

# M.E.S.A. Magazine

## 2018-19



## **MESA (MECHANICAL ENGINEERING STUDENTS ASSOCIATION)**

### **Who are we?**

Mechanical Engineering Students Association (MESA) is a students' committee comprising of Third Year Mechanical students and faculty members of Mechanical department, for the welfare and improvement of students. The committee works hard to fulfil the co-curricular requirements of students, with the help of member faculties and under the guidance of Prof Megha Janbandhu and the Head of the department Dr. Nilesh Raykar. The committee not only does co-curricular activities but also extra-curricular activities including interaction with the industry; industrial internships, industrial visits, sports and seminars.

The various activities and events organized by MESA for the year 2018-2019 are as follows:

- Stress Management workshop for first year Mechanical students 31st August 2018
- Teachers Day on 5th September, 2018.
- 1 Day Trek to Karnala bird sanctuary on 9th September, 2018.
- SPCE Cup, an annual sports event, from 3rd October to 18th October 2018.
- Training at Air India from 18th December, 2018 to 13th January 2019.
- Training at BEST from 17th December 2018 to 14th January 2019.
- Blood Donation camp in association with Bombay Blood Bank on 22nd January 2019.
- RCF visit for final year students on 18th February 2019
- CNC workshop for first year students from 20th February to 26th February 2019.
- MESA Cup, a departmental annual sports event from 1st April to 9th April, 2019.
- Tree plantation in front of s.p.c.e. boys' hostel.
- Study and research in Germany seminar on 25<sup>th</sup> april 2019 in collaboration with training and placement cell.

The committee has always worked for the betterment of the students to the best of its abilities and looks forward to come up with more events activities to enrich the years that students spend at SPCE.

Adesh Koli  
(MESA General Secretary)



## Stress Management Workshop

Stress has become an inseparable part of engineering, whether career or degree. Stress management hence becomes a key part of life for us. MESA organised a stress management workshop for the students of first year mechanical. Stress management is a wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress, especially chronic stress, usually for the purpose of and for the motive of improving everyday functioning. The workshop was conducted by Dr. Ajay Sasane, Psychology Counsellor. The workshop was focussed on making students aware about the various aspects of stress as well as various techniques including meditation. The workshop was well received by the students.





# Teachers' Day

**MESA celebrated Teachers' Day on 5<sup>th</sup> September to honour our teachers who help us and serve us all year round. All the teachers from the mechanical department were invited. The event was started by thanking and felicitating all the teachers and the last year's Mesa committee. The event continued with a game for the Teachers - guessing old songs by listening to just the start of the song and singing it. The teachers as well as students had a really great time with this game. Just as things were looking as if they couldn't get any better, the second game started. it was a game of randomly picking a chit from a bowl and mimicking that actor or actress. All the teachers sportingly took part in this game and the students saw a completely different side of their beloved teachers. Finally, some teachers gave a message to the students as to what is expected from them by the college as well as the teachers. Overall the event was a grand success.**









## 1-day trek to Karnala

**“All work and no play makes jack a dull boy.”** believing in this simple philosophy MESA organised one day Trek to Karnala Bird Sanctuary. It was not only an opportunity to get one with nature but also an opportunity to bond with our fellow classmates outside the college as well as also with our seniors as well as our juniors. the day started off at the college where everyone assembled and started our journey in our buses. A few games were played in the buses. As our buses left Mumbai and we were nearing our destination, we were treated to some of the most breath-taking views in the Western Ghats. Unlike all the previous treks, this one was not as challenging as some of the previous ones and almost everyone was able to reach the top of the Karnala Fort. The day wasn't as good as we had expected because of the lack of rain that day but it did not let our spirits down. Reaching the top of the Fort gave all of us a sense of achievement not only did we make the difficult climb up but also some friendships that would last a lifetime.





# Air India internship



**Air India** is the flag carrier airline of India, headquartered at New Delhi. It is owned by Air India Limited, a government-owned enterprise, and operates a fleet of Airbus and Boeing aircraft serving 94 domestic and international destinations. MESA organised an industrial visit to air India at **Chhatrapati Shivaji Maharaj International Airport, Mumbai** on 18th December, 2018 to 13th January: 2019. The students experienced the grand scale of operations of air India and the repair work carried out by them. The students were familiarised with various components of the aircrafts and were taken onsite to see and assist in the maintenance of these aircrafts. They learnt in depth about the various components like the landing gear, parking brakes, the jet engines etc. this internship was beneficial not only for the engineering aspect but also as to how does an organisation function.





## Brihanmumbai Electricity Supply and Transport (BEST) internship



The Brihanmumbai Electricity Supply and Transport (BEST) is a civic transport and electricity provider public body based in Mumbai. BEST operates one of India's largest fleets of buses. The bus transport service covers the entire city and also extends its operations outside city limits into neighbouring urban areas. MESA arranged an internship for the third-year mechanical students of SPCE at BEST Wadala from 17th December 2018 to 14th January 2019. This internship provided the students the opportunity to not only familiarise with the various components of the BEST buses but also see and learn the repair and maintenance process for the buses. This internship was not only beneficial to the students interested in automobiles but also to all the students as this was an opportunity to see in person the various engineering practices.



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# Blood Donation Camp

Every year MESA organises a blood donation camp where doctors from Bombay Hospital station themselves in the college and collect blood from donors. Students from all colleges in the campus, teachers and other staff members come in and donate blood as per their capabilities. Members from the committee itself also did their part in contributing to the society. This instils a sense of social responsibility among the students from the first year itself. This year a total of 52 donors donated their blood out of 71 total applicants. Hence, this helps the college produce mechanical engineers with a sound understanding of their environment and their duties as an engineer and as humans.





## One day I.V. to Rashtriya Chemical Fertilizers.

The class of final year BTech Mechanical visited Rashtriya Chemicals and Fertilizers Limited in Chembur on 18<sup>th</sup> February 2019. Rashtriya Chemicals & Fertilizers Ltd. (RCF) is a Public Sector Undertaking (PSU) in India under the Ministry of Chemicals and Fertilizers of the Government of India. The manufacturing unit at Trombay is spread across 765 acres (including township) and manufactures ammonia, urea, ANP, methanol, nitric acid, sulphuric acid, etc.



The 1-day industrial visit was divided into two halves. In the first half we were engaged in an interactive session about the role of a mechanical engineer in an industry. We were told about the different types of industries and the process equipments which are required in them. In this first session we learned about pressure vessels, heat exchangers, piping, pumps, compressors, turbines and several other equipments.

The second half started with an informative session on the Haber-Bosch process used in the production of ammonia. This session was followed by the plant visit in which we were guided through the plant. We discussed the various aspects of handling a large-scale project such as the setup of the ammonia plant and were able to identify the different units and learned more about them in terms of their materials, capacity and other specifications.





## One day visit to BARC

The **Bhabha Atomic Research Centre (BARC)** is India's premier nuclear research facility, headquartered in Trombay, Mumbai, Maharashtra. BARC is a multi-disciplinary research centre with extensive infrastructure for advanced research and development covering the entire spectrum of nuclear science, engineering and related areas.

BARC's core mandate is to sustain peaceful applications of nuclear energy, primarily for power generation. It manages all facts of nuclear power generation, from theoretical design of reactors to, computerised modelling and simulation, risk analysis, development and testing of new reactor fuel materials, etc. It also conducts research in spent fuel processing, and safe disposal of nuclear waste. Its other research focus areas are applications for isotopes in industries, medicine, agriculture, etc. BARC operates a number of research reactors across the country.

Every year MESA arranges an Industrial Visit for students of first year on the occasion of national science day exhibition. This includes seeing state of the art new tech as well as seeing a nuclear reactor up close.





# **CNC Demonstration.**

**CNC means Computer Numerical Control. This means a computer converts the design produced by Computer Aided Design software (CAD), into numbers. The numbers can be considered to be the coordinates of a graph and they control the movement of the cutter. MESA conducted a workshop to familiarise the students of first year mechanical with the same. The workshop was conducted from 20th February to 26th February 2019. This was a two-part workshop wherein the students were excellently briefed about the idea of these machines by Anuj Mahadeshwar and then the students were given a demonstration of the CNC machines in college by Tushar Parekh and Shivam Gupta. The workshop was well received and we thank the Mechanical department of SPCE for making the lab available to us as well as all the students for such a great response.**









# MESA

## SPCE Cup and MESA Cup

SPCE cup and Mesa Cup were sports events organised by the students for the students to inculcate a spirit of healthy competition among students of various classes. Various sports like cricket, football, throwball, volleyball, carrom, chess, table tennis, badminton, etc. as well as e-sports like PUB G and Counter Strike. The events were successful in fulfilling their objectives.



1-9 APRIL

## **“Study and research in Germany seminar”**

**MESA and Training and placement cell jointly organised a seminar on study and research in Germany on 25<sup>th</sup> April 2019. The seminar was conducted by Mrs. Shubhada Choudhury, a representative of Deutscher Akademischer Austausch Dienst (DAAD).**

**DAAD is a German support organisation in the field of international academic co-operation. It is a private, federally funded and state fuelled, self-governing national agency of more than 365+ German higher institutions. It also provides grants to students at all academic levels.**

**The students had an interactive session in which they learnt about what are the admission requirements, scope of partial and complete scholarships, advantages of studying in Germany, future job opportunities and admission procedures. the event ended with a basic trivia game about Germany.**



# Tree Plantation

Trees contribute to their environment by providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil, and supporting wildlife. During the process of photosynthesis, trees take in carbon dioxide and produce the oxygen we breathe. Trees, shrubs and turf also filter air by removing dust and absorbing other pollutants like carbon monoxide, sulphur dioxide and nitrogen dioxide. After trees intercept unhealthy particles, rain washes them to the ground.

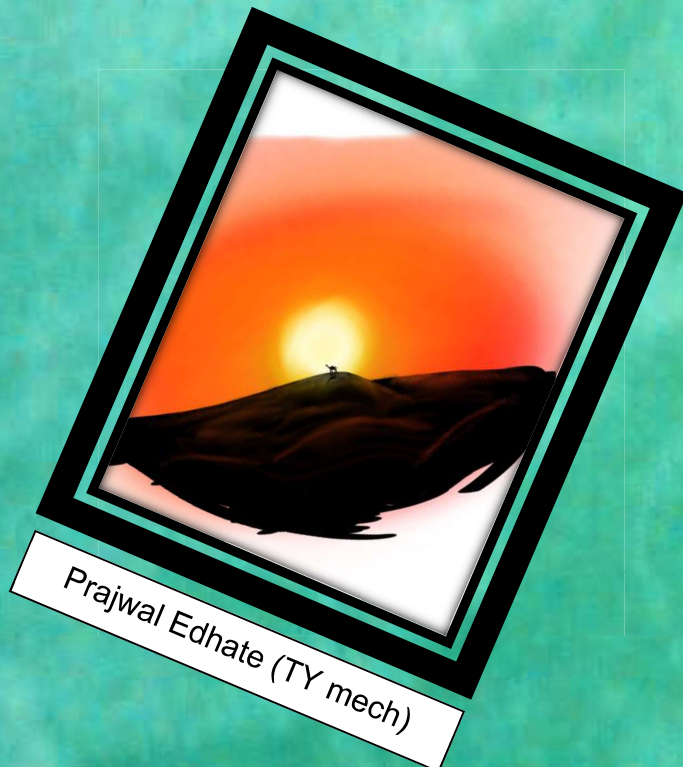
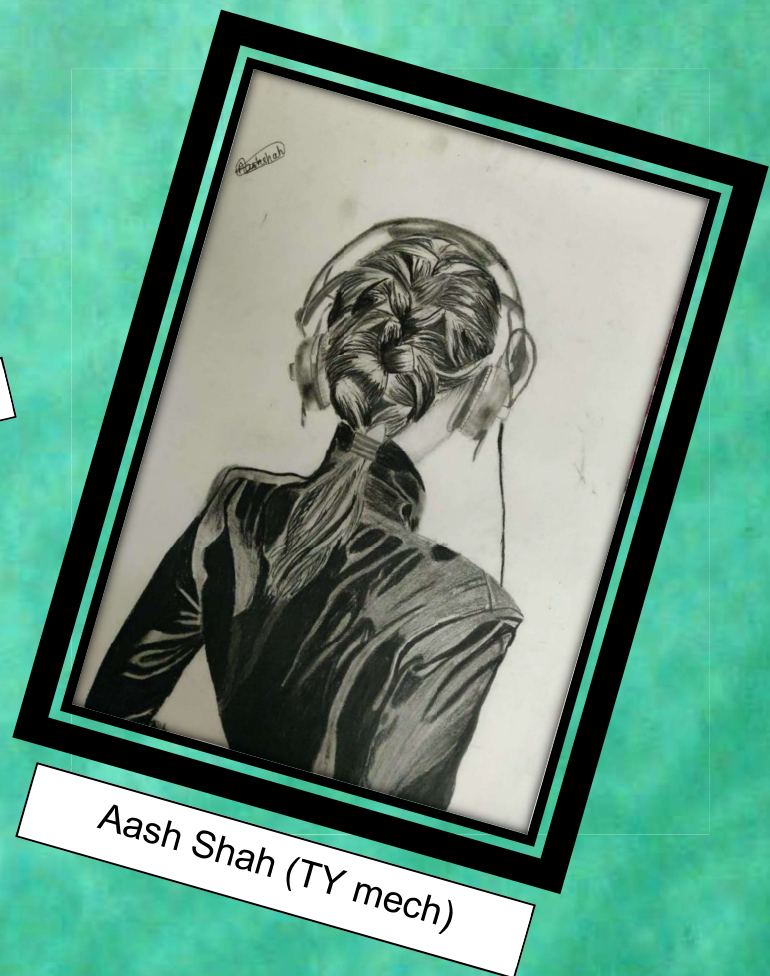
Trees control climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Trees also preserve warmth by providing a screen from harsh wind. In addition to influencing wind speed and direction, they shield us from the downfall of rain, sleet and hail. Trees also lower the air temperature and reduce the heat intensity of the greenhouse effect by maintaining low levels of carbon dioxide.

Due to all these reasons, as a small start, a tree was planted in front of SPCE boys' hostel. We as MESA and Hostilities pledge to take care of this sapling.

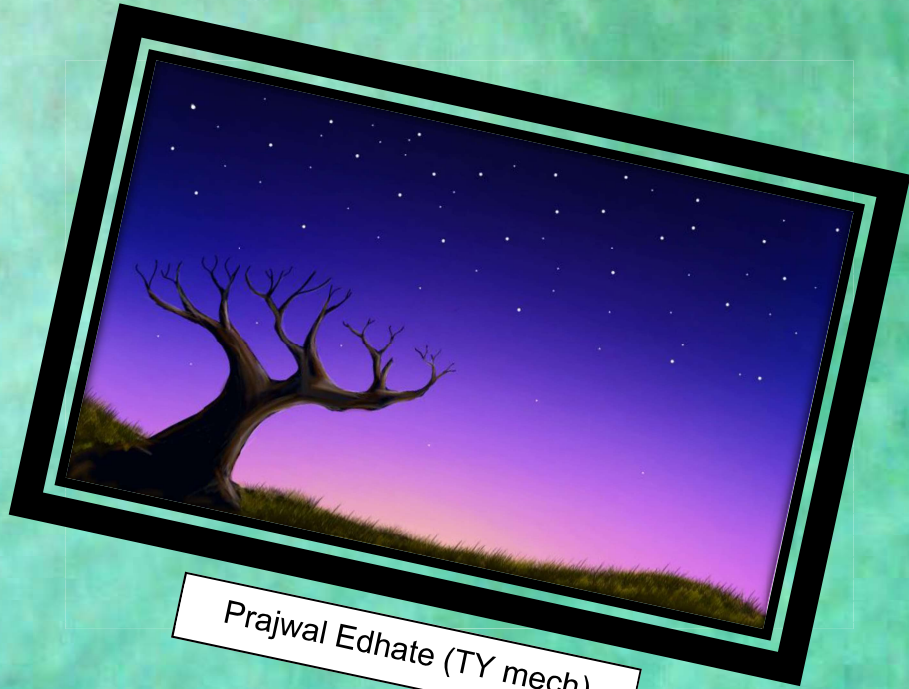




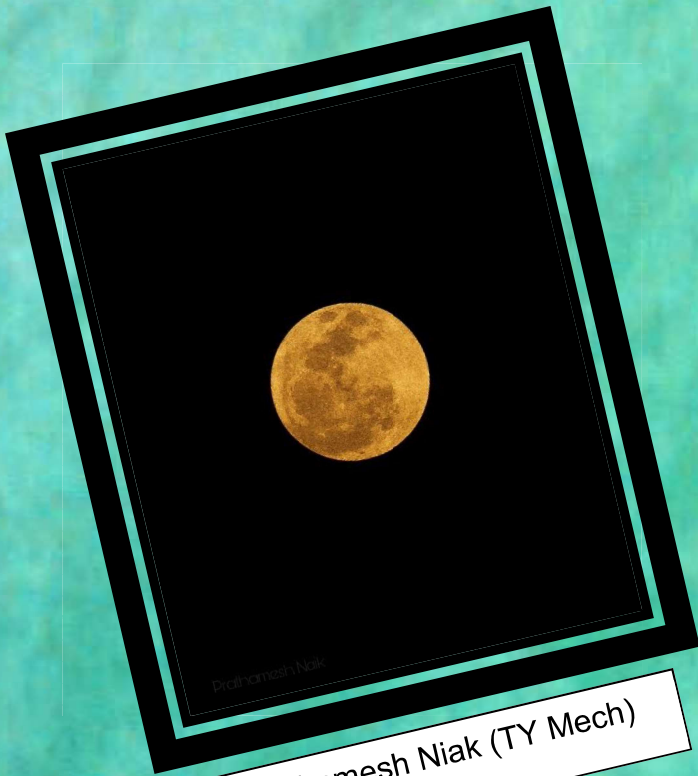
# Unique clicks and Artworks







Prajwal Edhate (TY mech)



Prathamesh Niak (TY Mech)



Anuj Mahadeshwar (TY mech)





Adesh Koli (Ty mech)



Anui Mahadeshwar (TY Mech)

Cover photos by Het Padachh and sketch by Aash Shah



## MESA Committee 18-19

**General secretary:** Adesh koli

**Co-General secretary:** Archit Katare

**Treasurer:** Urja Bhosekar

**Co-Treasurer:** Nayan Dalvi

**Head of Events:** Pranav Parkar

**Co-Head of Events:** Chintan Shah

**Sports secretary:** Hrishikesh Jadhav

Hrishikesh Kamble

Shivani Mohite

**Magazine Secretary:** Anuj Mahadeshwar

**Faculty incharge:** Megha Janbandhu

