**Sarvajanik education society**

**Sarvajanik College of Engineering & Technology**

***Mechanical Engineering Department***

# Report

# on

# Momentum-2K19

## (Under the banner of Kshitij-2019)


**Date of event: 06th and 7th Sep, 2019.**

**Student coordinators: Aum Captain & Bhava Mehta**

**Faculty coordinator: Dr. Bhumi Shah**

**Head of Department: Dr. Nitin Vibhakar**

Mechanical department has organized pioneer event of "Momentum-2k19" under the umbrella of Kshitij-2019. Brilliant & innovative ideas were being presented in this two days event. Meeting of minds can transform aspiration in thought, thought into idea, idea into concept, concept into experiment and experiment into invention. The aim of MOMENTUM 2K19 was to provide platform to the students to showcase their talents and skills.

The event has started with inauguration function for welcoming & inspiring the technocrats. A lamp teaches to be upright, rise upwards and dispel darkness. The inauguration is followed by the lamp lightning & saraswati vandana.

Each event has something to offer and could be the stepping stone for the creative thinking. The seven events were organized for celebrating the knowledge & skill under the Momentum-2k19 are:

| ***Sr. No.*** | ***Events*** | ***Event Co-ordinators*** |
|---|---|---|
| *1* | *CAD Designer* | *Prof. Amit Mehta* |
| *2* | *Junkyard Wars (The science of fluid)* | *Prof. Mehul Chhowala* |
| *3* | *Contraption* | *Prof.Dhruvin Shukla* |
| *4* | *Tech Intellect* | *Prof. Satish Dokiparti* |
| *5* | *Poster Presentation* | *Prof. Nilesh Patel* |
| *6* | *Model Presentation* | *Prof. Umang Gajjar* |
| *7* | *Expert Talk* | *Dr. Pankaj Gohil* |

The brief description of the event is summarized below:

## 1. CAD Designer

Drawing is a language of engineers and nowadays Computer Aided Drawing (CAD) is a very common practice in the industry. Every industry expects that the fresh engineers coming out of any institute should be aware about CAD methodologies. Keeping this in mind this event is organized to provide a platform to the students for learning these concepts along with a fun quotient.

We have organized two rounds in CAD designer event. Students were asked to use AUTOCAD/ Creo/Solid work software for 2D and 3D modelling. In the 1st round, the problem of 2D drawing and orthographic projection were given to students. In the 2nd round, the problem of 3D drawing and isometric projection were given to selected students from the 1st round. Many students were able to complete these problems.

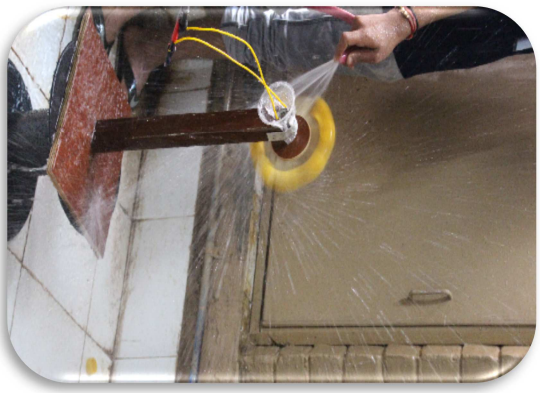
| | |
|---|---|
| Number of Round: | 02 |
| Total number of participants | 16 |

## 2. *Junkyard Wars (The science of fluid)*

The competition is open to **undergraduate students** of **any discipline**. The participants will be given problems/tasks which can be solved with basic knowledge of fluids. The event was divided in 2 rounds of which in round 1 student will have to do basic calculations related to density and mass of fluids. In round 2 participants had to create a water turbine out of junk and the models were judged on basis of power output when connected to electric motor.

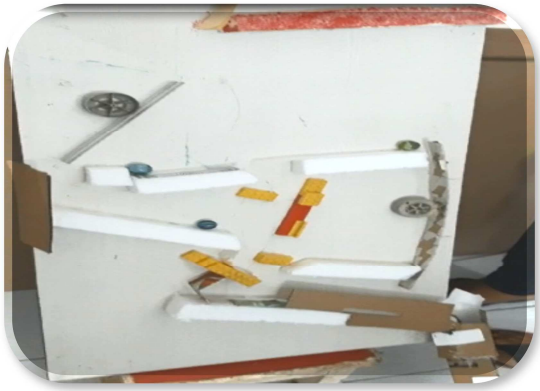
Event was organized in such a way that basic knowledge regarding fluids and fluid mechanics were tested practically and it turned out to be a great success.

Total number of Groups 11 team in Round 1
6 team in Round 2



### 3. *Contraption*

Students research simple machines and other mechanisms as they learn about and make Rube Goldberg machines. Working in teams, students design and build their own Rube Goldberg devices with 10 separate steps, including at least six simple machines. In addition to the use of readily available classroom craft supplies, 3D printers may be used (if available) to design and print one or more device mechanisms. Students love this open-ended, team-building project with great potential for creativity and humor. There was only single round conducted with number of two participants.



### 4. *Tech Intellect*

Quiz competition is a pursuit of trivial knowledge, encouraging students to achieve academic excellence and increase their awareness about the world around them. With this motive a technical quiz was organised for all under graduate students of our college. This event witnessed a participation of 58 teams (with min 1 to max 3, team members in a team). Technical quiz was conducted in three rounds:

Round 1 - Multiple Choice Questions based written test on General Knowledge & Current affairs. From round 1, total 15 teams got qualified for round 2.

Round 2 - Rapid Fire round. Multiple Choice Questions were displayed on the screen for 15 secs and teams were asked to write the answers in the answer sheet. From round 2, total 5 teams got qualified for Round Final round.

Round 3 - Buzzer based Audio & Visual Round.

Here are the some glimpses of the event:

***5. Poster Presentation***

A poster session is a good way to disseminate your work, impartial discussion of your work by a peer can often provide ideas for improving your work downstream. Poster sessions offer the opportunity to practice your presentation skills. You might strike up a conversation with someone about your poster that may lead to future collaboration or even a job offer. Sometimes a poster session is better than an oral presentation due to time constraints in the latter. There were 7 teams (24 participants) received in Poster Presentation. Among them 4 teams were remains present on the day of the event. There was one round conducted on the day of event.

***6. Model presentation***

Event has been organized in such a way where students can show their competence abilities for their technical projected models. This has been shown in the very first round where students got a platform to use all their skill for demonstrating their knowledge in making of successful projects models.

**7. Expert Talk**

In order to understand the theoretical concepts, practical exposure is must. Hence an expert talk was arranged for all the students especially for the students from Mechanical Engineering Department; who were eager to "Learn about Automobiles". The talk was arranged on 7th sept 2019 at 9:30 am, in seminar hall of Chemical Engineering Department. It was delivered by Mr.

Shailesh Prajapati, Shree Swastik Motors – A multi car workshop. He has more than 14 years of work experience in Automobile Sector. He had started his talk from the earlier technologies used in Car Engines to the new technologies that have been incorporated. Later, he had discussed about distinct features of petrol and diesel cars, especially covering all the maintenance aspects. For practical exposure, he took all the students to TIFAC parking, in order to show the actual working engine of a car, its different parts and their respective function. Here are the some glimpses of the event:


**Momentum-2k19 Summary**

| Date | EVENT | Time of Event | No of Entries of SCET | No of Students of SCET |
|---|---|---|---|---|
| | | | | |
| **06-09-2019** | Inauguration | 9:30 AM-10:00 AM | --- | --- |
| | CAD designer(Round-1) | 11:00 AM-1:00 PM | 16 | 16 |
| | Junkyard Wars(Round-1) | 11:00 AM-1:00 PM | 11 | 40 |
| | Mechanical Contraption | 1:30 PM-3:30 PM | 1 | 2 |
| | Tech Intellect(Round-1) | 1:30 PM-3:30 PM | 58 | 149 |
| **07-09-2019** | Expert Talk | 9:30 AM-10:45 AM | 33 | 33 |
| | Poster presentation | 11:00 AM-1:00 PM | 7 | 24 |
| | Model Presentation | 11:00 AM-1:00 PM | 1 | 3 |
| | CAD designer(Round-2) | 11:00 AM-1:00 PM | | |
| | Junkyard Wars(Round-2) | 1:30 PM-3:30 PM | | |
| | Tech Intellect(Round-2) | 1:30 PM-3:30 PM | | |

Valedictory function & prize distribution

The function was successfully ended with the prize distribution & vote of thanks given by Dr. Nitin Vibhakar, HOD of mechanical Engineering department.

Some glimpses of the events is as follow.




MECHANICAL