and end at 13.00 pm.
- Individuals are allowed to compete in the competition. All contestants are required to present a valid student identification card.
- Contestants cannot bring any notes or textbooks to the contest room. Blank sheets of paper and pencils will be supplied.
- Contestants can't discuss the problems they are assigned with their co-contestants.
- Referees will be assigned to observe throughout the contest and report any problems and/or violations of the rules to the Contest Committee.

#### **1.2. Programming Environment**

- Each team will be allowed to use only a single computer and must write and test their programs on that machine.
- PC compatible computers running Windows/ Ubuntu will be used. As per Contest Committee's discretion, contestants are not allowed to use their own computer/ laptop's in the contest.
- Contestants may write their programs in whichever language they prefer. The following programming languages will be available. (a) Borland C++, (b) Python, (c) Microsoft Visual C++, (d) Java Development Kit.
- At the Contest Committee's discretion, contestants are not allowed to bring/use their own compiler (or interpreter) in the contest.



- Contestants may submit only a single solution to each problem. Both the source code and the executable program for each problem, must be included on the disk. Once submitted they may not be changed!
- Contestants may not seek hints and/or ask for leads during the contest. They may, however, submit questions about procedure and/or clarification, in writing, to the Contest Committee who will ensure that all individuals receive the same information as deemed necessary.

### **1.3. Evaluation of Contestants' Programs**

- All contestants will be given the same set of problems to solve with some specified time limit.
- There will be three rounds (based on number of participants) conducted with first round to be completed by contestants within (5 min) time, second round to be completed by contestants within (10 min) time, and third round to be completed by contestants within (15 min) time.
- Each problem will have a specified point value. The more difficult the problem, the more points a correct solution will receive.
- Programs will be tested by judges (appointed by the Contest Committee) by running them with a set of test inputs. The output for each test case will be marked as right or wrong using keys prepared before the contest.
- A program will be considered wrong if it fails to work on one or more of the test cases. It will otherwise be considered correct for the purposes of this contest. {A program may still be wrong even if it passes all the test input cases. Every effort will be made to design test cases that will minimize the chance of missing an incorrect program.} A correct program will be awarded the full points, an incorrect one zero! In the event of a tie, programs will be awarded partial credits based on the number of tests correctly passed.

## **6. Event Name: Game Zone (Computer/IT Engineering)**

### **Event- A:\*\*NEED FOR SPEED \*\***

#### **Version – Most Wanted.**

##### **Stage 1- Qualifier**

- Four players will compete to come first.

##### **Round-1**

- Race Mode – Circuit.
- Region – City.
- Map–City Perimeter
- Cars – Mitsubishi Lanser(EVOLUTION VIII),Porsche Caymans, Subaru Impreza WRX STI, Mazda RX-7.

##### **Round-2**

- Race Mode – Circuit.
- Region – Coastal.
- Map – Omega & Industries.
- Cars – Porsche 911 Carrera S, Lotus Elise, Aston Martin DB9, Dodge Viper SRT10, Porsche 911 Turbo S.

##### **Round-3**

- Race Mode – Circuit.
- Region – College.
- Map – Clubhouse.
- Cars – Corvetle C6, Lamborghini Murcielago.

##### **Stage 2- Semi-Final**

##### **Round-1**

- Race Mode – Sprint.
- Maps – Stadium & chase or Diamond valley.
- Cars – Mitsubishi Lanser(EVOLUTION VIII),Porsche Caymans, Subaru Impreza WRX STI, Mazda RX-7.

##### **Round-2**

- Race Mode – Sprint.
- Maps – Ironhouse& coast or Camden & route.
- Cars – Porsche 911 Carrera S, Lotus Elise, Aston Martin DB9, Dodge Viper SRT10, Porsche 911 Turbo S.

##### **Round-3**

- Race Mode – Sprint.
- Maps – State & warrant & Lyons & state.
- Cars – Corvetle C6, Lamborghini Murcielago.

##### **Stage 3- Final**

- Hardest Map reviled on competition day.
- Fastest car reviled on competition day.

**Note: -**

- Rules can be change depending on Registration.
- Competition timings and other changes will be informing to the respective teams.
- Players are expected to bring their own earphones/headphones.

**Event-B: \*\* COUNTER STRIKE TOURNAMENT\*\***

**1 Team = 4 members**

**Game version - 1.6**

**Stage 1- First Round**

1. Four players a side.
2. 1 team vs 1 team battle.
3. Time limit 3 min per battle.
4. Three battle in this round and winner of three battle or best of three will sent to next round.
5. Map – dust2, inferno.
6. Start money 800.
7. Buying time 20 sec.

**Stage 2- Semi-Final**

1. Four players a side.
2. 1 team vs 1 team battle.
3. Time limit 2 min per battle.
4. Three battle in this round and winner of three battle or best of three will sent to next round.
5. Maps will be decided at the time of competition.
6. Start money 800.
7. Buying time 20 sec.

**Stage 3- Final**

1. Maps will be decided at the time of competition.
2. Battle will face by using **pistols** only.
3. Best of three will be winner.
4. Time limit 1.75 min.
5. Start money 0
6. Buying time 0 sec.

**Note: -**

- Rules can be change depending on Registration.
- Competition timings and other changes will be informing to the respective teams.
- Opening console at the time of playing is prohibited, server will have kicked out to that player from that respective battle.
- Sniping weapons (i.e. magnum sniper rifle, etc.) are prohibited.
- Players are expected to bring their own earphones/headphones.

## **7. Event Name: TREASURE HUNT (Electrical Engineering)**

“A game in which players search for hidden objects by following a trail of clues”

### **How to play treasure Hunt**

- Treasure Hunt can be played as teams competing for time. It is fun to play either inside or out. The goal of the game is to lead the seekers through a set of clues that takes them from place to place to find a treasure. The “seekers” need to read each clue they find and figure out the next location.

### **Rules**

1. Maximum 4 members in each team are allowed.
2. Each team has to announce a leader at the time of registration.
3. Each team will be allotted a particular Number. And all the clues for the team will be get once after solving every clue
4. Wallets, mobile phones and all the other device of communication or IT devices will be taken away from the participants. You must rely on your team members only.
5. There is a time limit of 45min. for all the competing teams to find the treasure.
6. The clues are to be found in a particular order. A team cannot skip a clue. Skipping a clue leads to disqualification of the team.
7. An entire team must stay together. It cannot split up to find different clues. If a team splits, it will be penalized by a point penalty and after 3 penalty points, team will be disqualified.
8. All the means used by the teams should be fair, in case of any violation of the rules or any use of unfair means, teams will be disqualified from the contest.
9. The Treasure Hunt consists of clues, each one leading to the next clue. Each correctly solved clue carries 10 points. And final Treasure carries 50 points.
10. All the clues of the teams are at different and located at different places but the final destination i.e. the treasure is same. The team which finds the treasure first wins.

## **8. Event Name: Quick Circuit Making and Decoding Event (Electrical Engineering)**

1. For the circuit designing there will be maximum of three members in the team
2. Maximum time allotted for making the circuit will be 20 minutes.
3. A team should verify that the circuit is working before declaring its completion.
4. Once a team declares they have completed the task but the desired results did not occur, then such team will be disqualified.
5. The team who is fastest in connecting the circuit with desired result will have additional advantage in final marking.
6. Circuit components will be provided by the department based on type of circuit.
7. Participants have to design circuit diagram and make necessary connections.
8. All winning teams will be declared on the same day.
9. The decision of Juries will be final and binding to all participants.

## **9. Event Name: Circuit Simulation and Design (E&TC Engineering)**

1. Every Participants will get one circuit Diagram
2. Every Participants Will Get one and half Hour time
3. Every Participants need to simulate Given Circuit and get the correct output
4. One who complete within given time with correct output is the winner
5. In case of More number of winners those who completes Fastest with correct output is the Winner
6. There will be First Three winners.

## **10.Event Name: Circuit Sketch and Logic Decoding (E&TC Engineering)**

1. For the Circuit Sketch, there will be maximum of two members in the team
2. Maximum time allotted for making the circuit will be 20 minutes.
3. A team should verify that the circuit is working before declaring its completion.
4. Once a team declares they have completed the task, they cannot claim to modify the circuit sketch.
5. The team who is fastest in sketching the circuit will be declared as Winner & Runner-Up.
6. All materials will be provided by the department.
7. All winning teams will be declared on the same day.
8. The decision of Juries will be final and binding to all participants.



## 11.Event Name: Pharma Tech Expo

### Categories:

- A. Poster Presentation: Topic Artificial Intelligence in Health care system
- B. Model Making (Pharmaceutical Science related model)
- C. Pharmaceutical Herbal Formulations: Creams, Gels, Powders, Hair tonics etc.

1. Maximum no. of participants per team should not be more than four. (registration fees for each participant is 50/-)
2. Contestants are expected to display their **Posters** on a flex of (**1x 1 M**) size before a panel of judges appointed for the purpose (mandatory size of poster 1m x 1m).
3. The poster/Models should be self-explanatory.
4. The text should be neat, Use of Tables / Graphs / Images / Smart Art is Preferable.
5. The main heads in posters may include Introduction, Aim, Method, Results, Conclusion and Acknowledgement.
6. Participants should carry necessary requirements along with them on the day of the event. (e.g laptop, pendrive, pen, marker, etc)
7. Good design & easy navigation will be the merit criteria.
8. For Pharmaceutical formulations, students are requested to get prepared formulations with all necessary details associated with the same such as ingredient details, evaluation parameters, analysis report etc.
9. Judges' decision will be final and binding to all.
10. All winning teams will be informed about their selection on the same day.
11. All rights to make changes in rules are only reserved with the organizer.

## **12.Name of Event: 2D to 3D Competition**

1. The Competition will be held individually.
2. Orthographic Drawing will be provided to each participant; participant has to draw Isometric View of the same.
3. Participant has to bring their own drawing instruments, only drawing sheet will be provided.
4. Time duration of the competition will be **30 minutes**.
5. Juries' Decision will be final and argument with Juries' tends to disqualification.
6. All rights to make changes in rules and regulations are reserved by organizer.

### **13.Event Name:Technical Quiz**

1. ID card is Mandatory.
2. Only team entries are eligible.
3. A team consists of three students.
4. The decision of the quiz-master will be final and will not be subjected to any change.
5. The participants shall not be allowed to use mobile or other electronic instruments.
6. The questions shall be in the form of multiple choice, True/false statement, specific answer questions, and visuals etc.
7. Audience / Supporters shall not give any hints or clues to the competitors.
8. Replacement of any participant of a team is not allowed after registration.
9. There will be four rounds in the competition and rules will be disclosed at the time of competitions.

#### **14. Event Name: Model Making (Architecture Department)**

1. There is no size restriction for model.
2. Maximum 4 members (as a team) or individual participation is allowed and can be registered for the event.
3. The model need not be only from architectural field in nature but can pertain from any other field of science as well.
4. Brief /write up describing the model (Minimum 50 words)
5. Describing the model in terms of
  - a. Function
  - b. Location
  - c. Materials used
  - d. Model Making techniques etc
6. Name of the competitor/s & college name should not be displayed. Only Participation No. given to the students/model to be mentioned.

## **15. Event Name: Poster Expo**

- Group of maximum 4 students allowed for poster presentation.
- Participation certificate will be provided to group.
- Participants are expected to print their poster on a flex of 1m x 1m size and present before a panel of judges appointed for the purpose.