



SJCEM

PRESENTS

MEGALEIO 2020



Exploring Technology

NATIONAL LEVEL INTERCOLLEGIATE
TECHNICAL EVENTS

TECHNICAL PARTNERS



Megaleio 2020 Prize Money & Entry Fee Details							
S. R.	Event	Entry Fee	Prize Money	1st Prize	2nd Prize	3rd Prize	Pg No.
1	Robo War	₹400.00	50000	27000	17000	6000	3
2	Robo Race	₹150.00	6000	3000	2000	1000	8
3	Robo Soccer	₹150.00	6000	3000	2000	1000	11
4	Line Follower	₹150.00	6000	3000	2000	1000	16
5	Blind C	₹50.00	3000	2000	1000	nil	19
6	C Debugging	₹50.00	3000	2000	1000	nil	22
7	Web Designing	₹100.00	5000	3000	2000	nil	26
8	Code Auction	₹50.00	3000	2000	1000	nil	28
9	Bridge it	₹150.00	5000	3000	2000	nil	31
12	Building Design	₹100.00	5000	3000	1500	500	36
13	Civil War	₹100.00	5000	3000	1500	500	39
14	Mechanix	₹150.00	4000	2500	1000	500	42
15	CADecore	₹100.00	5000	3000	1500	500	46
16	Treasure Hunt	₹200.00	8000	4500	2500	1000	49
17	Paper Presentation	₹100.00	6000	3000	2000	1000	52
18	Poster Presentation	₹100.00	6000	3000	2000	1000	56
19	Quiz	₹100.00	5000	3000	1500	500	59
20	Call Of Duty	₹200.00	6000	4000	2000	nil	64
21	PUBG Squad	₹200.00	6000	4000	2000	nil	67
	PUBG Solo	₹50.00	3000	2000	1000	nil	

Robowar

1. Problem statement:

Design and construct a wireless remote controlled robot capable of fighting one on one in weight category. The robots have to fight with other robot in arena using the weapons.

2. Dimensions:

The following size limitations apply for each robot,

Width – 600mm max,

Length – 600mm max,

Height – 600mm max.

Maximum weight: 15kg(No tolerance).

The external device, which is used to control the machine, is not included in the weight constraint.

3. Controls:

The robot should be controlled using a remote controller and should be completely wireless. The combat robot should not have voltage more than 48 volt DC between any two points. (There is no limit in current requirement).

4. Mechanism:

Following mechanisms can be used:

- Cutters ,spinners
- Hammers
- Wedge

- Lifting mechanism
- Extended weapons
- Any other damaging weapon.

5. Restriction:

Following mechanisms cannot be used

- Use of inflammable liquids, projectile particles, explosives, or flame based weapons is strictly prohibited.
- Magnets must not be used in intention to harm the opponent.
- IC engines cannot be used.
- Batteries must be well protected.
- Weapons must not damage the arena.
- Any slippery material should not be used.
- Any part of machine should not be detachable.

6. Arena specifications:

- Arena is made by 16 feet x 16 feet platform at 1 feet height from ground level.
- Arena's platform will be covered by metal sheet.
- Platform will be surrounded by polycarbonate sheets for protection.
- Original arena may have some dimensional changes at the time of event.

7. Game play

1. The robot and opponent's robot will be placed in arena.

2. The robots will fight and try to score points according to the scoring rules.
3. There will be points for pinning, damaging, tackling and toppling the other robot.
4. In case of tie, there will be a tiebreaker, which will be decided by organizers.
5. The winner will be decided by more points, or if the other robot is immobile. Robot will be declared immobile if it cannot show linear motion of 5 inch in 10 seconds.
6. If robots become entangled or a crushing or gripping weapon is employed and becomes trapped within another robot, then the competitors should make the timekeeper aware, the fight should be stopped and the robots separated by the safest means.
7. Each round will be of 3 minutes.

Note - Fixture of matches will be decided on the base of registration. If more than registration of 12 team there will be a knockout base else league will be conducted. Also losing teams may have wildcard entry as odd number of teams reaches semifinals.

8. Judging criteria

1. Points will be given on the basis of aggression, damaging/pinning, control, strategy, defense.
2. Mobility of the robot after the match.
3. A robot with one side of its drive train disabled will not be considered immobilized if it can demonstrate some degree of controlled movement . This rule will also apply to an robot that becomes trapped by any part of the arena or arena hazards.

4. Final Time limits, Scoring and penalties rules will be announced on the day of event.

NOTE: Points given by the judges will be final .No argument will be tolerated, the team arguing with the judges can be disqualified.

9. Competition rules

1. Competition is open to all.
2. Participants have to carry their institute identity card along with them.
3. The organizers reserve all rights to change any of the above mentioned rules.
4. Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.(megaleio.sjcem.co.in)
5. Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest.
6. Robots or participants that cause deliberate interference with other robots or damage to the arena will be disqualified.
7. Participants are asked to take proper care that they are not damaging the arena

NOTE: please note that, no participants will be allowed to enter the arena during the entire duration of the match except during the hand touches. Participants are expected to abide by competition rules and should cooperate with organizers.

10. Safety and discipline

It is expected that all participant are disciplined and show good behavior towards other participants, judges, and coordinators. Strict actions will be taken on

participants not abiding the rules, which may also lead to disqualification of the team.

11. Team specifications:

- Maximum number of participants per team: 6(max).
- Students from different educational institutes can form a team.

12.Entry fee: 400 Rs.

13.Prize :-

1st prize :- 27000rs/-

2nd prize :- 17000rs/-

3rd prize :- 6000rs/-

14.Contact details:

Event Coordinator: Rohit Gupta – 7020746799

Event Co-Cordinator : Mansi Surti-8975545322

Himanshu Khandelwal- 8087016446

Ankit Mishra – 7888225553

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants.

ROBORACE

1. Problem Statement:

To design and build manually controlled wireless or wired robot that is able to surpass the obstacle and hurdles in its path in least time.

2. Dimensions:

The following size limitations is applicable to each participating robot,

- Width- 250mm max,
- Length- 250mm max,
- Height- No limitation,
- For wire robots length of the wire must be sufficiently long enough to cover the entire area i.e atleast 10-12 meters.
- Ground clearance- 20mm to 40mm.

3. Maximum weight:

The robot's weight should not exceed more than 3kgs.

4. Controls:

- The robot should not have voltage more than 12V dc between any two points.
- The participants will be provided with 230V, 50Hz ac supply.
- Participants will have to bring their own onboard power supply units.

5. Track specifications:

- The track width will be 300mm-400mm throughout.
- The track will consist of various types of hurdles.
- The track will consist of sharp turns.

6. Robot task:

- The robot has to begin from its start position.
- The robot has to clear all the obstacles in least time.

7. Game play:

- Design a robot either wired or wireless within the specified dimension that can be manually operated to clear the track.
- The robot that will complete the specified task in least time will be the winner.
- In the shortest period of time the racer must complete this number of laps from the starting position to the finish, without going outside the track.
- The ROBOT which will start on the START point and reach the FINISH point block by various laps and hurdles in the shortest time will be nominated as the winner.
 - One team member will hold the wire if the robot is wired

8. Judging Criteria:

- Points will be given on the basis of the least time required to complete the track.
- Handtouch will cause time penalty of +20secs.
- The decision of judges will be final.
- Final scoring and the penalties rules will be announced at the day of the event.

NOTE: Points given by judges will be final. No argument will be tolerated; the team arguing with the judges will be disqualified.

9. Competition rules:

- Competition is open to all.
- Participants will have to carry their college ID cards along with them.
- The organizers reserve all the rights to change any of the mentioned rules above.
- Changes in rule will be notified on the Megaleio website as well as to the registered participants.
- Participants who misbehave will be asked to leave the competition area and risk being disqualified from the contest.

NOTE: Please note that, no participants will be allowed to enter the arena during an ongoing match. Participants are expected to abide by the rules and should cooperate with organizers.

10. Team specifications:

- Maximum number of participants per team: 3
- Students from different institute can form a team.

11. Entry Fee: Rs 150/-

12. Contact details:

Coordinator: Shivam .R. Sharma – 9764237516.

NOTE: participants are expected to arrive on time at the day of the event. Late comers are liable to be disqualified. Certificate of the participation will be awarded to all the participants. For any queries contact the event coordinators.

ROBO-SOCCER

Problem Statement:

To build a manually controlled robot that is capable of competing one on one game of soccer . Soccer is one of a popular game. Let's make your bot to score maximum goals. The event mainly focuses on testing of mobility of robots and innovative pushing mechanism.

1. Robot Specifications:

- The following size limitations apply for each robot:
Width – 300mm max, **Length** – 300mm max, **Height** – No limitations
- The bot can be wired or wireless.
- For wired robots length of the wires must be sufficiently long to cover the entire arena (**approximately 7-8 meters**).
- The controlling wires should be bound into a single strip and long enough (preferably erected up to a certain height so that it does not entangle with the opponent's wires or robot)
- The wires must remain slack throughout the event.
- The robot should **not exceed more than 3 kgs. 10%** tolerance in weight is acceptable but beyond that the robot will be disqualified.
- The weight of the bot includes the remote control, batteries etc.

2. Controls:

- The robot should not have voltage more than 12 volt dc between any two point.

- The participants will be provided with 230 volt,50 hertz AC supply.

3. Gameplay:

- The main goal of a participating bot is to shoot the ball into the opponents goal post.
- The Ball is to be taken across the field only by pushing. It cannot be clamped or lifted in the air.
- At no point of time should the ball be covered by all sides by the participant's bot or any part of it.
- The robots may not hold the ball while moving. Dribbler mechanisms can be used; however the ball must have at least one direction for free motion.
- Shooting is allowed with any appropriate mechanism.
- The robots can use the side wall for reflecting the ball. It won't be considered as a foul.
- A participant's bot is not supposed to interact directly with the opponent's bot when it is not in possession of the ball. If one of the bot is in possession of the ball, the other can attempt to dispossess it by attacking only the ball.
- Physical interaction between the bots in this process will be tolerated if it is judged that the attacking bot went for the ball.
- If a bot is found to commit a foul (directly hitting/obstructing motion of opponent's bot), the opponent will be given a free-shot.
- In case of entangling of the wires there can be a restart , with the ball

placed at the point where it was before the entangling of the wires, upon the discretion of the referee.

- Damaging the arena in any form will lead to immediate disqualification.
- After every goal being scored the ball would be placed back in the center circle and each bot shall restart from their respective D-lines
- Even own goals are counted.
- As soon as the time elapses the time-limit of 3 minutes a match is over and the bot having maximum number of goals wins.
- In case of a tie at the end of the stipulated time, there will be extra-time. If there is a tie after extra-time, first to score wins.

4. Judging Criteria:

- Handtouch will cause penalties.
- The decision of the judges are final.
- Final scoring and the penalties rules will be announced at the day of the event.

NOTE: Points given by the judges will be final .No argument will be tolerated , the team arguing with the judges can be disqualified.

5. Competition rules:

- Competition is open to all.
- Participants have to carry their institute identity card along with them.
- **A tennis ball will be used for the game. The weight of the ball will be 55-60 gm approximately and will have a diameter of 6.5 to 6.8 cm.**

- The organizers reserve all rights to change any of the above mentioned rules.
- Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.
- Not more than 2 members from a team can control the bot at any time. One member should always manage the wires.
- Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest.
- Robots or participants that cause deliberate interference with other robots or damage to the arena will be disqualified.
- Participants are asked to take proper care that they are not damaging the arena.

NOTE: Please note that , no participants will be allowed to enter the arena during the entire duration of the match .

6. Team Specification:

- Maximum number of participants per team:3
- Students from different educational institutes can form a team.

7. Entry fee:

The entry fee per team or individual would be **Rs. 150**

8.Prize :-

1st prize :- 3000rs/-

2nd prize :- 2000rs/-

3rd prize :- 1000rs/-

9.Contact details:

Robo-Soccer Coordinator: **DHRUV SHAH – 8888928851**

Robo-Soccer Co-Coordinator 1: **JEENI PATEL – 8983469365**

Robo-Soccer Co-Coordinator 2: **JANHVI PURANIK – 7840903717**

NOTE:

1. The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified.
2. Certificate of participation will be awarded to all the participants in the form of E-Certificates. Only 1st, 2nd, 3rd place winners will receive the Certificates in the form of printed certificates.
3. For any queries contact the event coordinators.

Line follower

1. Problem statement:

Design a line following robot which is capable of following a black line over a white background.

2. Game play:

Round 1:simple track

The complexity of the track will be simple .Each team will be given 3 minutes in order to qualify for the 2nd round . Width of the line will be 3cm. The participants shall be informed in prior by the event coordinators if there is any change in the width of the line. If a robot leaves the track it will be placed back to the checkpoint it has passed. Once the bot is placed on the track, a maximum of 5 touches will be allowed to reset the bot on the right track and a penalty of 5sec per touch shall be added to the total time . The teams with the minimum time will qualify for the 2nd round.

Round 2:Complex track

The complexity of the track will be complex. Width of the line will be 3cm. The participants shall be informed in prior by the event coordinators if there is any change in the width of the line.

Once the bot is placed on the track, a maximum of 5 touches will be allowed to reset the bot on the right track and a penalty of 5sec per touch shall be added to the total time. Winner shall be the group which finishes the track in the shortest

time. In case no team manages to finish the track, then the prize shall be given to the team who completes most part of the track.

3. Judging criteria:

1. Hand touch will cause penalties.
2. The decision of the judges are final.
3. final scoring and the penalties will be announced at the day of the event.

NOTE: Points given by the judges will be final .No argument will be tolerated ,the team arguing with the judges can be disqualified.

4. Competition rules:

1. Competition is open to all.
2. Participants have to carry their institute identity card along with them.
3. The organizers reserve all rights to change any of the above mentioned rules.
4. Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.
5. Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest..

6.Participants are asked to take proper care that they are not damaging the arena.

NOTE: Please note that, no participants will be allowed to enter the arena during the entire duration of the match .

5.Team specifications:

Maximum number of participants per team:3

students from different educational institutes can form a team.

6.Entry fee: 150 Rs./per team

7.Prize :-

1st prize :- 3000rs/-

2nd prize :- 2000rs/-

3rd prize :- 1000rs/-

8.Contact details: Coordinator: Sunil Yadav :-8237165218

NOTE: The participants are expected to be present at the venue before the event commences. late comers are liable to be disqualified. certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.

BLIND C

Introduction:

It is a unique programming competition where every participant has to write the program in c language for the given problem statement by keeping the LCD screen off. This activity mainly tests your concentration, accuracy of programming skills.

1.Game play:

Round 1:

- This round comprises of coding in C language.
- Each participant will be given a problem statement and individual PC.
- Editor will be provided.
- For this round 20 minutes will be given to each participant.
- For this round there is a common problem which will display on projector.
- Participants have to write the same code in editor by keeping MONITOR OFF.
- Every participant must bring along with them their valid college I-cards.
- Participants are requested to give their correct information to avoid any inconvenience.
- Once you submit the code and your monitor is on, you can't make any changes in the code.

Round 2:

- This will be the final round.

- For this round 40 minutes will be given to each participant.
- Qualifying participants from the previous round are expected to report at the allotted time.
- For the first 15 min participants have to write the code on paper provided by coordinators.
- Next 25 min will be given to them for writing the code on system by keeping LCD screen OFF.

2. Judging criteria: Judging will be based upon correct output and less number of mistakes. The decision of the judges is final.

NOTE: Decision given by the judges will be final. No argument will be tolerated, the team arguing with the judges can be disqualified.

3. Competition rules:

- Shortlisted participants of Round I will appear for Round II for which above rules will be applicable.
- Use of Mobile phones or any electrical device is restricted.
- Rules are subjected to change.
- Decision of the coordinators and judges will be final and binding

4. Event specifications:

- Individual Event.
- The event consists of two rounds.
- The Judge's decision is final.

5. Entry fee: Rs 50/-

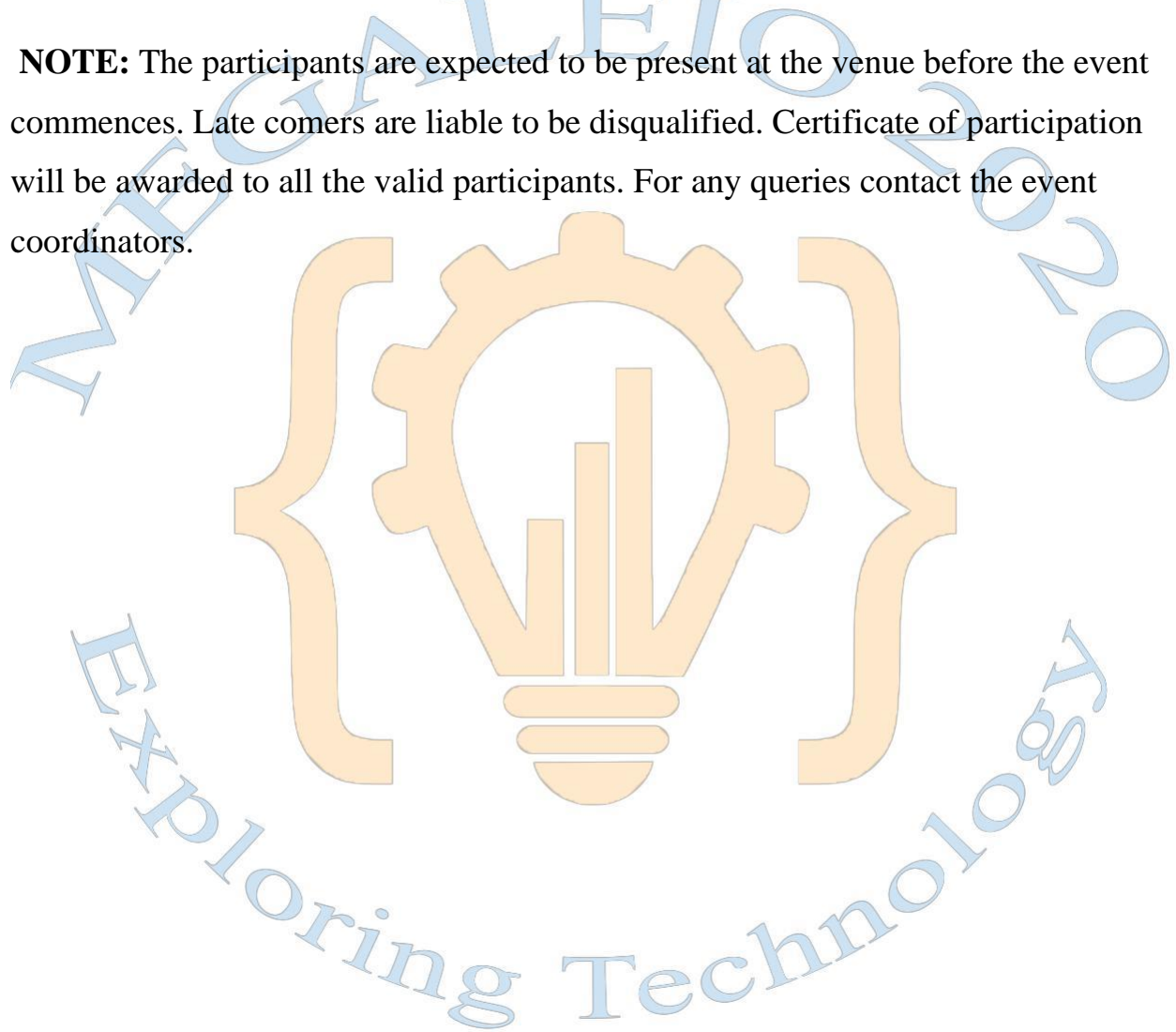
6.Prize Money:-

1st prize:- 2000rs/-

2nd prize:- 1000rs/-

7. Coordinator details: Gautami Churi-7767049855

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the valid participants. For any queries contact the event coordinators.



C - DEBUGGING

1. Problem statement:

"Debugging is twice as hard as writing the code in the first place. Therefore, if you write the code as cleverly as possible, you are, by definition, not smart enough to debug it."

C-Debugging is an offline programming event, which tests your logical, mathematical and basic programming skills. Program will be given to you, find the bugs and solve it!

2. Rounds:

Round 1: MCQs (Elimination Round) – 30 minutes

- A set of 25 questions will be given with multiple options and participant have to choose the correct option for the question.
- Questions will be both subjective as well as objective or puzzle type.
- Questions will test basic analytical, mathematical and programming skills of the participants.
- Points will be awarded for each correct answer.
- Total points will be evaluated upon the correctness of the submitted answers.
- Points of Round 1 will be added to the points obtained in Round 2 for the final evaluation.

Round 2: Debugging (Final Round) – 30 minutes

- A set of programs containing errors will be given to each participants.
- The questions will be solved in C language only.
- Points will be given on following basis :
 - Validation of code
 - Number of Errors.
 - Entering input 3-4 times by judges.
- Total Points = Total Points in Round 1 + Total Points in Round 2.
- Participants with the maximum Total Points will be declared as Winners.
- In case of tie, Round 3 (Tie-Breaker Round) will be conducted.

Round 3: Programming (Tie-Breaker Round) – 60 minutes

- Four problem statements would be given to the participants.
- The participants have to write a gcc compilable C program by finding out the correct logic from the problem statement and given sample input-output .
- Total Points = Total Points in Round 1 + Total Points in Round 2 + Total Points in Round 3.
- Points will be awarded for solving each question as per given input and output pattern.
- Participant's code will be evaluated depending upon the correctness of the code, time complexity and space complexity.

- Participants with the maximum Total Points will be declared as Winners.

3. Competition rules:

- Competition is open to all.
- Participants have to carry their institute identity card along with them.
- Report 15 minute prior to the given venue before the competition starts.
- Participant must use C programming language.
- Cell Phone are prohibited.
- Change in the rule ,if any, will be notified to registered participants and will be updated on the Megaleio website.
- In case, of breaking of rule. Participant will be disqualified. Certificate will not be provided to such participants.
- Do not discuss any strategy or logic of the program during a live contest.
- All Participants are expected to abide by the rules & regulations of the contest.
- Any Violation of the Rules & Regulations shall lead to the cancellation of the candidate from the competition.
- In case of any conflict, the decision of jury panel will be final and binding.

4. Team specifications: Single entry rs 50.

5.Prize Money:-

1st prize:- 2000rs/-

2nd prize:- 1000rs/-

6. **Coordinator details:** Darsh Patel – +91 72196 76535

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the valid participants. For any queries contact the event coordinators.



WEB DESIGNING

Problem statement:-

To design an interactive website using HTML / CSS.

GAME PLAY:-

1. Design an interactive website using HTML and CSS.
2. Participants have to build their website in limited time.
3. Participants can participate individually or form a group of 3
4. There must be at least 3 webpages linked with each other.
4. Copying other participant's idea will not be entertained.
5. Participants should be able to present their website to the respective judges.

RULES:-

1. Competition is open to all.
2. The participants can develop the website using HTML 5, CSS or Bootstrap.
3. Use of internet is allowed to search images only.
4. Website should contain Home page, About us page and a Contact us page
5. Topic will be given on the spot.
6. Use of templates is not allowed.
7. Participants have to carry their institute identity card along with them.

8. Winners will be decided by the judges.
9. Students from different educational institutes can form a team.
10. No external devices like pen drives should be taken inside the lab by participants, this may lead their team to disqualification.

ENTRY FEES :- 100Rs/per team.

Prize Money:-

1st prize:- 3000rs/-

2nd prize:- 2000rs/-

CO-ORDINATOR- Sejal Chaudhari:- +91 88067 57592.

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the valid participants. For any queries contact the event coordinators.

Code Auction

1. Problem statement:

Code Auction is a Coding Event, Problem statement will be given to you, Buy problem statements in auction with earned credits, and code it!

2. Game play:

The event will be of 3 rounds each will be an elimination round. All participants will get 100 credit points, to buy problem statement in auction in the Final Round.

- For coding Hacker Rank platform will be used. A sample problem statements will be provided to get the better understanding of the event.
- Further distribution of points will be announced during the event.

Round 1:

- This Round will be a Time Based Round.
- A simple code will be given to the participants and they will need to code the solution as fast as possible.
- From this round Half of the participants will go into the Next Round.

Round 2:

- A slightly tougher code will be Given in this round.
- Participants will be given 2 problem statements.
- Based on the Code completion and number of Test cases are passed in both the problem statements.
- Half of the participants from this round will go into the Next Round.

Round 3:

- This is the final Round of the event.
- Here, we will conduct the auction of Problem Statements.
- Two problem statements will be given to participants.
- One problem statement will be compulsory to all the participants of the final round.
- Auction will be conducted for 2nd problem statement, participant needs to buy the problem statement from the credits they have earned.

3.Judging criteria:

Marks will be given on following basis :

- Successful completion of the problem statement.
- Number of test cases passed and errors in the code.
- Time taken to code the solution for each code throughout the event and code readability will be consider as a second factor for judging in case of any tie.

4.Competition rules:

- Competition is open to any B.E / B.Tech, Diploma, Bsc candidate across the nation.
- Participants have to carry their institute identity card and acknowledge slip of registration along with them.
- Report 15 minute prior the competition starts.

- Cell Phone and cheats are prohibited.
- Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.
- Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest.
- In case, of breaking of rule. Participant will be disqualified. Certificate will not be provided to such participants.
- The organizers reserve all rights to change any of the above mentioned rules.

5. Team specifications: Solo.

6. Entry fee: Rs.50

7.Prize Money:-

1st prize:- 2000rs/-

2nd prize:- 1000rs/-

8. Contact details: Altaf Shaikh: - 9673776984

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the valid participants. For any queries contact the event coordinators.

Bridge-it

1. Problem Statement:

Design a TRUSS BRIDGE using Popsicle sticks satisfying the stated constraints

2. Structure of Event:

Round 1: Teams should submit an abstract. The abstract will be having the one sided truss design of the model on an A3 sheet on first day within 30 min

Round 2: Preparation of model by using materials provided by the event coordinator in 4 hrs (30/01/2020)

Round 3: The structures made will be tested on the second day of the event (31/01/2020).

3. Materials:

1. Use Popsicle Sticks can have the following maximum dimensions: Length = 11 cm

Breadth = 1.2 cm

Thickness = 0.2 cm

2. Sticks can be altered physically by cutting or notching at any angle.

3. Only Fevicol can be used as adhesive, use of other adhesives may lead to disqualifications.

4. Use of threads is not allowed. As well as the use of excessive glue for the strengthening the Structure can lead to disqualification.

5. Each team will be provided with 250 popsicles sticks and 250 ml of fevicol, and extra materials will not be provided. All the accessories will be provided by event coordinator.

4. Overall Dimensions:

The Popsicle Bridge dimensions should be within the specified limits of:

Length = 56-60 cm

Width = 10-11 cm

Height = 12-16 cm

Weight: The bridge must weigh 250 grams or less.

5. Configuration of Models:

Clear distance: An 8cm high by 4cm wide clearance must be provided along the entire length of the bridge.

6. Testing the bridge:

1. The load will be applied that will be laid upon the span of the bridge.
2. The bridge model will be loaded till failure. The maximum deflection at the point of yielding and the load at that moment will be used to evaluate the structure.

7. Team Size: Maximum 3 students per team. Construction: Sticks can be stacked together length-wise to form stronger structural elements or to make long span elements. Maximum number of sticks that can stack together is four, at a joint not more than five stick are allowed. The structure should be single span with no intermediate support.

8. Judging and Scoring:

1. First the structure will be reviewed to check if it violates any rules mentioned above.
2. The scoring of the structure will be based on performance as well as aesthetics:
3. The bridge will be scored on how well the material has been used to support the load. The efficiency will be calculated as the ratio of ultimate load capacity and the bridge weight.
4. The bridge will also be scored on aesthetics. The judges will judge the bridge based on the detail to connections and members, the uniqueness of the design and its overall look.
5. The deflection of the bridge at yielding will be noted. If the deflection increases more than 10 mm, then the load at that deflection will be taken as the ultimate load

“In engineering, the best solution may not always be the biggest or strongest bridge.”

9.Scoring Criteria:

1. Deflection at yield (d) =

20% Efficiency (e) = 50%

Aesthetics (a) = 30%

Total Score (S) = d + e + a

2. Violating any of the conditions mentioned underneath, penalty will be imposed according to the judges and may lead to disqualification:

a. Weight exceeds the limit (Penalty of 20% of the total score)

b. Dimensional specifications are not met (Penalty of 10% of the total score)

c. Use of material, except the ones stated in rule (Penalty of 50% of the total score or can lead to disqualification)

In case of any discrepancies, the decision taken by the judges and the council will be the final verdict.

10.Entry fees: 150/-

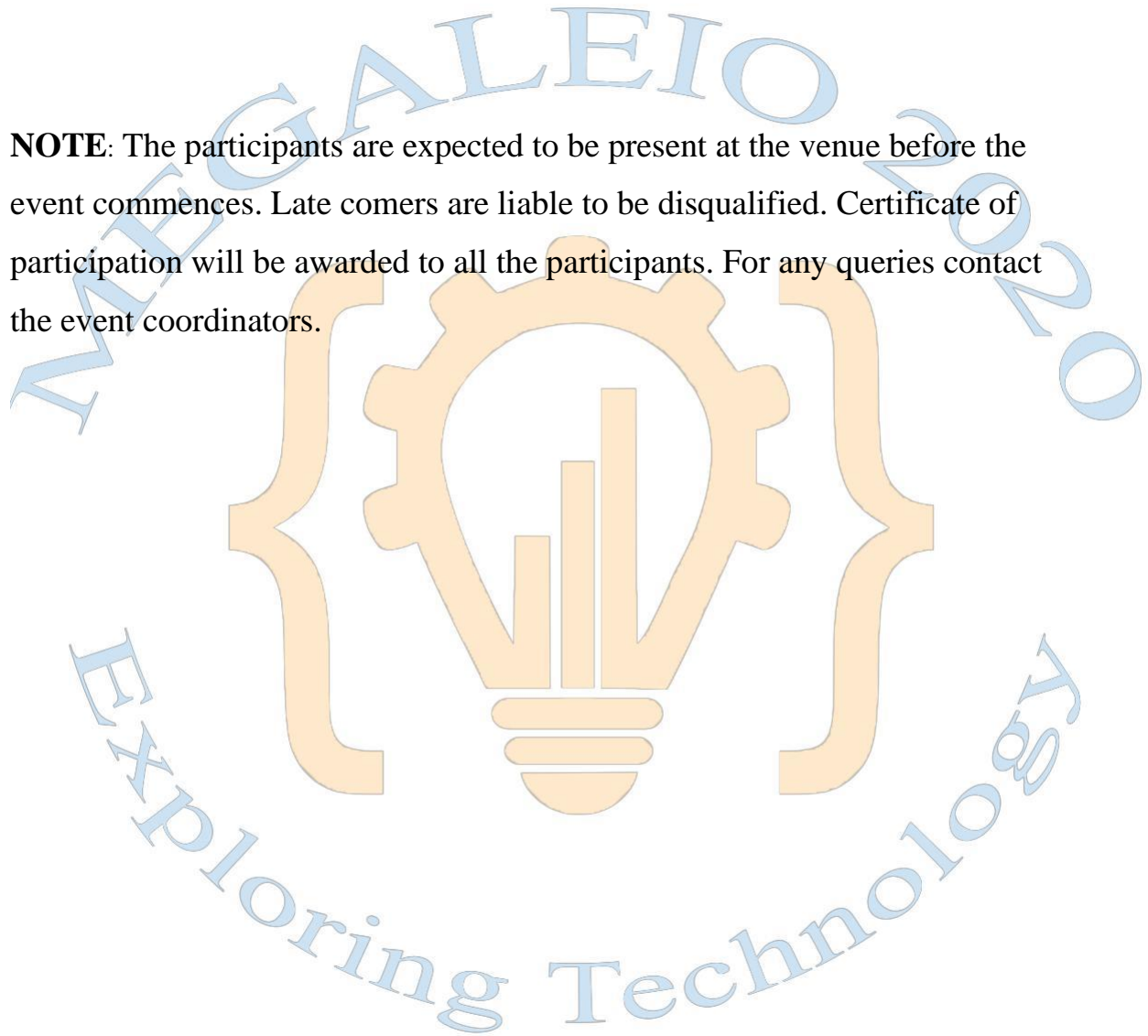
11.Prize Money:-

1st prize:- 3000rs/-

2nd prize:- 2000rs/-

12.Coordinator: Harikrishna Gundagoni:- 7039212880

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.



Building Drafting

Exact process

Round 1: It will be consisting of a technical/aptitude based test on basis of which further process will be followed. The test will contain 20 question and the time limit will be of 10 minutes

Round 2: The candidates clearing round 1 will be given a simple drawing task within a limited time and specification.

Round 3: The candidates with the most successful completion in round 2 will be selected for final round 3 which will be having a design based problem on Auto CAD and with a considerable amount of time period and limited design variations.

Guidelines:

1. Time and Type of structure is given on the spot on given date.
2. Points will be allotted based on AUTOCAD skill 20 points, and for plan 15 points.
- 3.FSI and Other calculation= 15 points.
- 4.The participant highest points will declare as a winner.

General Rules:

- Anyone who will be not ready or present on the given time will be disqualified.
- Judges decision will be final and binding to all.

•Organizers deserve all the rights to modify any of all rules as their team fit and will be highlight on the

website.

•Maximum 2 participants.

Judging Criteria:

NOTE:

Points given by the judges will be final. No argument will be tolerated; the participant arguing with the judges can be disqualified.

Competition Rules:

- Competition is open to all those who have a clear knowledge.
 - All the participants are requested to bring their College Id, and a copy of the fee receipt.
 - Disturbance to the neighboring participants will cause disqualification.
 - Participants must reach the venue 15mins before the competition begins.
 - Asking for hints will cause deduction of marks.
 - Any sort of misbehavior will not be tolerated.
 - No participants will be allowed to enter the competition 10mins after the commencement.
-
- **Entry Fee:** 100 rs.

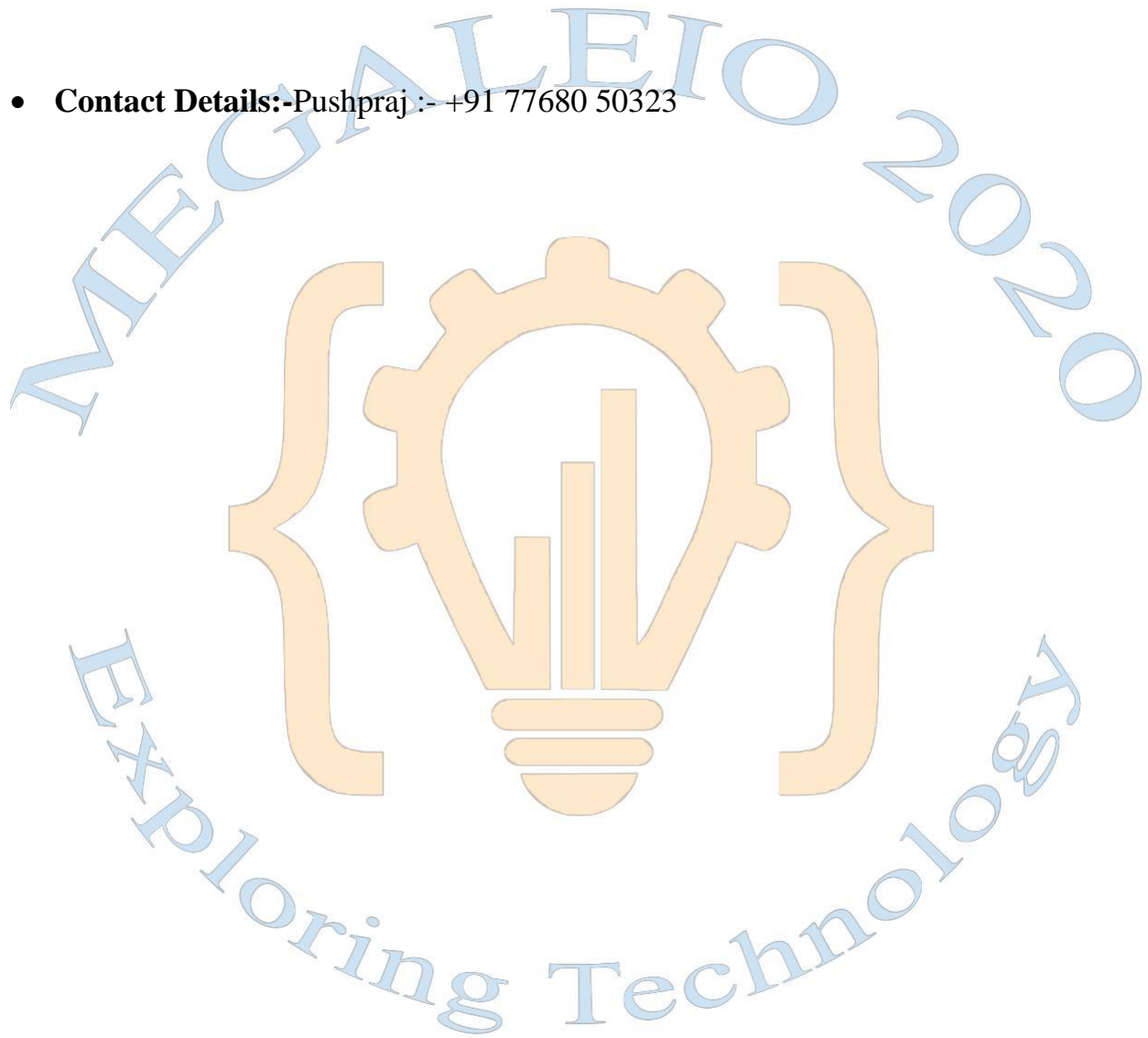
- **8.Prize :-**

1st prize :- 3000/-

2nd prize :- 1500/-

3rd prize :- 500/-

- **Contact Details:-**Pushpraj :- +91 77680 50323



CIVIL WAR

1. Problem statement

To answer the asked civil engineering related technical questions and cross the upcoming rounds.

2. Game play: There will be 4 rounds.

Round 1

- Pen and paper round.
- You have to choose the right option from the given set of options.
- Negative marking is included.
- Top teams will qualify for next round.

Round 2

- Answer or pass round.
- There will be 3 rounds will be conducted in this particular round.
- If answer is wrong or question is not answered then question will be passed.
- Top teams will be qualify for next round.

Round 3

- Buzzer round
- There will be same questions asked to all the teams at the same time.
- Whichever team rings the bell first will be given first chance to answer the question.
- There will be no negative marking.
- Top teams will be qualify next round 4 .

Round 4

- Rapid fire round.
- Nominated teams will be given 3 minutes time to answer the questions.
- No question limit.

3. Judging Criteria

Round 1

No. of questions for all groups will be 15

Each questions carries 2 marks.

Every wrong answers will be minus

1. Total time is 12 minute.

Round 2

20 questions will be asked in each 3 round.

10 marks for correct answer.

5 marks for correct answer of passed question.

30 seconds to answer asked question.

15 seconds to answer passed question .

Round 3

There will be 10 question in this round.

Time will be given 30 seconds for each

question. 5 marks will be awarded per question.

Round 4

No questions limit.

Nominated groups should answers maximum number of questions in restricted time.

4. Competition rules

Students should not carry any type of accessories.

Student must tell the answer only when asked specially for round 3.

If any team is found using any type of unfair means will be disqualified.

5.Entry Fee 100/- Per Team

6.Prize Money:-

1st prize:- 3000/-

2nd prize:- 1500/-

3rd prize :- 500/-

7.Team Specification:- 2 members per team Diploma and Degree Engineering students can participate.

8.Contact Details

Student Co-ordinator: Shrushti Patil - 8390074510

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.

MECHANIX

1. Problem Statement:

This is one of the Games which every person has played during childhood as engineering game relevant to Mechanics; the game where assemblies being done using various links, clamps, Nut-bolts etc.

2. Game Play:

Level 01:

Stage 1:- To execute the Basic model (using 2 Sets) as per Team concept. Stage 2: To execute the Model as per instructions within 5mins.

Level 02:

Stage 1:- To execute the Final model (using 4 Sets) as per Instruction.

Stage 2: To execute the Model as per instructions within 10mins.

3. Judging Criteria:

The teams will be ranked according to their complexity of model for the competition. A score will be given; Based on Concept of model, Maximum utilization of the components available in 2 sets, time of completion. Scores will be distributed in as per same.

In the event of a tie, submitted calculations will be judged according to the following criteria:

The complexity of the Design.

The neatness of assembly & joints. Min time taken.

Any Mechanism been used.

4. Competition Rules:

Level 01.

Each team will be given a maximum of 5min and 02 Sets of Game box.

Each team has to work with concept and build the assembly.

No team will be provided extra material out of Game-box.

After completion of task, each team has to dismantle assembly and submit to coordinators.

The team members are instructed not to take away any material from the Game-box.

Among all teams only 04 teams will qualify for Level 02, these teams will play Level 02.

Level 02:

Each team will be given a maximum of 10 min. and 04 Sets of Game box.

The qualified 04 teams from level 01, will compete as per their score in Level 01.

The First team in Score list will compete with Second team in the List in Round 01.

The Third and fourth ranked team in the Score list will compete with each other in Round 02.

The Winner of Round 01 will directly go in the Final Round 04.

The loser of Round 01 will compete with Winner of Round 02 in the Round 03.

The Winner of Round 03 will be directly competing with winner of Round 01 in final Round 04.

5. Team Specification:

Each team consists of maximum 3 members.

Team will not change after registration.

Teams who do not report after the start of event, will not get second chance. Team member remain unchanged.

In case of any team member of team, won't be able to report at venue; rest of the Team members will have to participate.

6. Entry Fee:-Rs. 150/- per team

7. Prize :-

1st prize :- 2500rs/-

2nd prize :- 1000rs/-

3rd prize :- 500rs/-

8. Contact Details:- Coordinator: Mrunal Rane: 9637125854

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of

participation will be awarded to all the Participants. For any queries contact the event coordinator.



CADECORE

1.Problem Statement:

To analyze the given 2D or 3D view of the model and redraw it using your own perspective and within the least time possible.

2.Game Play:

- The event will consist of rounds depending upon the number of entries and the MODELS will get harder with progress of each round.
- Computers with the required software's like Solid works, AutoCAD, Ansys will be available, also participants can bring laptops if want to perform with their required software like PRO-E and CATIA, Inventor, Fusion 360, or any another. Models which is to be made will be provided on the spot and will be common to all participants.
- The 3D model has to be made from Orthographic or Isographic projection which will be provided at the time of competition.

3.Judging Criteria:

- As the competition is clearly time dependent, judging will be based upon, A. Least time taken to complete the model,
B. Dimensional accuracies,

C. Model with clean body structure, movable parts (if present).

4.Competition Rules:

- Competition is open to all those who have a clear knowledge of creating the models using the above-mentioned software's.
- Max. Time duration will be 20-25mins.
- All the participants are requested to bring their College Id, and a copy of the fee receipt.
- Disturbance to the neighboring participants will cause disqualification.
- Participants must reach the venue 15mins before the competition begins.
- Asking for hints or easy models will cause deduction of marks.
- Any sort of misbehavior will not be tolerated.
- No participants will be allowed to enter the competition 10mins after the commencement

NOTE: Points given by the judges will be final. No argument will be tolerated, the participant arguing with the judges can be disqualified.

5.Team Specification:

The competition is individual based. There won't be any team performance; each participant has to perform the task individually.

6.Entry fee: Rs. 100/-

7.Prize :-

1st prize :- 3000rs/-

2nd prize :- 1500rs/-

3rd prize :- 500rs/-

8.Contact detail: Coordinator: Mr. Ninad Santara – +91-7977716297

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.



TREASURE HUNT

1. Problem Statement:

- To understand, correlate and analyze the clues/ hints so as to find next location and to ultimately find final treasure

2. Game Play:

- Firstly each team would be given the first clue. This clue will lead to the next respective clues.
- In similar way team will need to find all the clues and the final treasure.
- Participants would only require to have a general knowledge and understanding and ability to solve given clues.
- Clues will get harder as team ascends in the game.
- A certain number of clues will be called as batch (for eg. 3clues = 1 batch). After finding each batch one of team member should report to coordinator desk to note the time
- Event can consist of two or more rounds depending upon the number of entries.

3 . Judging Criteria:

- Points will be allotted for finding certain number of clues.
- Also time required to find those clues will have effect on points to be given
- Team which finds all the clues and final treasure wins.
- Ranking of all the teams will be based on points obtained by each team

3. Competition Rules:

- All the clues and hints will be available and accessible within defined perimeter of college premises
- Team of 4 members has to be made
- Never tamper with another team's treasure. When you pick up your own team's treasure at a location, leave the other treasures hidden there exactly as you found . A violation of this rule could cost your team .
- If any Clues are missing from its right place respective teams should inform Co-coordinators immediately.
- All the participants are requested to bring their College Id, and a copy of the fee receipt.
- Participants must reach the venue 15mins before the competition begins.
- Teams can ask for hints only after certain time but it will cause deduction in points.
- Any sort of misbehavior will not be tolerated.
- Additional details would be provided on day of event before event starts.

NOTE: Points given by the judges will be final. No argument will be tolerated, the participant arguing with the judges can be disqualified.

4. **Team Specification:** Team must consist of 4 members .

5. **Entry fee:** Rs. 200/- per team

6.Prize :-

1st prize :- 4500rs/-

2nd prize :- 2500rs/-

3rd prize :- 1000rs/-

7.Contact detail: Coordinator: Mr. Amit Pathak – 9923872948

Mr. Raj Shah - 9673167644

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.



Paper Presentation

1. Brief Idea:

Paper Presentation is a mean of sharing your technical ideas and research with the rest of the technical world. 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.

2. Topics and Deadlines:

Topics of Different Departments:

Civil Engineering:

- 1) Green Building Compliance Structure
- 2) Geo polymer Concrete
- 3) Cost overrun in construction project
- 4) Carbon Fiber Reinforced Polymer Concrete
- 5) Soil Stabilization

Mechanical Engineering:

- 1) Advances in computer aided technologies
- 2) Hybrid Engines and Alternate Fuels.
- 3) Latest trends in manufacturing
- 4) Thermal Design
- 5) Latest trends in Non-Conventional Energy
- 6) Applications of computer fluid dynamics.
- 7) Industry 4.0
- 8) Smart Materials.

Electronics and Tele-Communication Engineering:

- 1) Internet Of Things
- 2) Trends in VLSI
- 3) Contribution of electronics to world
- 4) Future of communication system
- 5) Nanotechnology

Information Technology and Computer Engineering:

- 1) Cybercrime And security
- 2) Cloud Computing
- 3) Data mining And Web mining
- 4) Open Source Technology
- 5) Artificial Intelligence
- 6) Blockchain.

Any Participants of any institute can enroll on any topic.

Document Type	Date for Submission
Abstract Submission	15/01/2020
Abstract confirmation	20/01/2020
Paper Submission	25/01/2020

- Participants are needed to send in the abstracts for their presentation at: megaleio@sjcem.edu.in with all details.

- You will get a confirmation mail when your abstract is selected.

3.Competition rules:

- Abstract should not exceed 500 words.
- Abstract must be submitted as a PDF document.
- Paper Should Be in IEEE format.
- Paper should not Exceed 3 pages.
- Team should include 2 members only.
- Presentation must be in PPT format.
- **Details of the Participants:** Name, Department, E-mail id, Contact No., Institution Name should be proper.
- Time for Presentation is 15 minutes (12 minutes presentation + 3 minutes Question-Answer Session)
- Participants have to bring 2 hard copies of paper.

4.Entry fee: Rs 100/- per team

5.Prize Money:-

1st prize:- 3000rs/-

2nd prize:- 2000rs/-

3rd prize :- 1000rs/-

6. Coordinator details: Divya Gawas – +91 99759 05938

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of participation

will be awarded to all the valid participants. For any queries contact the event coordinators.



POSTER PRESENTATION

Write so your audience can understand why your work is of interest to them, providing them with a clear take home message that they can grasp in the few minutes they will spend at your poster.

1.GAME PLAY :

- The participants task is to create a poster that explains their topic
- There are two constraints:
 - a. It must be self explanatory.
 - b. It must be clearly visual.
- The task must be completed in the given time.
- The posters submitted after time will be rejected.

2.JUDGING CRITERIA :

- Presentation skills of the participants.
- Poster quality in terms of contents.
- Conciseness information.
- Originality.
- Innovation.
- Uniqueness and Clarity.

3.COMPETITION RULES :

- The participants should have identity cards with them.

- Use of any kind of poster colours is allowed.
- Each team will be provided with a full size white chart paper.
- Participants should have their own stationery required for poster design.
- Writings of words in the poster should be in English.
- Shouldn't use any patches, stickers, etc. In the poster.
- Limit your text.
- Use no more than two font types and only three or four font sizes.
- Decision of the judges will be final and binding.
- If the participant is found to have violated the rules will be disqualified and not allowed to continue the competition.
- Any requirements before the event must be informed to the event head.

4.TEAM SPECIFICATION: Each team should include 3 to 4 members only.

5.ENTRY FEE :Rs 100/- (per team).

6.Prize Money:-

1st prize:- 3000rs/-

2nd prize:- 2000rs/-

3rd prize :- 1000rs/-

7.Coordinator Details : Rahul Kumar :- 8788563294

NOTE: The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified. Certificate of

participation will be awarded to all the valid participants. For any queries contact the event coordinators.



Quiz Competition

1. Problem statement

To answer the asked questions and cross the upcoming rounds.

2. Game play:

There will be 8 rounds.

Round 1 (Elimination round)

- You have to choose the right option from the given set of options.
- Negative marking is included.
- Top teams will qualify for next round.

Round 2 (Answer or pass)

- A group of question will be displayed, team has to try to give maximum correct answers.
- If answer is wrong or question is not answered then question will be passed.
- Top teams will qualify for next round.

Round 3 (Logo Smash)

- Logos will be displayed on the screen for each team, they have to identify the logos.
- If answer is wrong or question is not answered then question will be passed.
- Top teams will qualify for next round.

Round 4 (guess the flag)

- You have to name the flag that has been displayed on the screen.
- If answer is wrong or question is not answered then question will be passed.
- Top teams will qualify for next round.

Round 5 (Pictionary)

- Pictures or images of known personalities would be displayed, team has to recognize it.

- If answer is wrong or question is not answered then question will be passed.
- Top teams will qualify for next round.

Round 6 (Buzzer it)

- First come, first serve.
- Question will be asked to all teams at same time.
- Whichever team rings the bell first will be given first chance to answer the question.
- If the answer is wrong, then the team who rang the bell will be given chance to answer.
- Negative marks will be given for wrong answer.
- Top teams will qualify for next round.

Round 7 (Audio visual round)

- A particular Audio-video will be shown to all the teams at the same time they need to observe the video keenly.
- Later question will be asked to each and every team based on the audio video.
- Top teams will qualify for next round.

Round 8 (Rapid fire)

- 10 questions will be asked in 100 seconds for each team.
- Questions will be displayed either they have to answer it or say “next” for next question.

TIE-BREAKER(if situation arises): rules will be disclosed on the spot.

3. Judging criteria:

Round 1 (Elimination round)

- This round will have 15 questions for each team.
- +2 for correct answer.
- -1 for wrong answer.

Round 2 (Answer or pass)

- 5 questions will be asked to each team.
- +10 marks for correct answer.
- +5 marks for correct answer of passed question.
- 30 sec to answer asked question.
- 15 sec to answer passed question.

Round 3 (Logo Smash)

- 2 questions will be asked overall.
- +10 marks for correct answer.
- +5 marks for correct answer of passed question.
- 20 sec to answer asked question.
- 10 sec to answer passed question.

Round 4 (guess the flag)

- 2 questions will be asked overall.
- +10 marks for correct answer.
- +5 marks for correct answer of passed question.
- 20 sec to answer asked question.
- 10 sec to answer passed question.

Round 5 (Pictionary)

- 2 questions will be asked overall.
- +10 marks for correct answer.
- +5 marks for correct answer of passed question.
- 20 sec to answer asked question.
- 10 sec to answer passed question.

Round 6 (Buzzer it)

- First come, first serve.

- 6 questions will be asked overall.
- +10 marks for correct answer.
- -5 marks for wrong answers.

Round 7 (Audio visual round)

- 1 question for each team.
- 10 marks for correct answers.

Round 8 (Rapid fire)

- 10 questions will be asked in 100 seconds for each team.
- +10 marks for every correct answer.

4. Competition rules:

- Students should not carry pen, paper, book, cell phone, digital watches or calculator with them.
- Students must tell the answer only when asked especially for Round 3,4,5.
- If any team is found using any type of unfair means will be disqualified.
- Rules announced before every round will be the actual rules for that particular round.
- Final decision will be upto the judges.

5. Team specifications:

- 2 members per team.

- Participant should be a graduate/post graduate level college student.
- Team members can be of any branch or from any year.

6. Entry fee:

- Rs.100 per team.

7.Prize Money:-

1st prize:- 3000rs/-

2nd prize:-1500rs/-

3rd prize :- 500rs/-

7. Coordinator details:-Mr. Shivam Dube - +91-8237501997

NOTE: The participants are expected to be present at the venue before the event

commences. Late comers are liable to be disqualified. Certificate of participation will be awarded to all the participants. For any queries contact the event coordinators.

CALL OF DUTY

- **Gameplay: TDM 4 Men squad**

PUBG Mobile has been the go-to multi-player shooter game on smartphones for over a year now. This is where the more exciting Call of Duty Mobile steps in. The gameplay format is similar to PUBG Mobile but faster, smoother and gives you a feel of modern warfare. Unlike pubg You get two different forms of shooting in CoD -- an automatic firing mode that will suit every casual player, and an advanced, lock 'n load mode that hardcore shooter enthusiasts will likely find more to their taste.

- **Judging Criteria: Wining team will be qualified for the next round**

- **Competition Rules**

- 1)No third party app(Discord , GFX tool)
- 2)No external hardware's allowed.
- 3) 1 player should use only 1 in game name.(use of multiple accounts by single player is not allowed.)
- 4)No swapping of phones.
- 5)Charging port will not be provided so carry your charged power bank if needed.
- 6)Net will not be provided .
- 7)No team up .If found the team or solo person will be disqualified.

8)No verbal abuse if found disqualified.

9)No refund after registration.

10)If the person fails to assemble on time the person will be disqualified.

- **Entry fees-200 Rs /per team.**

- **Prize :-**

1st prize :- 4000/-

2nd prize :- 2000/-

- **Contact Details**

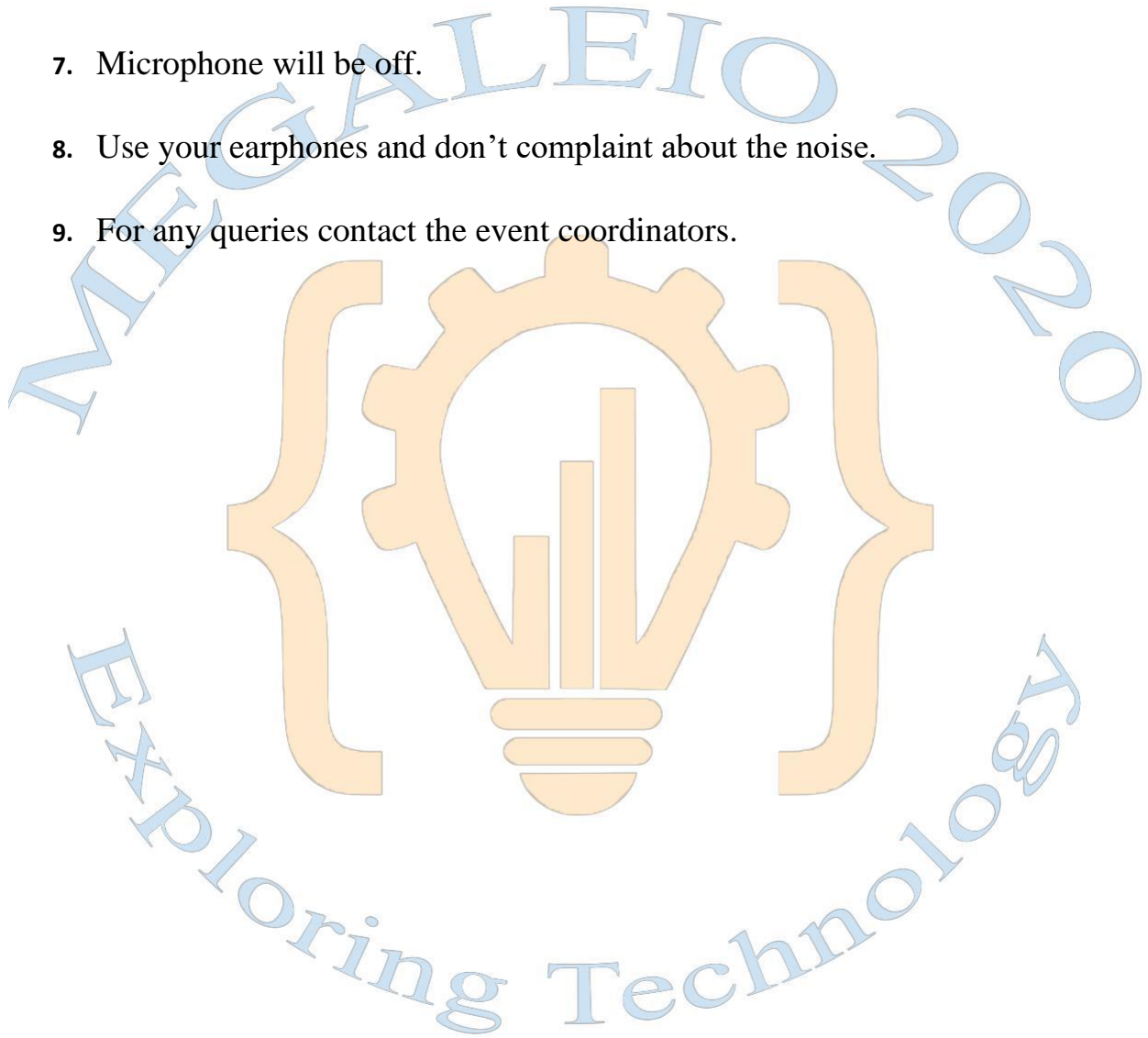
Vaibhav Kadam:-9970836988

Divyesh Pawar-7977313011

NOTE:-

1. Players need to connect given room within given duration(5-7 min).
2. If a match was incorrectly reported into our system, your team has 10 min to protest the report. Match protest must include media evidence clearly showing the results of the match. Teams are responsible for providing proof of match results in case of disputes.
3. If a participant cannot play at the scheduled start time , we will remove the team for participating in the tournament.

4. In the case that a player(s) disconnects during a match , the team is allowed to continue to play the match at a disadvantage.
5. No substitute players are allowed.
6. Abusive behavior will not be entertained might lead to disqualification.
7. Microphone will be off.
8. Use your earphones and don't complaint about the noise.
9. For any queries contact the event coordinators.



Player Unknown Battlegrounds (PUBG) Mobile

- **Problem Statement:**

Hunger for victory? Try to grab a Winner-Winner Chicken-Dinner in this **PubG mobile** event.

- **Gameplay:**

Participate in PUBG MOBILE SQUAD AND SOLO MODE Consists of rounds as follows –

- Direct elimination rounds (First, Second)
- Ranking rounds (Finals only)

- **Judging Criteria:**

Participants qualifying in top N position (Based on entries) are eligible for next round. Ranking will be based on No. of kills for multi-round final

- **Competition Rules:**

1. Each Squad must have up to 4 players only.
2. Teaming up in any way will result to disqualification.
3. Players must give their PUBG Nickname game ID along with their name during registration.

4. Each player must have their own mobile device with Internet.
5. All the participating members must be present at the venue.
6. All players must install the newest version of the game in order to participate.
7. Internet lag and game lag will be on participant's risk.
8. Third party app(Discord , GFX tool)
9. No external hardware's allowed.
10. 1 player should use only 1 in game name.(use of multiple accounts by single player is not allowed.)
11. No swapping of phones.
12. Port will not be provided so carry your charged power bank if needed will not be provided .
13. No team up .If found the team or solo person will be disqualified.
14. Abuse if found disqualified.
15. Refund after registration.
16. The person fails to assemble on time the person will be disqualified.
17. Room Id will be provided.

- **Entry Fee:**

50 Rs each for
SOLO MODE

- **Prize :-**

1st prize :- 2000/-

2nd prize :-1000 /-

200 Rs each for
SQUAD MODE

- **Prize :-**

1st prize :-4000 /-

2nd prize :-2000 /-

- **Contact Details:-**

Sarvesh Lokhande:-8788261268

Amritraj Singh:-8605070836

NOTE:

- Players need to connect given room within given duration(5-7 minutes).
- If a match was incorrectly reported into our system, your team has 10 minutes to protest the report. Match protests must include media evidence clearly showing the results of the match. Teams are responsible for providing proof of match results in case of disputes.
- If a participant cannot play at the scheduled start time, we will remove the team from participating in the tournament.
- In the case that a player(s) disconnects during a match, the team is allowed to continue to play the match at a disadvantage.
- No substitute players are allowed.
- Abusive Behavior will not be entertained might lead to disqualification.
- Microphone will be off.
- Use your earphones and don't complain about the noise.

- Certificate of participation will be awarded to all the participants.
- For any queries contact the event coordinators.

