



Mechanical Engineering Department

Newsletter: 2020-21
Issue 01



From the desk of Department Head

INSIDE THIS ISSUE:

Program organized	2
Program organized by Professional Societies	9
Result Analysis	11
Student's Achievement	12
Placement Details	14
Industrial Visit	14

It is pleasure to release this issue (2020/21, issue 1) of department e-newsletter. Last semester propelled in its usual pace till March 2020, then we were under lockdown due to COVID19 and continued teaching-learning through online mode. Subsequently this semester also continued and completed through online mode. However, based on previous semester's experience we made entire online teaching-learning activities more effective during this semester. Converting problems into opportunities, this time EXODIA, our flagship event of ASME students' section was organized in fully online mode and it was a great success. Congratulations to entire student team and faculty mentors. Hope soon we can change over from virtual to actual and from online to offline.



Editor's Note

"Life is neither static nor unchanging. With no individuality, there can be no change, no adaptation and, in an inherently changing world, any species unable to adapt is also doomed" - **Jean M. Auel**. Very rightly said by Ms. Jean regarding adaptation of new phase. During the current semester, we started all the teaching learning activities via Online Mode. And I must appreciate all the individuals, who made it possible effectively instead of many challenges. This time we initiated a new "Fun Learning Activity" week, to break the monotony of continuous e-learning. Also we tried to do curricular activities like industrial visit, exams, quizzes etc. through online mode. Student coordinators of various technical societies of institute like ASME-GCET SS, ISTE etc. organized online technical events. Our young innovators and creative minds have worked very hard on their ideas & project and have received appreciation for the same. I am very happy to share this edition of newsletter, with all the activities that we conducted with 'New Normal'.

Programs Organized during Fun Learning Week

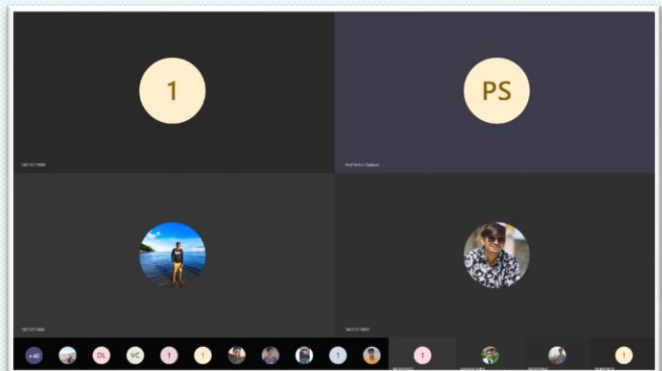
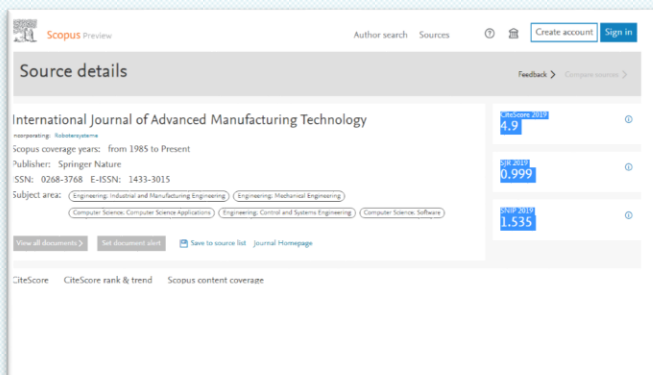
1. Talk on "Life is a Canvas"

Mr. Shashank Bhardwaj delivered a talk on the topic "Life is a Canvas". He discussed managing relationships, health, immunity, communication. He also told the qualities that should be possessed by a student. He also encouraged the students to practice Yoga, Pranayama, and Meditation. 48 students of second-year mechanical attended the lecture.



“Spiritual love is when you see new faces as the oldest.”
— Michael Bassey Johnson

2. Talk on “How to select a journal for research paper publication?”



Prof. Mihir Solanki, delivered a talk regarding selection of journal for publication. Nowadays many journals are now available in market, hence it becomes difficult for students to judge the best one for their work publication. Looking to this Prof. Mihir guided students of final and pre final year to select best journal for their work.

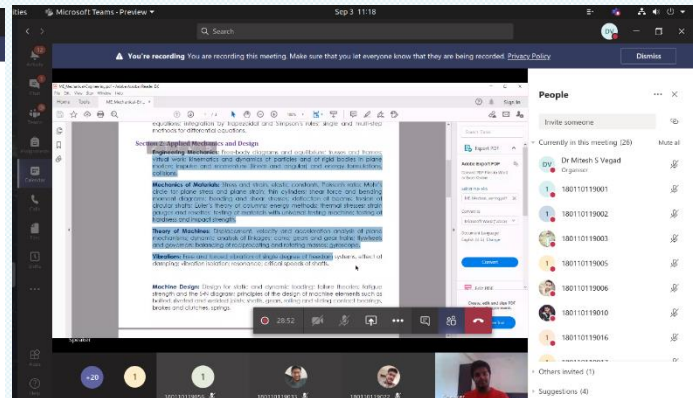
3. Expert Talk on “Research trends in Renewable energy sources”

An Expert Talk on "Research Trends in Renewable Energy Sources" was organized by Prof. Ravi Rathod for 3rd Year students of the Mechanical Engineering Department. The expert for the session was Mr. Shreelal Jha, who has been working in renewable energy for many years. He has received many awards from government bodies for his innovative works. He also has registered patents on his name for his inventions.



4. Alumni Talk on “Entrepreneurship: Opportunities and Challenges”

Under aegis of CVMU: ESII Cell, G H Patel College of Engineering & Technology, V V Nagar organized an expert talk on Entrepreneurship: Opportunities and Challenges by Mr Mudit Trivedi. Mr Mudit Trivedi is a GCET alumni and graduated from Mechanical Engineering department in the year 2014. He has completed his masters from Vellore Institute of Technology with specialization in CAD/CAM. Subsequently he started his own firm Rapid Tech Solutions specializing in providing design solutions and 3D printing solutions. Mr. Mudit highlighted the need of having the right attitude, perseverance, extra reading in life. He talked about the ways of securing funding for a start-up and stressed on knowing about all the different schemes run by state and central government for supporting startups.



“We assimilate a little this way, and a little that way. Life is only mutation.”

— Gretel Ehrlich

5. Expert Talk on “Radiator Manufacturing”

An expert talk on “Radiators Manufacturing” was organized on 3rd September 2020, Thursday at 2:00 pm by Prof. Sukritindra Soni in the Mechanical Engineering Department. The talk was delivered by Mr. Bhaskar Anand, Manager at Valeo India Private Limited. In his talk, he discussed throughout the process and important considerations in the manufacturing of heat exchangers. He also discussed future electric vehicles and the growing artificial intelligence and machine learning role in the automotive industry.

Bhaskar Anand

Valeo India Private Limited

<https://www.valeo.com/en/>

Process and method manager, TPT, India



6. Interactive Talk on “Relevance of Theoretical Curriculum in Industry”

An interactive session was organized for Third year undergraduate students in which the speaker Mr. Bhavik Patel shared his Industry experience. Speaker discussed the relevance of theoretical curriculum in industry. Students asked questions related to different subjects that might be helpful in the industry.



Mr. Bhavik Patel did his B.E (Mechanical Engineering) from G H Patel College of Engineering & Technology in year 2010. He got placed in L&T as Graduate Engineer Trainee. He worked in L&T for 3 years as project engineer. There he handled project management assignments for one of the oil and gas project in Karnataka. In year 2013, he joined Reliance Industries Jamnagar and have handled various assignments at Reliance like supply chain management, project management for petrochemical business. Currently he is working as a Sr. Manager and handling supply chain for composite material business for Reliance Industries Ltd Vadodara.

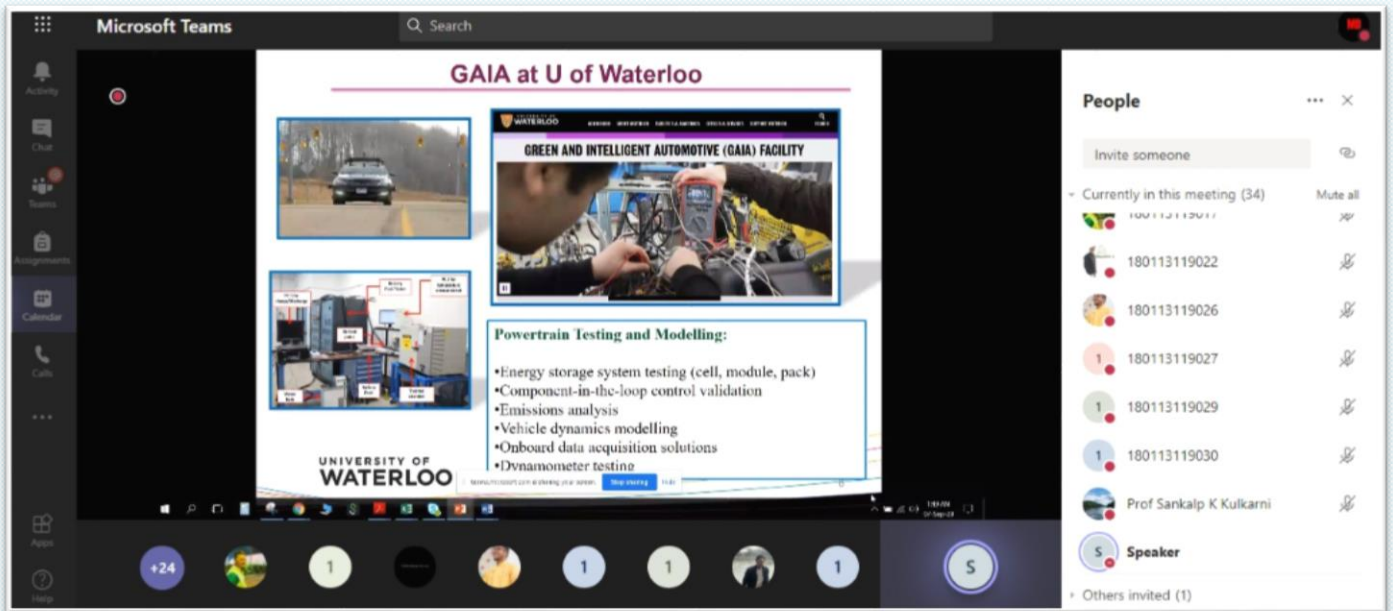


“Adaptability is a great asset to have because life is so unpredictable, and things can change overnight for any of us.”

-Chanda Kochhar

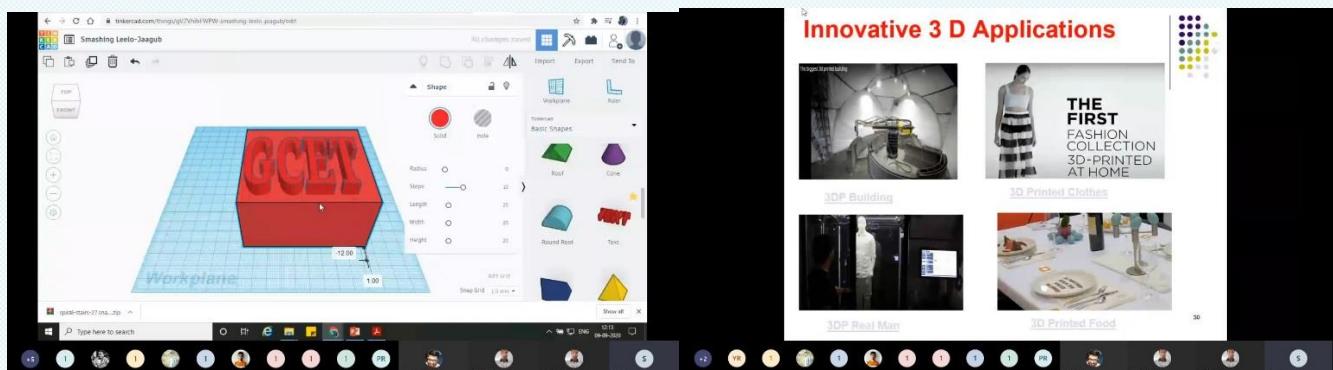
7. Expert Talk on “Fundamentals of Lithium-ion batteries and Electric Vehicle Modelling”

Expert talk by Dr. Satyam Panchal on “Fundamentals of Lithium-ion batteries and Electric Vehicle Modelling” was organized on Monday, 7th September 2020 from 11.00 am to 12.30 pm on MS Teams platform for the students of Final Year Mechanical Engineering. During the talk, Dr. Satyam had introduced the audience to various configurations of batteries used in electric vehicles and associated terminology. Highly advanced and sophisticated infrastructural and lab facilities at the University of Waterloo, the GAIA lab, in particular, were explained to the students and a variety of simulations and experiments he had carried out were discussed in detail. Students were also facilitated with guidance concerning preparations and procedures for pursuing masters at the University of Waterloo, Canada.



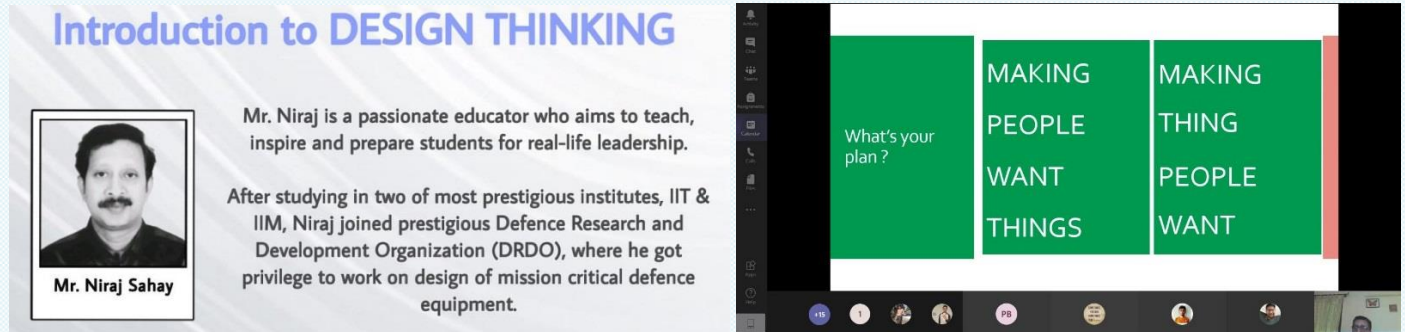
8. Expert Talk on “3D Printing”

An Expert Talk on "3-D Printing" was organized by Prof. Afzal Alad for 5th Semester students. The speaker for the talk was Mr. Shubham Awasthi from Government Engineering College, Banswara.



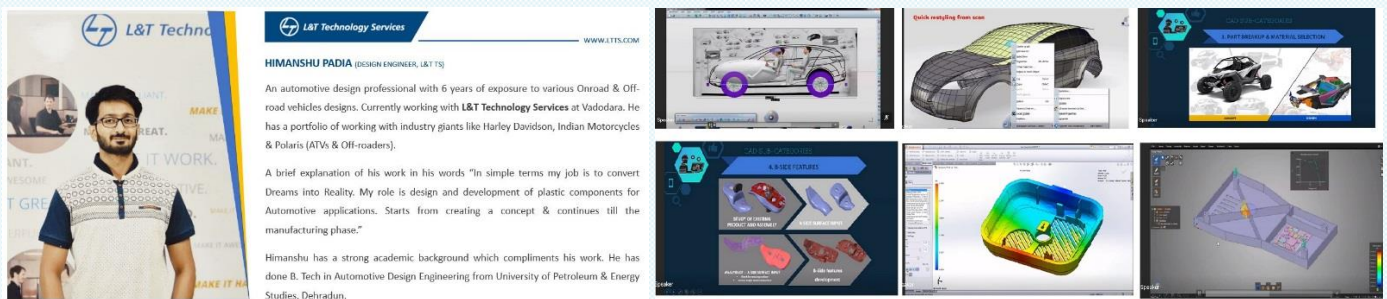
9. Expert Talk on “Design Thinking”

An expert talk was organized on 9th September 2020, on the theme of "Design Thinking". The talk was delivered by Mr. Niraj Sahay, an alumnus of IIMB and IITKGP, Niraj has 20+ years of expertise in working with Government, MNC, and startups. The talk covered the basic pillars of Design Thinking i.e Empathy, Ideation, Prototyping, observations, etc. Students of second-year Mechanical Engineering learned the fundamentals of Design Philosophy.



10. Expert Talk on “Automotive Plastic Design”

An expert talk on “Automotive Plastic Design” was organized on 9th September 2020, Wednesday at 11:00 am for two hours duration by Prof. Sukritindra Soni, Asst. Prof, Mechanical Engineering Department. The talk was delivered by Mr. Himanshu Padia, Design Engineer at L&T Technology Services, Vadodara. In his talk he delivered the insight and detail of Automotive plastics Product Development he also focused on the life cycle of the parts, starting from sketching the concept to the manufacturing phase. The in-depth explanation of these industry exposures provided an extra edge to the students.

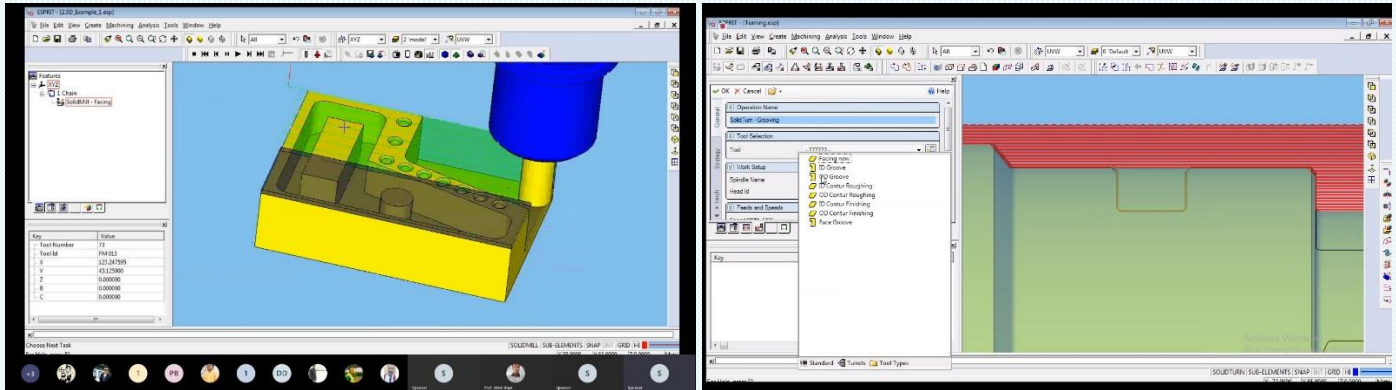


“We have been winning running barefoot, imagine what would happen if we had spikes, a nutritionist and a coach we would break records.”

- Sope Agbelusi

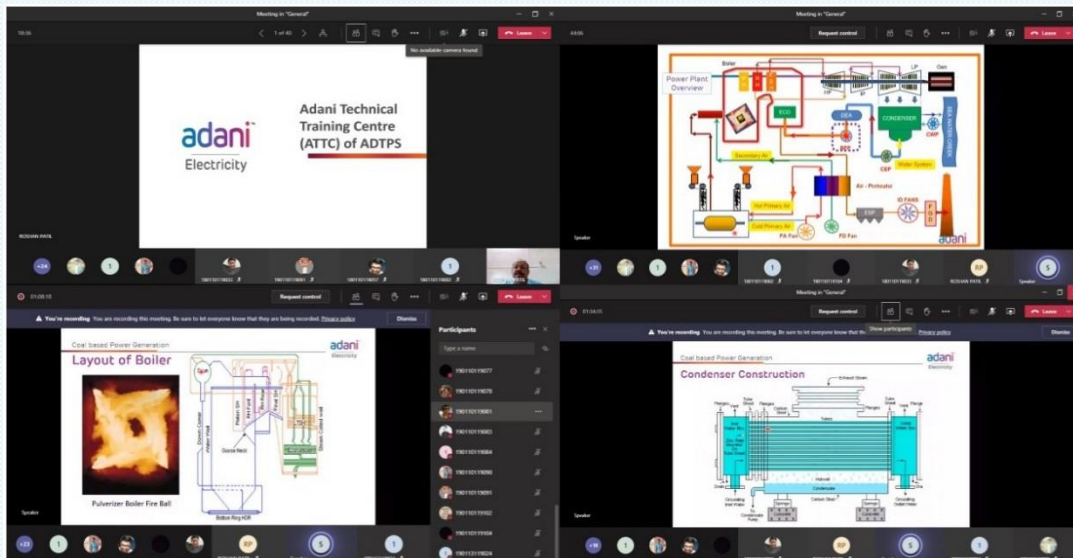
11. Expert Talk on “Manufacturing Processes & ESPRIT CAM Software”

An Expert Talk on "Manufacturing Processes & ESPRIT CAM Software" was organized by Prof. Afzal Alad for 7th Semester students. During the talk sir explained all the tools of software and its approach in industry.



12. Expert Talk on “Coal to Electricity Cycle”

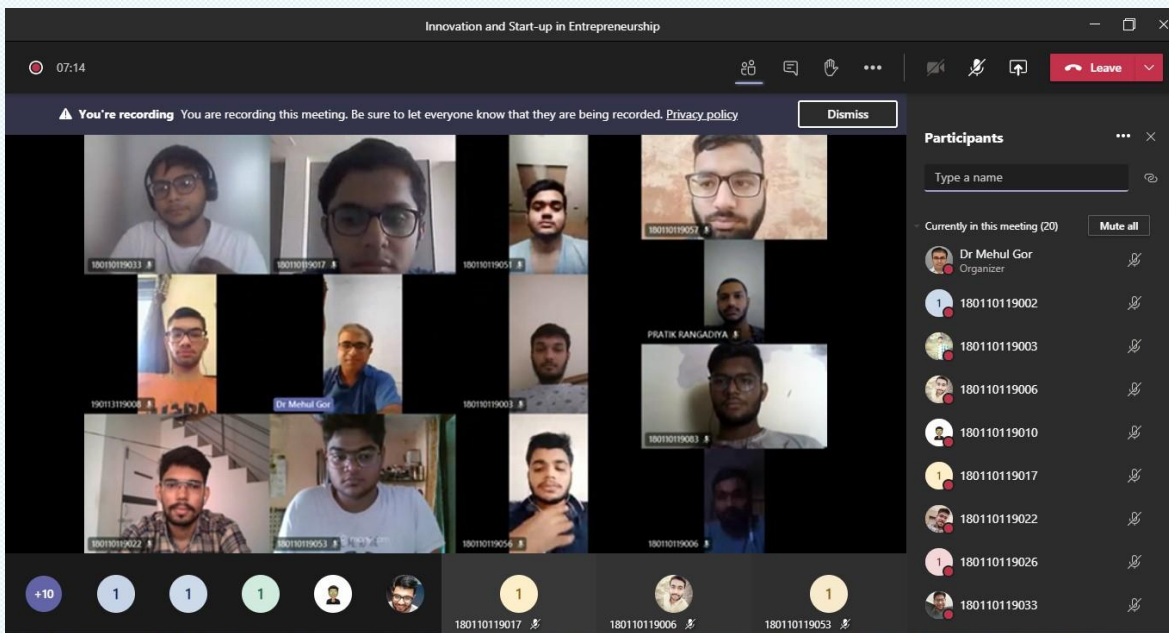
An Expert Talk by Mr. Paresh Parhi, DGM (Mechanical) Adani Dahanu Thermal Power Station, on "Coal to Electricity Cycle" was organized on 14th September 2020, 11.00 am to 1.00 pm for third and second Year Mechanical students. 38 students took advantage of the same. The speaker talked about the steam-based power plant in detail. After the talk, there was a Q & A session in which students could clear their doubts.



“It is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to change.” -Charles Darwin

13.SSIP Awareness Webinar:"Innovation and Start-up in Entrepreneurship"

A webinar was organized by Dr. Mehul Gor under SSIP on "Innovation and Start-up in Entrepreneurship" on 4th September 2020. Innovation is the key to success in business. Any start-up with innovative ideas can get success. In this webinar, students were getting acquainted with the terms innovation, start-up, and entrepreneurship. Qualities required to be a successful entrepreneur are discussed in detail. The difference between job and business also discussed. In the end, the Student Startups and Innovation Policy (SSIP) is discussed. SSIP is the initiative of the Government of Gujarat that aims to promote institute based ecosystems to support innovations and ideas of young students and provide a conducive environment for properly harnessing their creative pursuit. Awareness of this policy is spread through this seminar. Students were guided to grab this opportunity and motivated to apply for SSIP funds.



14. Talks delivered by internal faculties during Fun Learning Week

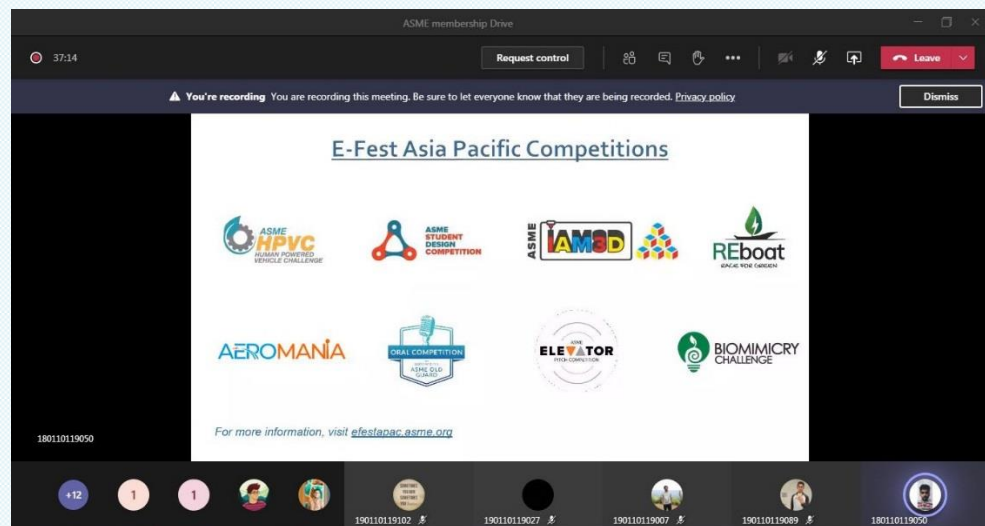
Our internal faculties delivered talks of their respective technical domains, also some of them shared views on non-technical domain. **Prof. Darshak Desai** talked on Skill enhancement and Mining operation. **Prof. Mukesh Bulsara** discussed on topics like career in Mechanical engineering and Existance of God. **Prof. Hemant Thakkar** interacted with students on tech and non-tech both, his topics were standardization, patent search and expression of views. **Prof. Vivek Deshpande**, groomed students on life skills, he spoke on habits of successful people and body language by **Prof. Mehul Gor** put his insight on Innovation and entrepreneurship. **Prof. Ela Jha** conducted an interactive session on Metallurgy. **Prof. Smita Joshi** shared some glimpses from her expertise on Solar Energy. **Prof. Mitesh Vegad** delivered a talk on Numerical Heat Transfer. **Prof. Nitin Patel & Prof. Faiju Malek** conducted live G.K. Quiz for all the level students. Apart from this, there were many other entertaining performances and talks organized centrally for all the students of Institute.

Program organized by Professional Societies

“Human beings can get used to virtually anything, given plenty of time and no choice in the matter whatsoever.”
— Tom Holt,
Open Sesame

1. ASME-Membership Drive

ASME-Membership Drive was conducted by Mr. Vasu Kukadiya (Third Year Mechanical), Chairperson of the ASME Student Section via Online mode using MS Teams Software. The Drive was organized to address students of Second Year Mechanical Engineering. The students were made aware of ASME society and activities that are done under the section at our college and also at the international level. Mr. Vasu also explained the benefits of taking ASME membership.



2. ASME- Innovative Prototype Design Challenge



THIS N-95 Mask is ACCESSIBLE because this comes with a “MICROPHONE and SPEAKER”

The Microphone comes placed inside the mask receive the voice and Amplify of small scale and powers the output SPEAKER attached with outside wall of mask that wont drain much battery as well as can be RE-CHARGED easily.

This will help speaker as well as listener ~

SPEAKER don't need to make much efforts to speak and also LISTENER can listen the voice of SPEAKER very easily .

So this will surely help in improvising the conversation and also maintaining the social distance via covering FACE.

An Innovative Design Challenge was introduced first time by the ASME Student section. In this COVID '19 pandemic a refreshment extravaganza was needed for the students to showcase their design skills and by considering that, this design challenge provides a very good platform for

students to engage themselves in different CAD software. ASME Student section is always looking forward to grasp every opportunity and thereby in the situation like this where students are taking their valuable education in the online mode, so taking this as a different opportunity we have created a design challenge for the students. The topic of this challenge is “INNOVATIVE HEALTH CARE PRODUCTS “ which can be used in the fight against the coronavirus which is an invisible enemy of the human race and we have to fight with it with the help of application of engineering principles and by innovating new products for the welfare of the human race.

3. ASME- e-Exodia '20

GCET ASME Student Section organizes a mini-tech fest every year to mark the importance of technology and student development activity. Due to corona pandemic this year it was impossible to organize Exodia physically. Overcoming all the challenges, first time ever in GCET an e-Techfest was organized this year. It is really important to understand the effect this pandemic has made on our day-to-day life. While the humans have made significant progress in sectors like telecommunications, food processing, transportation, space etc. newer challenges in terms of automation, robotics, and environment degradation are coming up. Observing the world wide situation of pandemic due to the Novel Corona Virus or COVID-19, the innovation and technology has adapted to a new normal in it. The world now is working behind the doors of their houses on the screen. Keeping all these things in mind, this year's theme was 'E-Fest: Embracing the New Normal.'

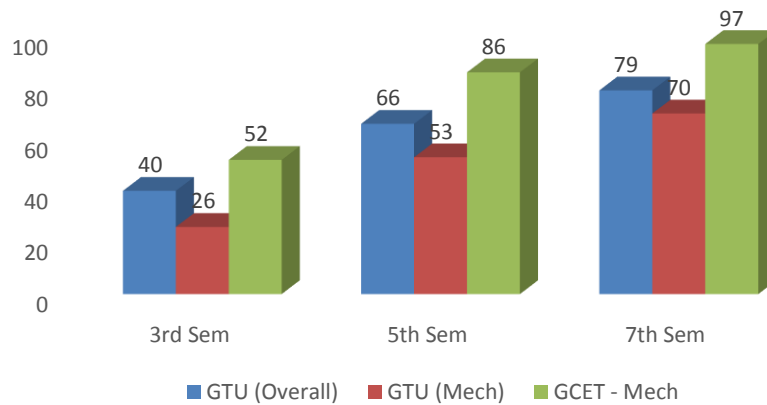
“All fixed set patterns are incapable of adaptability or pliability. The truth is outside of all fixed patterns.”

— Bruce Lee



Result analysis

Winter 2020 Result Analysis



Institute top Performers in GTU Summer 2020



**Barot Vivekkumar
Rajeshbhai**
9.42 CPI in Sem 1st



Bhatt Vrushank Amit
190110119007
10 SPI in Sem 2nd



**Kachwala Mustufa
Hasanali**
190110119027
10 SPI in Sem 2nd



**Bhakhar Daksh
Harehbhai**
180110119006
9.74 SPI in Sem 4th



**Jadhav Shubhankar
Rajendra**
9.37 CPI in Sem 1st



Bhatt Mohit Girishbhai
170110119007
9.91 SPI in Sem 6th



**Vavadiya Kevalkumar
Rameshbhai**
170110119123
9.85 SPI in Sem 6th



**Das Sagarika
Bibhutilal**
170110119015
9.55 SPI in Sem 6th

“All failure is failure to adapt, all success is successful adaptation.”

-Max McKeown

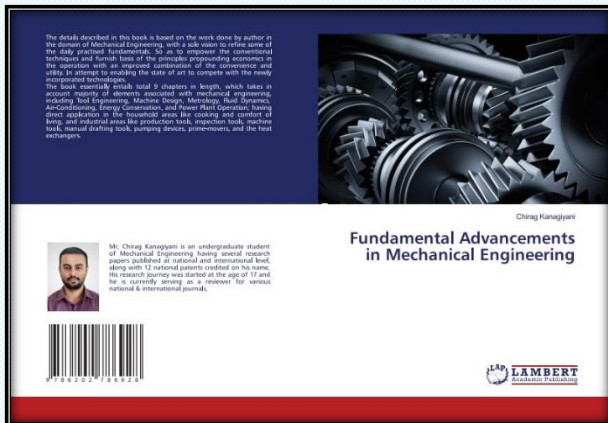


1. Mr. Mitesh Jayeshbhai Maru filed a Indian Patent

Mr. Mitesh Maru (190110119036), Student of the Second year, Mechanical Engineering Department has received an SSIP grant of 20,000 INR for his innovative proposed work on "Automatic Touchless Urinal Flushing System" by GTU Innovation Council. He also filed an Indian Patent for the same.

2. Ms. Nidhi Desai filed a Indian Patent

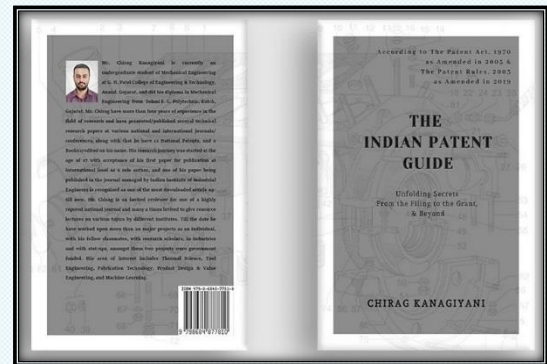
To fight against the pandemic situation, final year student of the Mechanical engineering department, Ms. Nidhi Desai (170110119020) has designed a "Soap dispenser with Intelligent laser wash technology". Her innovative work has been filed for Indian patent.



3. Books published by Mr. Chirag Kanagiya

Mr. Chirag Kanagiya (Enrollment No.170113119009) final year pass out student of the Mechanical engineering department has published 2(two) books. Entitled "Fundamental Advancements in Mechanical Engineering" ISBN No. 978-60-2-78692-8 published with Lambert academic publishing, which concludes his learning outcomes from mechanical engineering.

And "The Indian patent Guide", ISBN: 979-8-6848-7781-0. The book describes law Governing prosecution of the patents in India, constituting essential details relating to stages of a patent from the preparation of the draft, to the registration of the application, assessment of the application, award, and maintenance; in the view of current administrative law of patent in India.



"Those who cannot change their minds cannot change anything."

— George Bernard Shaw

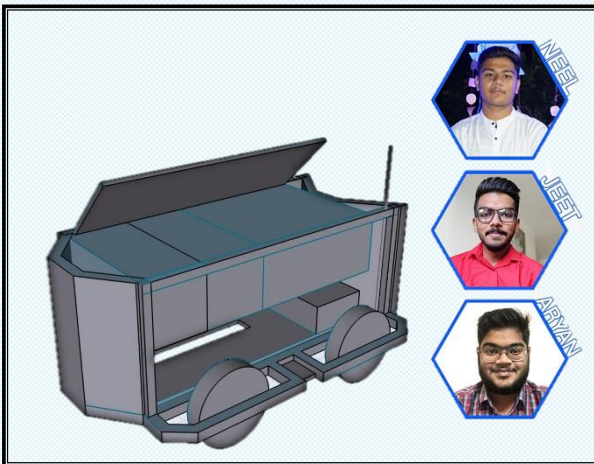
4. GCET Alumni Mr. Bhatt Sanket received 2 awards at NIT Surathkal

GCET Alumni Mr. Bhatt Sanket passed out student of 2013 Batch has received 2 awards at the 18th Convocation of NIT Surathkal. He received Institute Gold Medal from Shri Sanjay Dhotre(Hon. Union Minister of State for Education, Govt. of India) for the highest cumulative score. He also received Dr. B S Samaga Award for best academic performance in Thermal Engineering (M.Tech) and Mechanical Department of the Institute.



5. First Runner-Up In International Robocon , India

Mr Pranav Patel (170113119017), student of final year mechanical engineering department along with his team of Gujarat technological university has bagged first runner up prize in judges category award at ABU ROBOCON FESTIVAL , organised by Asian pacific union broadcast, virtually held at Tokyo. Students of more than eleven countries like China, Japan, Taiwan and Indonesia have participated in this competition. In a robot rugby competition, the team has scored 4 goals in 70 seconds.



6. Third Year students bagged GTU SSIP grant of 1.46 lakhs

Mr. Neel Patel, Mr. Jeet Chaliawala and Mr. Aryan Macwan; students of third year Mechanical Engineering Department have received a SSIP grant of 1.46 lakhs from GTU for their innovation “Krishimani: An Automated Multifunctional Seed Sower”. Krishimani is an environmentally friendly sower as it runs on rechargeable batteries which causes no pollution and harm to nature.

“If you always do what you've always done, you'll always get what you always got.”

— James P. Lewis

Placement Details

Total number of company visited	Total Number of Students Placed
05	10



Virtual Industrial Visits

Sr. No	Date	Place	Year	Faculty
1	02/09/2020	Supernova Technologies, Vitthal Udyognagar	Third	Prof. Ravi Rathod
2	03/09/2020	Valeo India Private Limited. Sanand, Ahmedabad	Final	Prof. Sukritindra Soni
3	10/09/2020	Precision Foods, Surat	Second	Prof. Sankalp Kulkarni

“Life isn't about waiting for the storm to pass. It's about learning how to dance in the rain.”

-Vivian Greene

From Alumnae



Mr. Pratik Ramrakhiani
BE Mechanical Engineering
(2017-2020)

Myself, Pratik Ramrakhiani, an alumni of BE Mechanical Engineering 2017-2020 batch.

Currently I am working with Torrent power, AMGEN in operation department as a graduate engineer trainee.

According to me, GCET is one of the best institute in Gujarat for excelling in various fields of engineering. Be it quality teaching, supportive staff, good labs and imparting knowledge, GCET provides the best resources to their students in all aspects.

College Environment is also good and students are also provided with various platforms to learn and grow in their respective fields.