



# MECHANICAL EXPRESS

ACADEMIC YEAR 2022-23

YEARLY NEWSLETTER OF MECHANICAL ENGINEERING DEPARTMENT





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# HOD'S DESK



Greetings to all!

The academic year 22-23 started off on a positive note, with everyone returning to their normal routines and embracing the new opportunities ahead.

A remarkable achievement of this academic year was the establishment of the Danfoss Centre of Excellence within our department. Danfoss, a renowned leader in the Hydraulics industry, partnered with us to create this centre, which aims to equip students with in-depth knowledge of the complex field of Hydraulics. Looking forward, we have plans to introduce electives for students across all branches in the upcoming academic year, providing them with even more diverse learning opportunities.

In November, we had the privilege of welcoming a team from the National Board of Accreditation (NBA). They thoroughly evaluated our department across various parameters and were highly satisfied with our progress. As a result, we were granted accreditation for three years in the Tier-I category, reflecting our commitment to excellence.

Our college's BAJA team, known as Team Zenith, participated in the annual BAJA SAE India Competition, held in Pithampur. I'm thrilled to share that they excelled in the competition, securing the 6th rank overall at the All-India Level. It was a proud moment for our college and a testament to the dedication and hard work of our team.

The ASME Cummins Student Chapter, an esteemed organization affiliated with the American Society of Mechanical Engineers, had a fantastic year. They organized numerous lectures and industrial visits, providing valuable insights to our students. One standout event was a workshop dedicated entirely to Gas Turbines, where industry

veterans shared their expertise. This event garnered a positive response from the student community and contributed significantly to their learning experience.

In February, we established a student chapter of ASHRAE (American Society of Heating, Refrigerating & Air Conditioning Engineers). Since its inception, the chapter has organized several guest lectures and visits, enriching the educational journey of our students.

During the second semester, we hosted our Annual College Technical Festival, "Innovation." It featured two captivating events called Eureka and Engineer's Monopoly, conceptualized by brilliant students from our department. Both events received an overwhelming response from participants, captivating not only our

own college students but also our esteemed faculty members. I'm delighted to share that this year, all eligible students secured placements in leading multinational corporations such as Boeing, Eaton, Caterpillar, Tata Motors, to name a few, with attractive packages. Additionally, our six-month internship program achieved great success, with nearly 30 students securing paid internships across various organizations.

As we look ahead to the year 2023-24, we anticipate another eventful year filled with new initiatives and programs.

***Best Wishes to All for a Bright Future.***

***Dr. Gautam Chandekar  
HOD, Dept. of Mech Engg.***



# OUR TEAM



**Dr. Gautam Chandekar**  
HOD, MECH



**Prof. Poonam Bhore**  
Faculty Advisor

## Literature Team



**Akshata Vaditake**  
Editor, Final Year



**Sharvari Kulkarni**  
Team Lead, Final Year



**Shreya Vijith**  
Team Lead, Final Year



**Shivani Pandit**  
Editor, Final Year



**Sai Phate**  
Assistant Editor, T.Y.



**Prachi Shinde**  
Assistant Editor, T.Y.

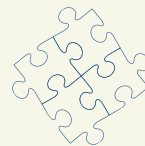


**Rutuja Bobade**  
Assistant Editor, T.Y.



**Tanvee Kulkarni**  
Assistant Editor, S.Y.

## Design Team



**Adishri Desai**  
Team Member, Final Year



**Poojal Bhoi**  
Team Member, Final Year



**Prajakta Joshi**  
Team Lead, Final Year



**Khushboo Agarwal**  
Team Member, Final Year



**Aboli Pakhale**  
Team Member, T.Y.



**Aishwarya Ambarkar**  
Team Member, T.Y.



**Vaishnavi Shirsath**  
Team Member, T.Y.



**Shreya Jadhav**  
Team Member, T.Y.

# WORD FROM TEAM

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Dear Readers,  
Mechanical Express Edition 11 is back, and we can't wait to take a trip down the memory lane as the A.Y. 2022-23 concludes. Our team has enjoyed summarizing all the Department happenings over the past year and we're sure reading all articles and interviews would be equally interesting for everyone. Professional bodies and clubs under our Department continue to demonstrate their active participation by conducting many events. This year's edition also includes contributions of students, from our

Department, participating in newly formed technical teams. The most sought-after section of our newsletter - Alumnae & Industry expert interviews continue to inspire our students. As always, students and faculty achievements make our Department proud. We sincerely thank all students and faculty members for their constant support in making this year's newsletter a compilation to cherish forever. We thank Poonam ma'am for her support and guidance throughout, and the entire department for making Mechanical Express a huge success. ***Happy reading!!!***

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## DEPARTMENT VISION

To be recognized as a Centre for quality education to develop women professionals in Mechanical Engineering.

## DEPARTMENT MISSION

- 1.To impart knowledge and skills in the field of Mechanical Engineering.
- 2.To develop Mechanical Engineers with professional ethics, who will respond to
- 3.The current and future needs of society through academic, industrial, and research activities.
4. Develop facilities for higher education and promote research activities.





# INNOVATION 2023



*Launch of Innovation*



*Inauguration of Innovation*



*Students playing Engineers Monopoly at Innovation'23*



*Students during the Eureka competition at Innovation*



# INNOVATION 2023

Innovation 2023 – the annual Technical Fest at MKSSS's Cummins College of Engineering, Pune took place on the 17th and 18th of February 2023. It was a major success marked by students and their quick thinking, analytical abilities and the application of engineering academia in real life problems. The Mechanical Engineering Department hosted two events – Eureka and The Engineer's Monopoly – planned and executed to perfection.

The Engineer's Monopoly was a life size, walkable version of the game we all know and love with a twist – assembling parts and components in the shortest possible time. This event was an opportunity to test both business skills and engineering abilities. It was a fusion of monetary dealings and challenging tasks followed by building a hands-on assembly in limited time. The event had rules for Auction – bidding for components; Question – answering questions based on basic Mechanical Engineering knowledge; Chance and even Jail blocks! The students were ultimately judged based on the time it took for assembly,

Monopoly points and the cash in hand remaining. The game was action-packed, entertaining and put both the fundamentals and practical potential to the test.

Eureka was an opportunity to think beyond and innovate. A theme was provided to participants 3 weeks before the presentation providing them with ample time to innovate, improvise, ideate technology, applications or machine under the guidance of industry mentors. They were not restricted by problem statements so as to let their creativity run wild! The brainstormed ideas and designs were shortlisted after mentoring sessions and the final “Concept Design” was presented to a panel of judges on the day of the event. In the end, the presentations were judged based on the creativity and novelty of the idea, presentation of the concept .



*Volunteers and organizers at the event*

# INNOVATION 2023

design, the integration of software and hardware and the representation of the machine. IA special mention to the Platinum Sponsor – CUMMINS INDIA and the Gold Sponsor – CISCO! All in all, this technical fest gave students from many engineering colleges, including our own, the chance to showcase their talents in a technical setting and wouldn't have been possible with the collaborative efforts of both students and faculty members alike.

Along with Innovation, Pentacle the annual Sports Fest at MKSSS's Cummins College of Engineering, Pune took place. There were inter-college tournaments for Basketball and Football and intra-college tournaments for Throwball and Dodgeball with enthusiastic participants displaying sportsman spirit and excellent teamwork. Although there were hard lessons learned along the way, the teams look forward to coming back even stronger next year!



*Participants presenting their ideas to the panel and audience*



*Participants during the event*

## Facts

**The first 3D-printed car, called the Strati, was created by Local Motors in 2014. It took just 44 hours to print and assemble the entire vehicle.**

**The world's first programmable computer, the Z3, was developed by German engineer Konrad Zuse in 1941. It utilized electromechanical relays and paved the way for modern computing.**



# INNOVATION 2023

## List of Winners

### Eureka

Position	Name	College Name
Winner	Vaibhavi Shetti, Bakul Moghe, Shruti Jog, Deepali Jadhav	MKSSSS's Cummins College of Engineering for Women, Pune
1st Runner Up	Vrishita Gharte, Rhuta Akolkar, Geetanjali Chivukula, Ketaki Kulkarni	
2nd Runner Up	Maithili Deshpande, Gargi Bhonde, Yadnya Vyavahare, Neha Vaidya	

### The Engineer's Monopoly

Winners	Name	College Name
Slot 1	Gauri Nafade, Rasika Patil	MKSSSS's Cummins College of Engineering for Women Pune
Slot 2	Surabhi Sangale, Apurva Palange	
Slot 3	Saee Gade, Nisha Rinde	
Slot 4	Chinmayee Randive, Richa Rathi	
Slot 5	Samruddhi Jambhale, Priyanka Sahani	
Slot 6	Gayatri Sane, Sadhana Motaparti	
Slot 7	Shruti Deo, Vaishnavi Gaikwad	
Slot 8	Adishri Desai, Rutuja Deshpande	
Slot 9	Arya Deshmukh, Anushka Karwa	

*~By Shivani Pandit  
(Final Year, Mechanical)*

# TEAM ZENITH 9.0 (BAJA)



The Baja competition organized by the Society of Automotive Engineers or SAE, is an opportunity for mechanical engineers to delve into innovation and experience to build an All-Terrain Vehicle and race it against other teams of the country. This is a national level competition, and undergraduate college teams from across India, build ATVs designed to stand the test of the weather, the terrain and many more challenges posed every year. For many years, National Automotive Testing Tracks or NATRAX, has been hosting this event in Pithampur, Madhya Pradesh.

## **ABOUT TEAM ZENITH:**

Team Zenith is the college's very own Baja team, and this is their 11th year of competing in Baja. It starts with 25 to 30 enthusiastic members, who want to work together to use their knowledge for a brand-new creation every year, and Cummins College has been a spectator of their success, year after year.

The team operates in 5 technical subsystems:

### **1. Chassis**

This includes the roll cage, body panels, seatbelts, and other attributes contributing to the framework.

### **2. Vehicle Dynamics**

Vehicle dynamics includes Suspensions and Steering, and these subsystems are responsible for the dynamic motion of the vehicle.

### **3. Powertrain**

Powertrain deals with power and transmission and acceleration of the vehicle.

### **4. Brakes**

Brakes deals with the braking of the vehicle, and the wheel hubs

### **5. Data Acquisition**

DAQ deals with validation of predicted and actual parameters with the help of electronic devices.

With these 5 subsystems, there are separate sections for

I. Cost

II. Sales

III. Sponsorship

IV. Manufacturing



About the BAJA 2022 season:

The competition was conducted in 3 phases:

Phase 1-Virtual statics

Phase 2-Virtual Dynamics

Phase 3 - Physical Dynamics

The first phase or Virtual Statics consisted of events like cost, sales, manufacturing, design etc., wherein the teams prepared a for a virtual round about their initial vehicle plan and presented to a panel of judges. The designs of the vehicle were done on Solidworks, Catia, Altair Hyperworks, Ansys, MATLAB, Adams softwares. Different types of simulations were performed for material and design selection.

In 2021, due to the Covid pandemic, the Baja event was conducted virtually on the IPG Carmaker software, and since 2022, it is the Phase 2 of the competition. Teams had to race their respective virtual models on virtual tracks provided. The different fixed parameters of the vehicle which govern motion of the vehicle were fixed initially, and the vehicle had to be run on different types of tracks like acceleration, suspension, maneuverability etc.

Between the 2nd and 3rd phase,



*Endurance race line-up at SAE Baja*

the manufacturing of the vehicle was completed, and testing was carried out to analyse the real time performance of the vehicle.

This is necessary for the driver to be comfortable with the vehicle, and to analyse the different failure possibilities which may occur. The number of required spares, assembly time, assembly ease etc. can also be predicted.

The third phase of Baja was held in Pithampur, Indore. The vehicle was shipped to Indore, and we saw the Baja event unfold in its full glory after 2 years.

This event was conducted across 4 days:

Day 0 – Inauguration

Day 1 – Technical Inspection and Virtual Finals

The team cleared the Technical Inspection on the first day itself. Out of the 80 teams present on-site, only 39 teams cleared

the TI. The team also had their CAE finals presentation and earned an AIR 3 rank.

Day 2 - Brake test and Virtuals Finals

The brake test is part of the dynamic TI, and this too was cleared in the second attempt. Design finals were also held, and the team secured AIR 4.

Day 3 - Maneuverability and Suspension & Traction

This was the first time, when the team successfully completed both attempts of the S&T track, without incurring any failure. It was also the hardest S&T track ever with 11 feet drop and extremely high gradeability. Manoeuvrability was also completed in two attempts.

Day 4 - Endurance race and Valedictory

The most awaited and Grand Endurance Race involves the vehicle completing a 2.5 km track in 4 hours, with pit stops only for refuelling of repairs. It is the ultimate test of the driver and the vehicle with rocks, logs, swampy areas, steep gradients etc. and the team finished this track successfully!

This is the second year of the successful racing of Team Zeniths' 4WD 'Blaze'. This includes many sleepless nights, working long hours in the college and so many more things which cannot be governed. Cummins College is indeed proud to have such students, working tirelessly with the core of their knowledge. Time and again, Team Zenith is proving that they are a force to be reckoned with, and they are not to be underestimated! Emerge Glorious! This year the team stood AIR 6, with the following ranks:



**Statics-**

**Design: AIR 3**

**Sales: AIR 5**

**Virtual Simulation: AIR 14**

**Virtual Dynamics: AIR 11**

**Maneuverability- AIR 9**

**Endurance- AIR 6**

**Engineering Design - AIR3**

**Overall Statics: AIR 2**

**Dynamics-**

**Acceleration: AIR 1**

**Sledge Pull: AIR 2**

**Endurance/Durability: AIR 8**

**Overall Dynamics: AIR 11**



## MEMBERS OF TEAM ZENITH (BAJA) 22-23

**Faculty Advisors: Prof Nitin Patil, Prof. Gautam Chandekar**

Sr.No	Name	Role	Class
1	Aditi Khaire	Captain, Suspension	Final Year Mech
2	Jui Bhasale	Vice-Captain, Transmission, CAE	S.Y.Mech
3	Samruddhi Ambavale	Driver, Brakes, Finance, CAE	Final Year, Mech
4	Neha Kolhe	Co-Driver, Steering, CAE, Sponsorship	Final Year, Mech
5	Anusha Patil	Rollcage, Manufacturing	Final Year, Mech
6	Yashaswi Gadekar	Transmission, CAE	Final Year, Mech
7	Sharvari Kadam	Transmission	Final Year, Mech
8	Nishigandha Bansode	Suspension, CAE, Manufacturing	T.Y.Mech
9	Prutha Deshmukh	Rollcage, CAE, Manufacturing	T.Y.Mech
10	Madhura Bartakke	Steering, CAE, Sponsorship	S.Y.Mech
11	Indrayani Naik	Transmission, Manufacturing	S.Y.Mech

Sr.No	Name	Role	Class
12	Aayushi Jagtap	Transmission, CAE, Sponsorship	S.Y.Mech
13	Siddhi Kolhe	Transmission, DAQ, Sponsorship	S.Y.E&TC
14	Sharvari Ghorpade	Treasurer, Brakes, CAE	S.Y.Mech
15	Tanaya Naik	Suspension, Sponsorship	S.Y.Mech
16	Ketaki Dharmadhikari	DAQ, Sponsorship, Manufacturing	S.Y.E&TC
17	Manasi Chaudhari	Roll cage, CAE, Manufacturing	S.Y.Mech
18	Sanika Kulkarni	Suspension, CAE	S.Y.Mech
19	Nikita Govardhan	Brakes, CAE	S.Y.Mech
20	Misbah Shaikh	DAQ, Manufacturing	S.Y.E&TC



*Team Zenith 9.0 at the SAE Baja 2022-23 Competition in Pithampur, Indore*

*~By Sai Phate (TY Mechanical)*

# TEAM BHARADWAJ



To most the sky's the limit...for us it's home

Team Bharadwaj is the Aeromodelling and Drone-Design team of MKSSS's Cummins College of Engineering. Team Bharadwaj designs & fabricates both regular class and micro class RC Aircrafts for the national level SAE DDC Competition annually. The team also participates in Drone Design and Ideation competitions like BIT Drone Techfest, MIT Udaan etc. Activities of the team in 2022-23: SAE DDC 2023 WORKSHOP: SAE DDC workshop was held from 20th to 21st January at Vellore Institute of Technology, Chennai.



SAE DDC 2023

The objective of this workshop was to brief students for the main

competition i.e., to design a fixed wing RC aircraft, practically. This was the last edition of the workshop held by SAE for 2022- 23, southern section around 30 teams from all over the country participated. The day started with the inauguration ceremony and other documentation. Later a lecture on basics of aircraft design was delivered.

Your Next, students got an opportunity to demonstrate their knowledge by fabricating a micro class RC. The required material, batteries, foam, stationary etc. was provided by the organizers. By the end of the day, all the teams were ready with their models for flight test. On the 2nd day, the students tried out simulator flying, followed by the testing of the actual model, fabricated the previous day. Team Bharadwaj had a very successful flight and landing as well! After all the teams completed their, test flights, the closing ceremony was





*SAE DDC Workshop*

held which included an address by the SAE DDC workshop was finally

concluded with a group photo.

Team Bharadwaj is the only all-girls team across the country participating in SAE DDC, and year after year they are astounding us with their splendid performance! The college and department will continue to support them in their future endeavors, and we wish them great success!

## ***MEMBERS OF TEAM BHARADWAJ 22-23***

***Faculty Advisor: Prof Nitin Patil***

<b>Name</b>	<b>Year</b>	<b>Branch</b>
Krishna Chavan	TY	Mechanical
Divyanshi Alok	TY	Mechanical
Shruti Chavan	TY	Mechanical
Mitali Diwekar	TY	Mechanical
Anwasha Sen	TY	Instrumentation
Gayatri Jadhav	TY	Mechanical
Shivani Patil	TY	E&TC
Aditi Sant	SY	Mechanical
Saloni Gaikwad	SY	Mechanical
Indraja Nene	SY	Mechanical
Nayyara Sayyad	SY	Mechanical
Sharayu Kondubhairy	SY	E&TC
Rhuta Akolkar	SYe	E&TC
Vaishnavi Pawar	SY	Mechanical



*Team Bharadwaj 2022-23*

*~ By Sai Phate (TY Mechanical)*

# TEAM ADIRA



Team Adira has had a constructive year. It is the official Formula Student team at MKSSS's Cummins College of Engineering for Women and the only all-girl team competing at the national level of Formula Bharat. The name ADIRA means 'Strong, Noble and Powerful' and this team certainly lives up to the sentiment. With a team of 30 members spanning all engineering disciplines they aim to achieve the common objective of designing and constructing a safe, formula-style race car. These enthusiasts work together in many different domains to make a mark in this particularly male dominant field and carve their name in the top positions of the Student Formula Race Competition. Formula Bharat is an Indian Formula Student-style engineering design competition in which students from colleges and universities all over the country, compete with a formula-style vehicle prototype in areas of

engineering design, overall cost, marketability and dynamic performance. The purpose of this competition is to encourage students to gain hands-on practical experience, while applying engineering theories studied in the classroom. Additionally, students learn management and teamwork skills. The challenge is to design and fabricate a prototype vehicle that best meets the goals and intents as stated per the Rule Book. Over the course of a five-day competition, a jury of experts from the motorsport, automotive and supplier industries judge the design, cost and business planning of the prototype and on-track performance scores to see how well it holds up under real life conditions.

The competition is divided into 2 categories - Static and Dynamic. With the ultimate goal of participating in the electric category, the team participated in

the combustion category static events in order to prove their mettle. This included qualifying as a first year team in the pandemic in the online event held this year.

This year Team Adira competed in the Formula Bharat Competition 2022-23 under the Class I Combustion Category and achieved an overall AIR 2. In addition, the team received an AIR 2 in the static events of Business Plan Presentation Deck and Concept Goals Management Report events. These achievements were possible with the support of Schaeffler India as the Main Sponsorship Partner and SolidWorks as their Licenced CAD Software Partner.

The engineering design event evaluates the team's engineering process and the effort that went into the vehicle design, in the form of a report and design specifications sheet. The team submitted all the technical data sheets and reports along with vehicle's designs which included 2D drawings, CAD models and simulations performed with results to make the car model run.

The cost and manufacturing event appraises the team's



*Achievements of Team Adira*

**Formula Bharat 2023 - Class 1  
Combustion Category Overall  
Rank: AIR 2**

**Business Plan Presentation  
Event : AIR 2**

**Concept Goals Management  
Event : AIR 2**

understanding of the manufacturing processes and costs associated with the construction of a prototype race car; such as trade off decisions between content and cost, make or buy and prototype vs mass production. The Business Plan Presentation reviews the business model the team creates to demonstrate their prototype race car. The executive summary



of the business plan and the comprehensive presentation must convince the judges aka the potential investors that it is a rewarding business opportunity. The team presented their business plan with the cost report and Engineering Design Q&A to a panel of judges and industrialists from all engineering domains. With teams participating from across the country as well as from Indonesia, Dubai and Bangladesh, Team has truly achieved

on a global stage. Looking ahead, next year Team Adira aims to compete in the Formula Bharat Class II Electric Category, providing teams with an opportunity to conceptualize, design and fabricate a Formula Student Electric Vehicle. As is the mission statement of this team, Team Adira and its members definitely do serve as an example of diligence, dedication, and team spirit.

## *MEMBERS OF TEAM ADIRA 2022-23*

*Faculty Advisor: Prof Nitin Palan (E&TC Dept)*

<b>Name</b>	<b>Position</b>	<b>Year &amp; Branch</b>
Anvi Shah	Captain	Final Year, Mech
Srushti Deore	Vice-Captain	Final Year, Mech
Neha Kulkarni	Chassis Head	Final Year, Mech
Pradnya Sonwalkar	Vehicle Dynamics Head	Final Year, Mech
Rutuja Deshpande	Transmission Head	Final Year, Mech
Ritavi Gaikwad	Brakes Head	Final Year, Mech
Sandipta Sahoo	Sponsorship Head	Final Year, E&

<b>Name</b>	<b>Position</b>	<b>Year &amp; Branch</b>
Sakshi Ghalpade	Data Acquisition Head	Final Year, E&TC
Sanskriti Gaikwad	Member	Final Year, Mech
Pratiksha Nalwade	Member	Final Year, Mech
Anuja Sardesai	Member	Final Year, Mech
Swarali Ghadge	Member	Final Year, Mech
Savi Gandewar	Member	Final Year, E&TC
Vaidehi Udapure	Member	T.Y., Comp
Pranjal Chouhan	Member	T.Y. Comp
Akanksha Pahurkar	Member	T.Y. Mech
Riddhi Pendse	Member	T.Y. Mech
Vismaya Mulay	Member	T.Y. E&TC



*Team Adira Members*

*~By Shivani Pandit  
(Final Year Mechanical)*

# TEAM SURYAKSH



## "Imagine, Drive, Shine", Team Suryaksh is ready to take on challenges

A solar vehicle is a vehicle powered by solar energy. Solar vehicles are equipped with solar panels that convert sunlight into electrical energy that can be used to power the vehicle's motors. Solar vehicles are not a new concept, but they have seen a resurgence in popularity in recent years due to advances in solar technology and the increasing concerns over climate change and the environment. To contribute to this field of technology, CCOEW has Team Suryaksh, our very own solar vehicle team.



*Glimpse of NSVC competition*

Although the team currently doesn't participate in competitions, the members are exploring various possible opportunities to implement their ideas.

Putting in more effort and upskilling themselves, the team looks forward to the two most exciting competitions- NSVC and ESVC. National Solar Vehicle Challenge (NSVC) is an event organized by Dynamist Motorsports Pvt. Ltd. to promote electric and renewable sources of energy. Teams of students and professionals who are passionate about working with solar energy come together and showcase their innovations in the design, construction, and operation of solar vehicles. The event is held in multiple states across India and consists of three main phases – virtual screening round, technical inspection, and two levels of .



dynamic events – zonal and national the Electric Solar Vehicle Challenge (ESVC) is an international event that provides an exciting and competitive platform for participants to showcase their innovations and technological prowess in the field of solar-powered vehicles. Hosted by ISIEINDIA, ESVC has been running for eight successful seasons and continues to grow, introducing more and more participants every season. It is an event that is recognized by

the International Solar Car Federation and even endorsed by NITI Aayog’s Electric Vehicle Mission 2030.ESVC is a great platform for present and future talents to prove their knowledge and skills in the field of solar power, electric, and clean energy engineering. With the motto - “Imagine, Drive, Shine”, Team Suryaksh is ready to take on challenges. They are the innovative minds hustling to bring a change and make us proud.

## *MEMBERS OF TEAM SURYAKSH 2022-23*

***Faculty Advisor: Prof. Seema Rajput***

<b>Name</b>	<b>Year</b>
Anusha Dixit	First Year
Bhakti Baladawa	First Year
Purva Kulkarni	First Year
Vasudha Bhagat	First Year
Tanvee Kulkarni	Second Year

*~ By Rutuja Bobade (TY Mechanical)*

# TEAM VINIDRA



## Vinidra, The Sleepless and the one who fills the cosmos with auspiciousness!

Vinidra, The Sleepless and the one who fills the cosmos with auspiciousness!

Vinidra is the Satellite Team of CCOEW, which intends to develop its satellite, The KARVESAT – in honor of Maharshi Karve, with the guidance of ISRO.

To accomplish their goals, the team attends various workshops, participates in competitions, does hands-on projects, researches, and does literary surveys.



*Team's CanSat Model*

Vinidra stands strong with the mission to design, manufacture, and fabricate a satellite to be launched for the commercial and/or scientific benefit of the country and construct an atmosphere for our college in the league of other colleges who have successfully launched their satellites, making an impact nationally and globally. The team is participating in IN-SPACE and ASI's CanSat Competition '22. The competition requires students to design and build a can-sized satellite and compete with other teams on several parameters throughout their year-long work progress. Currently, they have successfully passed the Preliminary round with great feedback from the judges, submitted a Critical Design Review, and are gearing up for the Flight Readiness Review. Along with the academic knowledge, the members are consistently upskilling themselves through

various workshops in association with institutes and clubs such as EINSAT by BITS Pilani K. K. Birla, Goa, Workshop by Ham Radio Club IIT, Bombay, and Satellite Workshop by VIT, Pune.

The Power Subsystem unit of the team is ready with their Research Paper on ‘Pico- Satellite Configurations and Discussions’ based on the power budgeting and configuration of Satellites which they have implemented for The CanSat.

comprises 35 competent engineering students divided into 6 Subsystems: Power, OBS, Communications, Structure and Thermals, Payload, and ADCS.

Wishing this team great success in their endeavor of making the college and the country proud of their ambitions.



*Ground Control System Software developed by the Team*

The team has successfully designed a telemetry system, state-based flight software, and a novel descent mechanism for the CanSat’s detumbling Vinidra



*Flying Test of CanSat Model*

### **Team Member’s experience:**

Through team Vinidra, I have not only learned about the intricacies of a satellite and the technicalities involved to make such complicated devices work but also, I have learned how to work with different software and understand a professional level of precision and optimization in teamwork. The feeling of holding a self-made satellite in your hand is just amazing!

By: Anwasha Sen, Head, Power Subsystem.

## MEMBERS OF TEAM VINIDRA 22-23

*Faculty Advisor: Prof. Seema Rajput*

<b>Name</b>	<b>Designation</b>	<b>Subsystem</b>
Priya Shah	Captain	Thermal and Structural
Ishika Ghosh	Member	Thermal and Structural
Poorva Ghanekar	Member	Thermal and Structural
Trupti Jhumbad	Member	Thermal and Structural
Janhavi Bhopale	Member	Thermal and Structural
Mrunal Bodas	Member	Thermal and Structural
Mugdha Deshmukh	Member	Thermal and Structural
Devika Surve	Captain	ADCS
Aditi Sant	Member	ADCS
Shreya Dhumal	Member	-

*~By Rutuja Bobade (TY Mechanical)*



# TEAM OJAS



## Ojas, the Vigor!

Team Ojas stands strong with the mission to design, manufacture, and fabricate an Autonomous Underwater Vehicle (AUV) to participate in various competitions. The team consists of 19 highly motivated individuals who are passionate about robotics and have a collective interest in the field of AUV building. Together, they strive to build an efficient AUV that can tackle challenging tasks and compete against other teams from around the world.

Participating in Impetus in INC'23 by PICT College is a great opportunity for the team to showcase their skills and knowledge. This international-level project competition cum exhibition provides the perfect platform for the team to demonstrate their capabilities and gain recognition for their work. The process of building an AUV involves a team of engineers from different

disciplines who bring their expertise together to design, build, and test the vehicle. The team must consider factors such as power supply, buoyancy, propulsion, navigation, communication systems, and environmental conditions that may affect the vehicle's performance.

The members are consistently working towards their goal by studying and researching various aspects of vehicle design, building materials, propulsion motors, propellers, and electronic components.

The team was made in November 2022 and the first phase of the project was research. It was difficult due to the lack of experience and difficulty keeping everyone engaged. After research, the team started on the execution phase with goals and deadlines.

They struggled as international competition seemed a little too far-fetched as a beginner's stage, but now they are participating in a competition where they are building a river-cleaning robot. This robot will surely be the

stepping stone for the future. Team Ojas is working hard to fulfill their dreams and inspire many young talents to invest their time into making an impact. Wishing the team a great future filled with success!

## MEMBERS OF TEAM OJAS 2022-23

*Faculty Advisor: Prof. Seema Rajput*

Name	Designation
Sharvari Londhe	Design Engineer
Samruddhi Bari	Design and Simulation Engineer
Dnyaneshwari Wakchaure	Member

*~By Rutuja Bobade (TY Mechanical)*

### Facts

The world's largest tunnel boring machine, named Bertha, was used to dig a tunnel for a highway in Seattle, Washington. It measured 57 feet (17 meters) in diameter and weighed 7,000 tons.

The deepest underwater tunnel in the world is the Eiksund Tunnel in Norway, which goes as deep as 287 meters (942 feet) below sea level.

# TEAM ASME



Since its establishment in 2015, the ASME Student Section at Cummins College of Engineering for Women has organised several activities to benefit engineering students.

Having a well-written resume is a crucial factor in securing your dream job. It is a skill that enables us to showcase our personality and express our willingness to work in the corporate world. To help individuals enhance this vital skill, ASME CCOEW recently organised a seminar on Resume Building. The event featured Dr. Ganesh Soni, an industry veteran with 10+ years of experience working with Hexagon Limited, who has delivered over 25 sessions on Resume Writing. The session was highly interactive, with Dr. Soni highlighting the importance of having a well-crafted resume and providing insights into the selection process used by the

industry. He also shared a link to resume templates with the attendees, and the seminar concluded on a positive note with Dr. Soni motivating all the participants to Aim High and Think Big.



*Dr. Ganesh Soni interacting with the students during the session*

On January 16th, 2023, an industrial visit was organised to Mahindra CIE, Parawadi, to gain insights into various aspects of production, management, technology and acquire knowledge in the field of composites. The visit commenced with a brief presentation by the company officials and an explanation of

the safety regulations. Subsequently, the students were divided into batches and taken on a tour of the raw material production section and the manufacturing section. Additionally, the students were given an in-depth understanding of various destructive and non-destructive testing methods using instruments like UTM, Charpy Impact Testing Machine, Spectrophotometer, Glow Wire Setup, and Viscosity Setup. Furthermore, the students also got acquainted with QC tools like 5S, Kaizen, Sampling, and Pareto Charts, which are followed in the industry. The visit culminated with a demonstration of injection molding and compression molding, where the students could observe the intricate details involved in the process.



*Industry Visit to Mahindra CIE, Chakan, Pune, Maharashtra*

Six Sigma is a set of techniques and tools that provide several

benefits for engineers, such as problem-solving, error reduction, value addition, and optimization for the best solution. On 1st February, 2023, the ASME Student Section organised a workshop on Six Sigma and DOE to understand the process improvement techniques and tools. The guest speaker, Dr. Makarand Joshi, who has over 30 years of experience in manufacturing, quality, global purchasing, and supply chain, provided insights into the basics of Six Sigma with practical examples, Theory of Variation, and the interpretation of the Bell Curve. Additionally, the speaker explained Design of Experiments (DOE) in three approaches: Classical, Taguchi, and Shainin. Furthermore, the speaker conducted a short workshop on DOE Response, which gave the students an insight into the Shainin DOE Model.

This session was an incredible opportunity for the participants to learn about Six Sigma and DOE, and it proved to be highly beneficial for them. The Gas Turbines have become an



important, widespread, and reliable device in the field of power generation, transportation and other applications. The ASME GT Group in collaboration with ASME Cummins Student Section organised a one day seminar on 11th March, 2023. The theme of the seminar was 'Gas Turbine Engines and their Applications'.

The first speaker, Dr. Sharman Goswami, gave an overview of ASME India GT group and briefed the audience about gas turbine engines and their applications. He explained the working of gas

Later, Ms. Harmeet Kaur discussed "Aero Engine testing and Certification" and explained various methods of testing with videos of some testing methods. The session resumed after a lunch break with Mr. Sanjay Saran's talk on "Operations and Maintenance of Gas Turbine Engines". He explained how to enter into this field and the various applications and monitoring that gas turbines require. Mr. Hitesh Mistri then briefed on "Aerodynamics of axial flow Turbine with AI ML" and covered the more recent trends for industry demand content like Artificial Intelligence, Machine Learning, and Digital Twin and its

application in Gas Turbine Industry. The seminar ended with a panel discussion where students asked questions regarding process, testing, manufacturing, and career opportunities in the Gas Turbine field. The Section has achieved exceptional accomplishments this year and is currently working on further activities that will be advantageous to engineering students. Its objective is to provide students with the latest technical knowledge and endeavours to reduce the gap between the industry and the college curriculum. ASME Cummins student section will persist in prospering under the leadership of Dr. Yashwant Munde and will persist in serving engineering students.



*Honorable Guest Speakers, the faculty advisor of ASME CCOEW Section, the committee members and audience of the ASME Gas Trubines Session*

## MEMBERS OF TEAM ASME 2022-23

*Faculty Advisor: Prof. Yashwant Munde*

Name	Position	Year
Prajakta Joshi	Chairperson	Final Year
Asra Husain	Vice Chairperson	Final Year
Maithili Despande	Vice Chairperson	Third Year
Shrushti Deore	Secretary	Final Year
Poorva Ghanekar	Associate Secretary	Third Year
Mrudul Chaudhari	Program Head	Final Year
Aboli Pakhale	Associate Program Head	Third Year
Pradnya Sonwalkar	Public Relations Head	Final Year
Shraddha Mandhare	Outsourcing Head	Third Year
Shamal Jadhav	Publicity Head	Third Year
Swaralee Dabke	Documentation Head	Third Year
Chaitrali Kulkarni	Treasurer	Second Year



*Team ASME Committee Members*

*~By Prachi Shinde ( TY Mechanical)*

# Team ASHRAE

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) was formed in 1959 by the merger of the American Society of Heating and Air-Conditioning Engineers (ASHAE), founded in 1894, and the American Society of Refrigerating Engineers (ASRE), founded in 1904. It is an American professional association seeking to advance heating, ventilation air conditioning and refrigeration (HVAC&R) systems design.

ASHRAE's goal is to serve as a source of technical standards and guidelines. The international society offers educational information, courses, seminars, career guidance and publications. The organization promotes a code



*Visit to Nandan Dairy*

of ethics for heating, ventilation and air conditioning (HVAC) professionals and provides for liaison with the general public.

There are currently 57000 members in 132 countries. Members of ASHRAE are composed of - Building services engineers, Architects, Mechanical contractors, Equipment manufacturers' employees, and others concerned with the design and construction of HVAC&R systems in buildings.

The MKSSS's Cummins College of Engineering, Pune - ASHRAE Student chapter was founded in January 2022. Currently, the chapter has 35 student members from the Mechanical Engineering Department. This year, 3 industrial visits, 1 quiz, 1 Paper Presentation competition and 2 guest lectures by an industry expert have been conducted in academic year 2022-23.

On 29th August 2022. Expert Lecture on Higher Education in US was held. The lecture was given by Mr. Sayan Biswas. Mr. Biswas is currently working as an Assistant Professor in Mechanical Engineering at University of Minnesota. he explained his experiments,

the students working on them, as well as his experience.

Then the students and faculty members asked doubts and questions regarding the research and post-graduation. Prof. Biswas gave them satisfactory answers. The session was concluded with the same.

ASHRAE had a visit to KPCL on 17th January 2023. In that visit students there, students learned about different air compressors. Area of study was around manufacturing process & Quality related operations. Air Compressor Systems offers a wide range of compressors in 15 product categories. To bring focused attention and create centres of competence specific to technology, these are subdivided into three categories:



*Industry Visit to KPCL*

Reciprocating Compressors,  
Screw Compressors, and  
Centrifugal Compressors. KPCL

offers Air Compressors from 30 to 10,000 CFM.

On 2nd February 2023. Expert Lecture on Psychrometry was given by Mr. Yash Karkhanis. In that lecture students were able to learn to use the ASHRAE Psychrometry chart in this expert session. They were able to see a sling psychrometer, which is a type of instrument used to measure relative humidity. It consists of two thermometers mounted on a frame or handle, with one of the thermometers having a wet wick or sock attached to its bulb.

On 4th February 2023 Quiz & Paper Presentation Competition were held by ASHRAE Pune chapter. In Quiz Rutuja Deshpande Won 1st Prize of 2500 INR. 2nd prize of 1500 INR won by Pradnya Sonwalkar. 3rd prize of 1000 INR won by Rohini Sangale. Paper presentation competition winners are Sakshi M. Joshi, Pradnya Sonwalkar & Rohini Sangale.

This group represented A review paper on a Comprehensive Review of liquid desiccant technology for HVAC applications. The prize money



was 4500 INR. This team also Participated in RAL. There were around 10 teams participated from all over the world.

On March 14th, 2023, Students visited the Mahati Hydropower Plant at Veer Dam. The Mahati Hydropower Plant is one of the private hydropower plants in the Maharashtra region. During the visit, they learned about the plant's operations and the various components of the plant, including the horizontal and vertical axis Kaplan turbine installations on the NLBC and NRBC.

On 29th April 2023 Students visited Prihoda Company. A team of experienced

technicians uses unique Air Tailor software to create a custom-made design for air distribution according to the customer's wishes and the area's layout.

That was the general concept behind the whole visit. Students got to learn about manufacturing processes & various applications in the industry were demonstrated.



*Industry Visit to Prihoda*

## **MEMBERS OF TEAM ASHRAE**

***Faculty Advisors: Prof. Parag Chaware, Prof. Rujuta Agavekar***

<b>Name</b>	<b>Designation</b>
Aishwarya Ambarkar	President
Shifa Shaikh	Vice-President
Devika Surve	Secretary
Sharvari Jadhav	Treasurer

*~By Akshata Vaditake (Final Year Mechanical)*

# PENTACLE 2023



*Faculty Sports Achievement*



*TY Throwball Team*



*Final Year Throwball Team*



# NATIONAL SERVICE SCHEME (NSS)



The National Service Scheme (NSS) is a Central Sector Scheme of Government of India, Ministry of Youth Affairs & Sports. The aim of the NSS is to provide hands on experience to young students in delivering community service.

Each year, our students from Cummins spread awareness about various events of social, cultural, and historical importance which take place in the country with their fiery determination and endeavour to take the big step forward.

## World Earth Day Celebration

Date: 22nd April 2022

In lieu of World Earth Day, NSS team at Cummins College of Engineering arranged a guest lecture by Mr. Priyadarshan Sahastrabuddhe(Chief Guest) and Mr. Varad Giri. Dr. M.B. Khambete(Principal of MKSSS Cummins) and Jahirabadkar ma'am attended the session. Mr. Sahastrabuddhe enlightened the students about his start-up and

explained about his self-made gadget which reduces the use of non-renewable resources as fuels. Post his speech, Mr Giri presented his perspectives on the environment.

Concluding the seminar, active nature conservers were awarded with certificates from the Principal.



*World Earth Day: Address by the Principal*

## NSS Orientation

Date:23rd Sept 2022

This seminar was held in order to spread knowledge about the working and structure of the NSS club, and what it entails to be a part of the said club. This event was reported to be very informative for the students wishing



to participate in social work and regular camps in respective villages.

### NSS Day Celebration

Date: 24th Sept 2022

After starting the event at 7.45 am with the NSS national anthem followed by the pledge, the participants sang the devotional song "Itni Shakti hume de na Data". The atmosphere now made serene, seniors from NSS shared their fun experiences with the other members.

The programme was concluded with some fun activities conducted in the same location.



*Activities conducted in Classrooms*

### EduYouth Celebration

Date: 4th Feb 2023

This was a major event conducted in Pune, attended by a vast population of students and intellectuals. This event was based on the principles of Human Values, dealing with challenges faced by today's youth.

Besides the Hon'ble Dignitaries, Dr. Vinay Sahasrabuddhe (ICCR President) and Shri. Bhushan Patwardhan (NAAC Chairman-EC) had arrived for the occasion.



*Offline Programme discussion of New Education Policy (NEP)*

### National Unity Day

Date: 31st Oct 2022

The event started by the taking the Pledge for Unity, led by Shubhangi ma'am (NSS Coordinator). The volunteers spread awareness regarding efforts of Sardar Vallabhbhai Patel for the freedom struggle.

### My River My Valentine

Date: 12th Feb 2023

This event was organized by Worship Earth Foundation and conducted at Bhide Bridge (Nadipatra), Pune. Also, environmental awareness was created through the program of street drama, music singing etc. NSS, and some other social organizations had also participated in these programs.



This event received a huge response from civilians too. After this, a poster rally about national unity was conducted. The final activity was the “Run of Unity” in which the participants sprinted bearing posters related to unity of the nation. The event received a big response from staff and students.



*Performance on Mula-Mutha, Narayan Peth*

## **MEMBERS OF TEAM NSS 2022-23**

***Faculty Advisor: Prof. Shridhar Kedar***

<b>Sr.No.</b>	<b>Name</b>	<b>Year</b>
1	Riddhi Pendse	TY
2	Pournima Pawar	TY
3	Komal Chourpagar	TY
4	Teertha Kulkarni	TY
5	Sunidhi Gaikwad	SY
6	Urvi Deokar	SY
7	Shrushtee Gaikwad	SY
8	Sakshi Gaikwad	SY
9	Kashish Madavi	SY
10	Chaitrali Kusurkar	SY

*~By Tanvee Kulkarni(SY Mechanical)*



# GANDHAAR 2023



*Best Class Award - Final Year Mechanical 2022-23*



*T.Y. Classical Dance*



*Final Year Class Dance*



*Final Year Class Drama*



*S.Y. B.Tech. Class Dance*



*Intercollege Solo Singing*

# GANDHAAR 2023

## GANDHAAR 2023 - THE ENCHANTED CARNIVAL !

April 2023 teleported everyone to a wondrous and mystical land of Fantasy. With colourful and ornate decorations, dazzling performances, and delicious treats, Gandhaar 2023 offered an unforgettable experience that captivated the senses and delighted the imagination.

From the moment you step through the gates, you are immersed in the world of enchantment, where everything was breathtakingly beautiful. The four-day affair had its attractions and highlights which would have surely had an impact on the lives of those who experienced it.

The fest saw young talents bloom, minds nurtured, friendships renewed, and the world painted in hues of fun and happiness. The exciting events brought a rush of adrenaline to compete with vigour and passion.

Day one – Fantasy Fandom unleashed the craziest Fantasies and explored beyond the boundaries of imagination. The Mechanical Department highlighted the theme of Good vs Evil with the Angels and Devils hanging out together. Day 2 - The Spooky Carnival where we set

free the Ghosts and Spirits with bloody faces and creepy bats all over the place.

Day 3 - The Mystical Masquerade witnessed all the beautiful ladies don ethereal gowns embellished with jewels and riches of silk along with masks that added to the theme of fantasy and escapism.

Day 4 – The ethnic regalia was the day when we embraced our cultures, adored the yards of elegance, and graced the events with a regal style.



*Debate Competition*

The Mechanical Department witnessed this extravaganza with great enthusiasm. The Mechanical Faculty went all out to put forth their best performance in front of



# GANDHAAR 2023

the Students. starting with the opening act, The HOD and Dhol-Tasha Team with a pumped performance. The Faculty performance was absolutely entertaining, adding a bit of salt by delivering dialogues on students' college life situations. We had teams from classes participating in various competitions. The batch of B.Tech Mechanical 2023 bagged the award of Best Class and the bold divas revived the fashion show ramp with the theme of Formula 1! Adding more, B.Tech. Mechanical also grabbed the 2nd place in group dance and the 1st place in class drama! Young budding artists showcased their skills in competitions such as Painting, Doodling, Sketching, Face Painting, and Trashion. Suprada Mahadik from the Third year won the third prize in the Doodling competition by letting herself delve into the element of art. With the body as their canvas, creating shapes and patterns with their movements, the graceful dancers owned the stage at all the dance events. Aabha Kulkarni (Third year) won the 4th prize as a solo dancer. Anvi Shah and Anika Pradhan won Third prize with their elegant Classical Dance moves. Sai

Phate (Third Year), won the third prize in The Symphonies (Musical Instrument). Sakshi Joshi from Final Year also won hearts with her melodies voice and won the second prize in Solo singing competition. The fierce ladies of Third Year, Amita Jambhale, Suprada Mahadik, and Sai Phate, bagged the first prize at the debate competition.



*Faculty Performance*

Shruti Chaudhari and Chaitrali Kelkar won the first position in Snaphunt. The class of Second Year took social media by storm with their most GEN-Z outlook on 'Jeene ke hai chaar din'. The reel definitely set the bar high for other departments to compete.



# GANDHAAR 2023

Divyanshi Alok from Third year took up the challenge of Face Painting. Aakansha Panhale and Asra Fatima, our first-prize winner entertained the audience with their Shayari at Open Mic. Pradnya Sonwalkar, Bhagyashri Swami, Dnyaneshwari Wakchaure, and Gayatri Jadhav expressed emotions through the art of Poetry. Pradnya and Dnyaneshwari secured the first prizes in Hindi and English language poetry, respectively. The sense of camaraderie and similar passion for music brought,

two teams from Final Year and Second Year to rehearse and unite their melodies for the Voicestra - Group Singing Event.

All and all this Enchanted Carnival was a collective and collaborative success of the entire college. Kudos to the Student Panel for their tremendous efforts to ensure a week of the most exciting and awaited cultural college fest. Definitely, this week was one of the most memorable moments of 2023!



*Poetry Recitation*



*Intercollege Solo Dance*



*Final Year Classical Dance*

*~By Rutuja Bobade (TY Mechanical)*

## Facts

The original Royal Enfield logo featured a cannon, with the slogan “Made like a gun, goes like a bullet”. Suits a RE perfectly but the funny part is that this logo was also used on lawnmowers that were manufactured by the company.

# STUDENTS ACHIEVEMENTS (A.Y. 2022-23)

## CULTURAL ACTIVITY (GANDHAAR)

SR NO.	EVENT NAME	A. YEAR (SY/ TY/ B.Tech.)	PARTICIPANTS	POSITION
1	Group Dance	Final Year	Anika Pradhan Akshata Mulik Snigdha Patil Prajakta Joshi Anushri Gujarathi Simran Khanna Rohini Sangle Anvi Shah Sakshi Koshe Sharvari Kadam Reva Kasliwal T.Sanathani Aditi Khaire	Second
2	Group Drama	Final Year	Sakshi M Joshi Bhagyashri Swami Akshata Vaditake Aparva Bhodake Nutan Lagad Pradnya Sonwalkar Prajakta Joshi Reva Kasliwal Sakshi Koshe Vaishnavi Gavhane Adishri Desai Rutuja Deshpande Shreya Vijith Sanskriti Gaikwad	First
3	Debate Competition	T.Y.	Suprada Mahadik Sai Phate Amita Jambhale	First
4	Doodling	T.Y.	Suprada Mahadik	Third
5	Solo Dance	T.Y.	Aabha Kulkarni	Fourth
6	Musical instruments	T.Y.	Sai Phate	Third

# STUDENTS ACHIEVEMENTS: CULTURAL ACTIVITY (GANDHAAR)

SR NO.	EVENT NAME	A. YEAR (SY/ TY/ B.Tech.)	PARTICIPANTS	POSITION
7	Shayari competition	Final Year	Asra Fatima Husain	First
8	Snaphunt	Final Year	Shruti Chaudhari Chaitrali Kelkar	First
9	Poem Recitation	Final Year	Dnyaneshwari Wakchaure	First in Hindi
			Pradnya Sonwalkar	First in English
10	Intercollege solo singing	Final Year	Sakshi Joshi	Second
11	Classical Dance	Final Year	Anvi Shah Anika Pradhan	Third

## Facts

The Mars Rover Curiosity, launched in 2011, weighs about 2,000 pounds (900 kilograms) and is powered by a nuclear battery that generates electricity from the heat of decaying plutonium-238.

The Hubble Space Telescope, launched in 1990, has traveled over 4 billion miles around the Earth and has captured more than a million observations, revolutionizing our understanding of the universe.

The Panama Canal, an engineering marvel, took over 40 years to build and allows ships to travel between the Atlantic and Pacific Oceans, saving them over 8,000 miles (12,900 kilometers) of travel

# MECHANICAL STUDENT PANEL

Name	Position	Year
Amita Jambhale	Asst. Technical Secretary	TY
Aabha Kulkarni	Branch Representative	TY
Avani Pande	Placement Cell Representative	TY
Sai Phate	Asst. Magazine Secretary [English]	TY
Palavi Gaikwad	Asst. Operations Secretary	SY

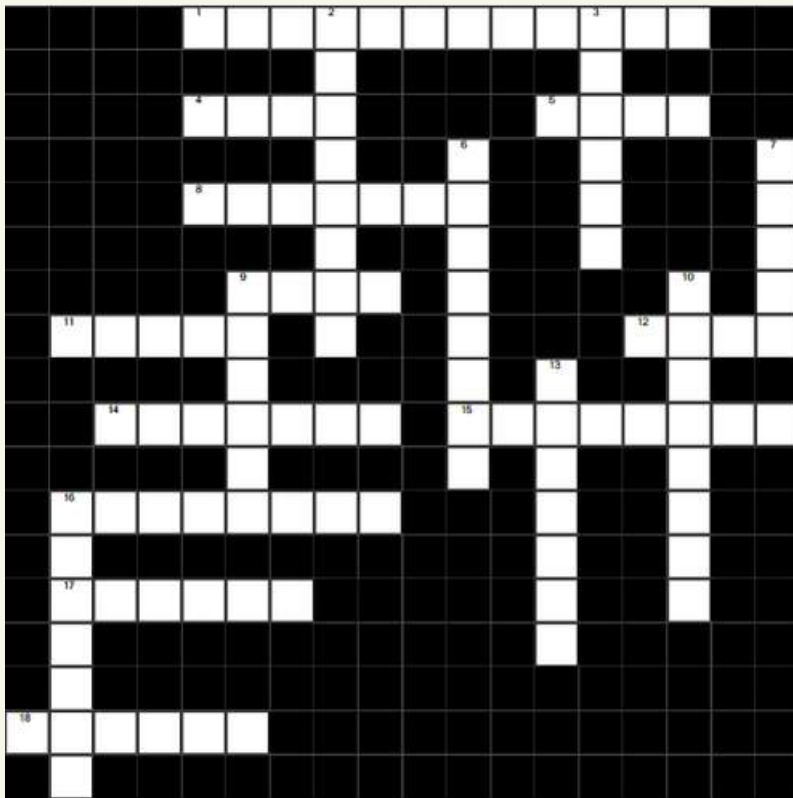


*Members of Student Panel'22-23 from Mechanical Department, from left, Sai Phate, Avani Pande, Amita Jambhale, Aabha Kulkarni and Palavi Gaikwad*

*~By Tanvee Kulkarni (SY Mechanical)*



# CROSSWORD BREAKTIME!



*For Answers, please refer Pg No. 104*

## Down:

2 Force per unit area

3 Ability to do work

6 Branch of mechanics that study the relationships between the Forces on a body and the resulting motion

7 Has 5 parts; Fulcrum, Force, Force arm, Effort, Effort arm

9 Force with which a mass is pulled toward the center of the earth

10 Time rate of change of Displacement

13 Resistance to change

16 The levers rotate around it

## Across:

1 Vector Version of Distance

4 The ratio of opposite side to the hypotenuse of a right triangle

5 That which transfers the forces acting on it to its own supports

8 Mass per unit Volume

9 Force times displacement

11 Mass times acceleration

12 Transfers rotary motion between different axes

14 The ratio of opposite side to the adjacent side in a right triangle

15 The object at behaves as if its entire Mass is concentrated at it

16 The force along the contact area between two bodies that opposes their motion relative to one another

17 Only physical attribute that affects the Periodicity of a Pendulum

18 That which changes the direction of the force without changing its magnitude

# INDUSTRY EXPERT INTERVIEW



**Mr. Prasad Pujari, Director,  
VeeraDutta Engineering Pvt.Ltd.  
(31 Years of Industry Experience)**

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**1. We have become acquainted with your professional bio – but how would you describe your life story?**

Well, after graduating in Mechanical Engineering from College of Engineering, Pune in 1992, I joined Bombay Dyeing's petrochemical plant at Patalganga, as trainee engineer.

It was my first job through campus interview at COEP. There I worked with the projects department. The plant capacity expansion project was going on. I had an opportunity to execute the design into the field.

This gave me a valuable opportunity to work with laborer on site also.

In 1999, I joined UHDE (now ThyssenKrupp) as Sr. piping engineer and worked in all fields of piping, like specification, layouts, and flexibility analysis. This was a period of computerisation. I could see the tools such as drawing boards, drafters, clutch pencils breathing their last and CAD softwares taking over. 3D softwares started coming into the market. The efficiencies improved multifold.

In 2005, I received an opportunity to work with JGC, Yokohama as a piping materials engineer. This short period with the Japanese, is a life changing experience. The discipline, dedication and determination of Japanese was certainly an experience I will never forget.

Then, I shifted to TRE, Muscat in 2006 and started working on onshore oil fields. This was an opportunity to work in upstream oil & gas. In engineering, Oil & Gas is a culture apart and every engineer has a fascination towards this field. This gave me an opportunity to work with

giants like SHELL, TOTAL, EXXON etc. Additionally, the job requirements in Muscat gave me an opportunity to travel in desert. Then my last work as an employee was with Ramboll, Doha. Here I was heading a mechanical department and the engineering of offshore platforms was supervised by me. Working with a multinational team which included Scotsman, Danish, Norwegian, Australians was a memorable experience.

After coming back to India, in 2012, I started working as a freelancer, trainer. Thanks to the companies who awarded assignments to me and the trust of associates, I was fortunate enough to start my own Engineering/Consultancy “VeeraDutta Engineering Pvt. Ltd”, in 2015.

## **2. How did you choose to work in the Piping Industry?**

While working in the project department at Bombay Dyeing, I started checking the drawings, calculations etc. The site supervision of construction activities was also part of my

work. I was very lucky to have interaction with the best engineers in my department and consultants during this time. I think, when an engineer gets an answer to the “WHY” part of any design, he starts liking the field. Hence, I started liking piping, vessel design, code, standards etc. Further, I was given an opportunity to visit IIT Bombay for a short training on Piping design. It was a very good training session with interactions with the industry, consultants etc. And then I decided to continue with piping design.

## **3. Where do you see the industry going in the future?**

The industry is going to remain till the end of civilization. Opportunities keep on coming in fertiliser, power, speciality chemicals, etc. Further, the design tools will change, but basic mechanical engineering will remain as it is. The future is for automation and artificial intelligence. This will remove unskilled jobs, but the skilled jobs will increase. Special skill set engineers will be in demand.

#### **4. What professional associations are you a member of?**

I am a Professional Engineer and was a Member of The Institution of Engineers (India). API570 piping inspector till 30 Nov 2016.

#### **5. What technical skills have you relied on to get to where you are today?**

The initial skill to be acquired during the 1990s was learning the computers. The use of the Lotus Word star on the DOS system was cumbersome, but enjoyable. Using graphs, slide charts for various calculations was time consuming and then came various software like 3D, stress analysis etc. Learning these softwares to keep pace with younger engineers was enjoyable and I had to acquire them to remain relevant in the piping industry.

The design codes such as ASME, API are very dynamic and keep on updating every 2 to 3 years. Keeping updated with these codes is the key to success in the design field.

For a design engineer, it's always helpful to work on site. The work on site, interaction with welders,

fabricators and understating construction technicality, helps in bridging the gap between office drawing and reality at site.

#### **6. What industry trends are you currently keeping an eye on?**

In the manufacturing sector the Speciality Chemicals, Pharma, Food and Solar. The developments in artificial intelligence are also interesting.

#### **7. What was the impact of Covid-19 on the Engineering, Procurement and Construction (EPC) industry?**

When the pandemic was announced and restrictions, lock downs were implemented, the EPC industry suffered along with the rest of all. But necessity is the mother of inventions. The engineering part of the industry recovered very fast with automation, work from home implementation.

The construction and manufacturing suffered, delayed due to labour movements etc. On an average the projects are delayed by one year plus. As the pandemic is getting converted into endemic, overall adjustments are still



happening in the industry. The sectors getting maximum attention are AI, Automation. Hence the students are avoiding the Mechanical, Electrical, Civil/structural engineering studies and trying for computers, automation studies etc. It has created a shortage of good engineers in the EPC industry and a flood in computer studies. The development needs to be watched carefully and necessary further adjustments are still happening.

**8. Are there any expectations you had about this career path that you have found differed from reality, in both a good or bad way?**

In India, we don't have technology as part of industry, whether its chemicals, refinery, food or pharma. Hence predominantly, we are working only on the service part, i.e. detail engineering and support in construction. If we would have developed technologies, the income per hour would have been quite bigger in this industry. Hence, to work as only detailing engineer is a bad part of my career.

But, a good part of detailed engineering experience is that we have enormous opportunities overseas. I had an opportunity to work in Japan, the Middle East etc.

Personally, while looking back, I feel like I have missed fabrication work and supply to industry. I could have left employment and started a little early in Professional Consultancy work. It would have given more chances to groom fresh engineers.

**9. What lessons have you learned in your career trajectory?**

There is no way, without Discipline, Dedication and Determination. Accepting the mistakes in work is most important and has been part of my career. This gives an opportunity to correct the things, debates and then boosts the client's confidence in our capabilities.

**10. What kind of challenges have you faced in your career?**

Working with Japanese in JGC

Corporation, Yokohama was challenging. To understand their culture, to remain soft spoken and humble was a issue for my personality. Giving attention to minute details, which I learned, was very challenging and very cumbersome.

Instead of blaming others for mistakes, accepting the mistake openly and then correcting it, was also a challenge.

Working with a multilingual, cultural team at Doha was a huge challenge. To work as department head in the oil & gas sector, which is dominated by Americans and Europeans, was challenging as well.

### **11. Which fields would you recommend engineers work in today?**

Any engineering work, keeping your brain on your toes is always recommended. Certainly, I don't like engineers entering into banking, finance or HR etc. other areas than engineering. The community activities are missed by young engineers n today's

world. They need to find some time in giving back to society with some labour work.

### **12. What are some fields that excite you as an engineering professional today?**

Current trend in the Automobile industry is exciting. I never had an opportunity to work on hydro turbines. I am looking for an opportunity to work with these mega turbines and will be excited to work.

I always take a challenge, where the feeling is "I DON'T KNOW- THAT'S HOW THINGS ARE DONE AROUND HERE".

### **13. Last thoughts, and advice for current engineering students**

Always remember three D's Discipline, Dedication and Determination. Nothing can be achieved without an OBJECTIVE or GOAL. The objective leads to PLAN. The plan generates the BLUEPRINT. These steps are must, whether it is in professional or personal life/journey.

*~By Akshata Vaditake, Shivani Pandit  
(Final Year Mechanical)*

# ALUMNA INTERVIEW

## Major Shivani Sharma



**Major Shivani Sharma**

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### **1. How was your journey after Graduation until now?**

Ans. Being in the Army, I have been fortunate to work in different terrains, with different people, cultures that has given me the exposure to grow leaps and bounds professionally and also personally. So yes, the journey has been challenging yet full of

learning however, the skills and knowledge that I acquired during graduation has helped me achieve my goals.

### **2. What motivated you to join the Indian Army ? Do you have any army background in your family which inspired you?**

Ans. My father who is a retired colonel, is my biggest inspiration behind joining Indian Army. As a child I was always mesmerized by the code of conduct and selfless duty that he discharged for the country. He guided and shaped me to join the elite Indian Armed Forces.

### **3. Could you elaborate on what is the selection procedure for technical entry to the Indian Armed Forces ?**

Ans. For technical entry per se, the aspirants need to secure the cut off percentage in the respective stream during engineering, prescribed on the Indian Army official website of a particular year. Thereafter, five days Service Selection Board takes place wherein the aspirant needs to appear for aptitude,

psychological, group discussions, group task, individual tasks, physical fitness test followed by medical test. Once, the merit is generated, the candidates join the academy for which they have applied.

**4. How did you prepare yourself - mentally as well as physically before joining the Indian Army? What was your exam preparation strategy?**

Ans. One needs to have the desire and will to get through it. Strong determination, discipline is required to achieve mental and desired physical state. I have always been a sports person and enjoyed playing games like football and squash.

Dancing too helped me to be mentally and physically sound. With respect to studies, I was aware of the minimum cut off percentage for mechanical engineering stream, therefore I really worked hard to make it.

**5. How was your experience after joining the Indian Army? Any particular incident you would like to share?**

Ans. The training session at OTA

was completely a different experience. It groomed me to be the person I am today – I am much confident, aware, and always willing to learn. The qualities that I have honed throughout this journey is commendable. There are many learnings, but the best was to get a sound knowledge on helicopters mainly Advanced Light Helicopters (ALHs) and Unmanned Aerial Vehicles (UAVs). Presently, I am an Engineering Officer for the same and have been part of various operational commitments in challenging terrains like Leh which is a high-altitude area.

**6. According to you, which is the best part of your career that you are proud of?**

Ans. Donning the olive green, making myself and my parents proud. I am too proud of my uniform and the stars on my shoulders.

**7. Did you face any failures during your journey and how did you overcome them?**

Ans. The journey has been challenging, however, the Army



trains you to face every hurdle professionally and personally with strong determination. Every day is a learning, and one must inspire themselves to give their best in every aspect of life.

**8. How has engineering helped you prepare for your current role ?**

Ans. Currently I am associated to the aviation sector of the Indian Army. The technical knowledge that I acquired during my Mechanical engineering has come very handy.



*Major Shivani Sharma for a session by Career Guidance Cell*

**9. What opportunities has the Indian army provided you with (technical courses, degrees, etc, any unique experiences)?**

Ans. I have done my advanced course in Aviation and qualified in Advanced Light Helicopters (ALHs) and Unmanned Aerial

Vehicles (UAVs). In addition to that I have also done my mandatory courses of the Army which has helped me in the technical as well tactical knowledge.

**10. How different is Major Shivani Sharma, when compared to the student Shivani Sharma at Cummins ?**

Ans. As a student, the college is like a launch pad which helps you to soar high to catch all your dreams. But after joining the elite Armed Forces, the training has prepared me for the victory on the battlefield. It teaches valuable lessons that can be applied to success in life. Discipline is one of the key lessons, which has helped me to prioritize and manage time effectively. Teamwork is another important lesson I have learnt and has taught me the importance of collaboration and communication skills, which are critical in both personal and professional life. Emphasis on physical fitness to withstand difficult and challenging situations and lastly, the importance of perseverance and resilience, which can help me to overcome obstacles.

These lessons, combined with leadership skills and a strong sense of purpose has helped me to succeed.

**11. What message would you give to the students (specially civilians) who aspire to have such a prestigious career opportunity of serving the nation ?**

Ans. Very few and fortunate ones get a chance to serve the motherland and what is better than joining the Indian Armed Forces.

Army is like a family who takes care of you and your family. The quality of life is great, and the organization is well structured.



*Major Shivani Sharma addressing the students of Cummins College during the session*

*~ By Shreya Vijith, Sharvari Kulkarni  
(Final Year Mechanical)*

## Facts

Before World War II, Auto Union and Mercedes had an epic rivalry on the track that was unfortunately funded by Adolf Hitler and the German Nazi Party. Ferdinand Porsche, whom you may have heard of, was put in charge of designing the Auto Union contenders and put the engine behind the driver to save weight. It just so happened the improved weight distribution also benefited handling. The Auto Union Type C was powered by a V16 engine with 560 horsepower.

The world's largest mechanical clock is the Makkah Clock Royal Tower in Mecca, Saudi Arabia. Standing at a height of over 600 meters, this colossal timepiece has four faces, each measuring around 43 meters in diameter

# ALUMNA INTERVIEW - Arundhati Pawar



**Name: Arundhati Pawar  
(B.Tech, 2013)**

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**1. How was your journey after Graduation until now (from Cummins to VIT to RWTH Aachen)?**

Ans. Thank you for having me here! To be honest, it has really been a roller coaster ride. I was quite directionless during my graduation and, over the years I have seen myself evolve in terms of all aspects right from getting exposure to a wide variety of fields to networking and gaining valuable work experience.

**2. What motivated you to choose the automobile sector in your career path?**

Ans. (Laughs) I would rather say I had no plans of joining the automobile sector, but I was chosen to be a part of it. I had clarity that I wanted to remain in the core Mechanical

Industry only. At that point of time, I was not so clear with my career goals but knew that I was interested in subjects like Thermodynamics, a started working as a CFD engineer which I enjoyed doing at the start. Then for reason of gaining a practical and dynamic role exposure, in 2016 I moved to Engine testing profile and in the same period I started with my Master in Engine Technology. During my testing phase in Cummins, I was really interested in Engines. This new profile helped me to co-relate concepts learned in my higher education and vice-a-versa.

**3. Moving a few years ahead, What led you to switch from an organisation's technical side to its management and business side a few years later?**

Ans. While working, I met a lot of new people and engaged with them. As a result, I discovered many new things about myself,

including my strengths and weaknesses. After working in the industry for 8-9 years, I realized my strengths are in management and execution. I thought about taking a management course, but I didn't want to get completely absorbed in this field either. That's when I decided to pursue an MSc. in Management and Engineering, which combines technology and management e.g., strategy / management.

Despite the lockdown (the second one), I was working in test cells during Covid, which made me realize that this should stop because it was affecting my personal life. I realized that this was the right time to quit and pursue my long-held dream of getting a master's degree.

I began the process of pursuing a Master's degree abroad and was accepted by RWTH Aachen, which was ideal for me in terms of finances, location, and so on. The course is about technology, innovation, marketing, and entrepreneurship, all of which are relevant to my career goals. As I am currently pursuing my master's degree, I am in the process of transitioning to the

management side.

**4. According to you, which is the best part of your career that you are proud of?**

Ans. Well, That's a tricky question! Let me think (laughs). I think I am proud of what I'm doing right now, a masters outside India, in Germany. I always had the thought of pursuing a masters abroad but somehow due to unfavourable circumstances & lack of proper guidance, it got delayed. On the other hand, I also knew that I had to start doing a job after my graduation to support my family and become financially independent. From not knowing the nuances of GRE and GMAT to actually pursuing a higher education abroad - the journey has been a long one!

**5. Did you face any failures/challenges during your journey and how did you overcome them?**

Ans. It was a challenge for me to have an undergraduate degree itself as my family back then had a financial crisis, but I never brought it to anyone except a few of my close friends and tried to focus on my studies. It was



recently that I had to choose between continuing to work and pursuing my postgraduate education. It was a difficult decision because returning to college after 8 years and making a decision and sticking to it was a major challenge. I had a hard time convincing everyone in my family, but finally now that I am here (in Germany) and doing well, they are happy as well.

People offer you their own opinions and advice, both positive and negative, but in the end, you must make the final decision and stick to it. I believe I have overcome this challenge now (laughs).

**6. What do you feel is the difference between engineering education and research in India and abroad?**

Ans. People here (abroad) are more research oriented. In India, we go more in width than in depth of anything, but here the focus is on the depth. Also, students here have a lot of exposure. For instance, in India, during undergraduate, the only industrial exposure that we have is during the month long (or 2 month)

internship. However, here, both undergraduate and postgraduate students get a lot of exposure as they do “Work-Student” or part time jobs (along with their studies) in their field which not only gives them orientation towards research and helps them develop their skill set but also serves as a source of income. The part time job I am talking about is not like serving in a cafe or working in a gas filling station but instead working for a proper company in the industry or a start-up probably where the student does research, performs small tasks which are allotted to them like doing a CFD analysis, etc. I believe that we should start focusing more on developing students' skills and giving them more exposure to the industry in India. This is because we may forget bookish knowledge, but we will always remember our hands-on learnings and mistakes, as well as how we corrected them. We should try to diminish this gap.

**7. Given a choice, would you like to serve the MKSSS in some challenging senior role?**

Ans. Yes, without a doubt! I have a connection with Cummins College, and most people remember their engineering schools. Cummins and VJTI (where I earned my diploma) were the most influential colleges in shaping me into the person I am today. I had a few professors at Cummins who I could always turn to for academic and non-academic questions. I still have a great deal of respect for them, and they have greatly inspired me.

**8. 10 years down the lane, where do you see yourself? What challenges do you foresee in the future? (Which can make you think of alternate career directions?)**

Ans. I think I will be in a good position in some leading company, most probably in the automotive sector itself, because it is where I have gained most of my experience in the past years. Being in Germany has given me exposure of international culture and environment which has added a broader perspective to my learnings. Few years down the line, I wish to go back to India and implement things that I have learnt here - starting from the

latest technology to the management of it. I do not exactly mean to take a senior leadership position but more than that I want to share and implement the knowledge that I have gained here.

I feel with the rapidness in change of technology, the question of more than 10 years is difficult to answer (laughs) because of the highly unpredictable world around us, so I have been thinking about 3-5 years you can say. A few years down, I surely don't envision myself in Germany, but instead back in India. Because I personally felt that being in Germany comes with its own pros and cons but nevertheless, being here for my postgraduate studies is a once-in-a-lifetime opportunity which I would like to utilise to the fullest potential.

**9. How different is this Arundhati Pawar, when compared to the student Arundhati at Cummins?**

Ans. You should ask this question to the professors who taught me (laughs). I was rather an immature kid back then which can be due to various reasons like not having right exposure, or probably having same mindset of friends

and not seeking for a mentor or guide. I feel that you should always surround yourself with ppl who have the same liking or goals and are better than you, so that you have a healthy competition. Secondly, getting good mentors is also an important part of your life. Mentors could be your teachers, boss or even your parents - someone who gives you the belief that you can do something better. They shape your life by giving you a direction. Due to the lack of these two things, I feel I was an entirely different person back then, compared to this new Arundhati.

**10. What message would you give to the students who will soon be working in industries and to those who aspire to have a career in the core field?**

Ans. Have goals for yourself, establish a good network, develop your skill set and always be ready to face the world. Be open to learning concepts from all other domains, don't just go with the flow. Analyse yourself and remain a lifelong learner.

At last, I would just like to say-try to put down your thoughts like a goal setting as it is always the first step towards turning the invisible to visible!

*~ By Shreya Vijith, Sharvari Kulkarni (Final Year Mechanical)*

## Facts

**The Large Hadron Collider (LHC) at CERN, located near Geneva, Switzerland, is the largest and most powerful particle accelerator ever built. It spans a circumference of 17 miles (27 kilometers) and helped discover the Higgs boson particle.**

**The world's fastest recorded land speed for a vehicle is 763 miles per hour (1,228 kilometers per hour), achieved by the Thrust SSC (SuperSonic Car) in 1997.**

# BEST OUTGOING STUDENT INTERVIEW



**Name: Prajakta Joshi**  
**(Final Year 2023)**

Being named 'THE BEST OUTGOING STUDENT' is a remarkable achievement that recognizes an individual's academic excellence. Exceptional skills and overall outstanding performance throughout their educational journey. This year the title is awarded to **Prajakta Joshi (Final Year, B.Tech Mechanical)**. Winning this accolade is a testament to Prajakta's hard work and dedication, and it serves as a source of inspiration for others. Let's hear about her and the pinnacle of achievements from her educational journey throughout the years.

## **1. Can you tell us about your biggest accomplishment during your time at college?**

Ans. I believe that winning the "Best Outgoing Student Award" is my greatest success during my time in college. It is a representation of the four years of rigorous effort, devotion, and great interest I have put into learning the subjects and in doing whatever comes my way. I am very grateful to my parents who constantly supported and motivated me, my friends for being with me, and who helped me in my studies. Thank you to all my professors for believing in me and guiding me well.

## **2. What inspired you to pursue engineering as your field of study?**

Answer: From the time I was in school, I have been interested in Mathematics and Physics. Visiting my father's workplace and watching those gigantic machines inspired me to pursue a career in engineering. Mechanical engineering, being the core field, forms the basis for other allied branches, which was my personal choice since it is the oldest engineering, and it plays a part in how the world functions today.



### **3. How have your academic experiences at college prepared you for your future career?**

Answer: College offered a wide range of subjects beginning in my first year, allowing me to choose what I wanted to study. Each year, I got a choice to choose between open and program electives.

The choice of topics, such as Entrepreneurship Development, aroused interest in the business world. Economics for Engineers was one of the courses that helped me build a financial perspective as an essential part of my future career. Moreover, maintaining a good CGPA has always made me grab the best opportunities available during campus placements and internship hiring.

### **4. What skills did you develop during your engineering degree that you feel will be most useful in your future career?**

Answer: My college has brought a smooth transition in me.

I went from being a quiet and shy student in high school and junior college to becoming a confident student with abilities such as leadership, communication, and

teamwork. The supportive environment to participate in various activities like Sports, 'Gandhar,' and to be part of various technical and non-technical teams has facilitated social, academic, physical, and emotional development. My knowledge as a mechanical engineer has improved by taking classes in automation and control, machine design, fundamentals of automotive technology, heat transfer and refrigeration, and the use of software like SolidWorks, AutoCAD, Ansys, and an Introduction to MATLAB.

### **5. What challenges did you face during your time at college, and how did you overcome them?**

Answer: Beginning in my second year, I was a member of the ASME Cummins Student Panel, which aided in the development of my leadership and teamwork skills. Sometimes, I held different views than my teammates, but it taught me to develop patience, the ability to accept diverse views, and the significance of inclusion. When I had to speak in front of a large audience, I used to become tense.

I developed my communication abilities while serving as the team's chairperson, organizing meetings with my group members, and participating in the welcoming of guests at various events held by my team.

**6. How did you balance academics and extracurricular activities during your time at college, and what did you learn from that experience?**

Ans. I have practised Kathak dance as well as played sports like table tennis since I was a little child. I was constantly motivated to be energetic, physically active, and intellectually strong by taking part in various activities. Balancing both was not difficult for me because I was already skilled at doing so.

**7. Can you share an example of a project you worked on that you are particularly proud of?**

Ans. My teammates and I worked on two distinct types of grape harvesting grippers during my final year. Additionally, the setup for selective spraying was a

component of our project.

We had the honour of presenting it to the NBA team that came to visit our campus. When we went to the NRCG farm, we were happy to witness the actual harvest. Speaking with the scientists there helped us identify the factors we needed to focus on. For all of us, it was an incredible experience. We won the renowned "Kedar Tumne Award" because of the time, effort, and hard work put in by all of us, including our project guide Prof. Nilesh Kolhalkar sir. I am pleased about this

**8. How did you collaborate with others on group projects or assignments, and what strategies did you find most effective?**

Answer: I believe the one thing I adhered to was maintaining open lines of communication among the team. I listened to alternative ideas and perspectives. By delegating responsibilities, resolving conflicts, and coordinating efforts from time to time, I think I managed to work effectively on group projects or assignments.

**9. How did you stay up to date with the latest developments in your field, and what resources did you rely on to do so?**

Answer: I believe in staying up to date on trends in technology if we want to grow in our careers. I read ASME's monthly Mechanical Engineering journals as well as smart briefs. Reading interviews with Industry leaders on LinkedIn helped me to know what the world's most crucial problems are and how companies are working towards their goals.

**10. What advice would you give to incoming engineering students who are just starting their academic journey?**

Ans. Believe in yourself. Work hard until you get success. Have good

scores for all semesters. If you are not good at something, do not just ignore it and try to focus on it. The career counselling sessions, expert talks, and lectures that assist us to improve our employability skills are all organised by our institution. Avoid skipping such sessions. Later, you will understand its significance. Be enthusiastic. Grab advantage of these four years while you can since they will not come around again. All the best!



*Prajakta receiving the award during the cultural fest Gandhaar*

*~By Rutuja Bobade, Sai Phate (TY Mechanical)*

**Facts**

**The average car consists of approximately 30,000 individual parts. These range from complex components like engines and transmissions to smaller parts such as nuts, bolts, and screws. Each part plays a vital role in the functioning of the vehicle.**

# PURDUE FELLOWSHIP INTERVIEW



**Name: Shivani Pandit**  
**(Final Year 2023)**

**1. Congratulations on being selected for the Cummins Fellowship program at Purdue! How excited are you to start your new journey at Purdue?**

Ans. This fellowship is an absolutely remarkable and extraordinary opportunity that has filled me with immense gratitude and a sense of honour. To have been selected among a pool of talented individuals is truly humbling and has further reinforced my dedication and passion for the work I aim to pursue. It's a mixed bag of emotions, as I find myself standing at the crossroads of

excitement, nostalgia, and apprehension. I am pretty excited for the kind of work I will get to do there, but simultaneously bidding farewell to my college experience evokes a bittersweet sentiment. College has been a transformative journey, providing me with valuable knowledge, cherished friendships, and personal growth. Moving to a new country adds an extra layer of anticipation, as I prepare to embrace unfamiliar surroundings and navigate a different culture. While the path ahead may be uncertain, I am resolute in my belief that this fellowship is a stepping stone towards a future brimming with possibilities. It serves as a launchpad for me to explore my potential, broaden my horizons, and extend my reach to create a meaningful difference in the world.

**2. Can you elaborate about the selection process which you have to go through?**

Ans. The process is essentially divided into 4 stages – there's



an application that you submit to the program coordinator, Dr. Kelkar. Then you are interviewed by a panel of all the Heads of Department and the Principal, Dr. Khambete. Once you clear this step, a panel of Cummins Inc officials including the CTO interview you and select the list of eligible applicants to the university. The final stage is applying to Purdue University independently where they assess your merit as a student through your profile, statement of purpose, recommendations, and scores.

**3. Before applying for the Cummins Fellowship program, what had you decided earlier as a future career progression plan?**

Ans. Once you leave college, you are faced with primarily two options - working at a reputable company or studying at a prestigious institution like Purdue University. In my case, this program has helped me achieve my goal of pursuing a master's degree. With the opportunity provided by this fellowship, I am able to embark on a transformative academic journey,

gaining specialised expertise and expanding my knowledge in my field of study. The decision to pursue further education represents a significant step towards personal and professional growth, opening doors to new opportunities and enhancing my future prospects. I am grateful for the support and resources this program offers, as it empowers me to reach my educational aspirations and make a meaningful impact in my chosen field.

**4. Which exams does one need to clear to become eligible for this program? How did you prepare for these exams?**

Ans. Since you will be applying to Purdue University, you need to give the GRE and TOEFL or IELTS exams. I didn't join any classes; there is a lot of study material available online and in books from various sources. What helped me most was giving mock GREs to see where I stood and working on the problem areas after analysis. I think setting myself a structured schedule

and target dates worked for me.

**5. How do you think one can build the right profile for this fellowship program?**

Ans. I think maximising the opportunities this college gives you is the way to go. I interned at three different companies with varying profiles. I spent a month as a Design Intern at TOX PRESSOTECHNIK, India and two months at Boeing India as a Manufacturing Engineering Intern. I was a part of Team Bharadwaj and the content head at TEDxCCOEW. I volunteered at an NGO, wrote for the department newsletter, won an award in an IP Olympiad, and played volleyball for the college team. I'm grateful to the college, department, and professors for providing me a considerable amount of latitude in choices. Try to make sure that these 4 years make you a well-rounded individual with a broad spectrum of abilities.

**6. How much weightage is given to academics and extracurricular activities?**

Ans. As I mentioned earlier, I devoted a large share of my time to extra-curricular activities.

However, I made sure that I kept my grades fairly high alongside. Ultimately, it's a balance of both, the academics get your foot in the door and give you a foundation for what you want to do in the future. The extracurriculars and how you make the most of them are really what can make you stand out.

**7. What subjects or core curriculum learning do you intend to do at Purdue?**

Ans. My research work will focus on the exciting intersection of AI and product and process design. I aim to draw inspiration from natural design architectures to create sustainable, multi-functional, and resilient designs. By exploring bio-inspired materials and processes, I will apply these concepts with the assistance of an AI interface. Through this research, I hope to unlock innovative solutions that combine the wisdom of nature with the power of artificial intelligence. The integration of AI and design offers immense

potential for innovation and problem-solving. With advanced computational tools, I will leverage AI to enhance the design process and address pressing societal and environmental challenges. Ultimately, my goal is to contribute to the development of intelligent and sustainable design solutions that have a positive impact on our world.

**8. What are the challenges that you feel you'll face at Purdue?**

Ans. Of course, the thought of moving to a distant location and facing changes in weather, surroundings, and living independently does bring about a certain level of nervousness. Transitioning to graduate-level work presents its own set of challenges, but I am optimistic and determined to adapt to the demands of this new academic phase. Despite the uncertainties, I view these experiences as opportunities for personal growth and development. I embrace the chance to broaden my horizons, foster resilience, and gain a deeper understanding of myself and the

the world around me. It is through facing these challenges head-on that I believe I will cultivate a sense of independence and expand my capacity to thrive in diverse circumstances. I am confident that with perseverance and an open mindset, I will navigate these changes successfully and emerge stronger than ever before.

**9. What career direction would you like to choose after the completion of the program?**

Ans. For now, I maintain an open mind, staying focused on the possibilities that lie ahead in the next couple of years. I approach this period with determination and a clear sense of purpose, eager to make a meaningful impact. With a proactive mindset, I embrace challenges as opportunities for growth and remain dedicated to my goals. This transformative journey holds immense potential, and I am ready to seize every moment and create a positive difference.

**10. What is the one piece of valuable advice that you got during this journey?**

Ans. I talked to a lot of the previous recipients of this fellowship and others who have studied at Purdue University, and they have been a wonderful support system and a treasure trove of advice. I think one thing that really stayed with me was being told to keep faith. This whole process happens over an extended period and in multiple stages, so there are times when you're drowning in the amount of effort you must put into this without immediately visible results. Just keeping calm, putting in the work and trusting the process helped.

**11. And what piece of advice would you like to give to your juniors who aspire to apply for this program?**

Ans. As I mentioned earlier, work on your profile and make the

most of your time here. Plan your year according to application requirements and keep your test scores ready so that in the final stages you can focus on the important areas of the application. If there's one specific piece of advice I have for this program, it would be to connect with everyone. I received a lot of insightful advice from Dr. Chandekar when we discussed this fellowship multiple times throughout the process. Talk to your professors, to seniors, to those at Purdue University and definitely connect with professors at Purdue. Discuss your interests, their research work and find an area of convergence of the two. Keep an open mind about where you'd like to work but also narrow down a few areas of research you believe you'd enjoy.

*~By Prachi Shinde (TY Mechanical),  
Tanvee Kulkarni (SY Mechanical)*





## U.G. Students



**Final Year**  
**MANALI DEORE**

*It was a moment of great honor for me to receive the prestigious 'Cummins Meritorious student award'. The key to achieving your target is working hard consistently, staying focused and never giving up. Asking questions to professors and clearing doubts helped me to keep engaged and develop interest. I'm greatly thankful to all the professors of mechanical dept for their efforts and valuable guidance throughout.*

*I always cleared my concepts and doubts the moment it was taught by our professors either by asking them or by referring to various textbooks available in library. Throughout these four years I have studied quite consistently and have been disciplined regarding all the assignments and practical as well. It feels good to have achieved this and feels like all the hardwork I put into it has paid off.*



**Third Year**  
**SAKSHI KOSHE**



**Second Year**  
**AMRUTA PURANIK**

*I feel that I am blessed after achieving the highest score in the Second Year of Mechanical Engineering in Cummins College of Engineering for Women, Pune. It would not be possible without the appropriate guidance of the faculty, excellent company of friends and support of my parents. Looking forward to learn many more things further!*



**Second Year**  
**SHRUTI PATIL**

*I believe that engaging professors, active student organization, a warm campus community, cutting-edge facilities, libraries, meaningful internships, and stimulating discussions has contributed to my success as a topper and are essential for students to excel academically, develop leadership, and foster a sense of belonging.*

*Being a topper, gives me a feeling of pride and self-satisfaction. Also it is a fuel that motivates me to pursue and work towards my next life goals*



**First Year**  
**NEHA AWATE**

# PLACEMENTS RECORD

## FINAL YEAR A.Y. 22-23

<b>Sr No</b>	<b>Name</b>	<b>Organization</b>
1	Anvi Shah	Wabtec
2	Yashswi Gadekar	Wabtec
3	Siddhi Khambe	Exxon Mobil
4	Sakshi Koshe	Caterpillar
5	Swarali Anandrao Ghadge	Caterpillar
6	Akshata Sukhadeo Vaditake	Caterpillar
7	Mrudul Pramod Chaudhari	Caterpillar
8	Asra Fatima Mohanmmad Sajid Husain	Caterpillar
9	Prajakta Abhay Joshi	Caterpillar
10	Rohini Gahininath Sangle	Caterpillar
11	Rugveda Mangesh Nalawade	Caterpillar
12	Aditi Milind Khaire	Caterpillar
13	Sharvari Mansing Kadam	Caterpillar
14	Mansi Raverkar	Boeing
15	Akshata Mulik	Boeing
16	Pratiksha Nawale	Boeing
17	Chaitrali Kelkar	Boeing
18	Snigdha Patil	Boeing
19	Shruti Chaudhari	Boeing
20	Pradnya Sonwalkar	Boeing
21	Pranjal Kiran Patil	Boeing
22	Gaikwad Sanskriti	Boeing
23	Neha Ravindra Kolhe	Boeing
24	Shivani Ashish Pandit	Boeing
25	Anusha Patil	Ather Energy
26	Janvi Shinde	Ather Energy
27	Adishri Desai	Ather Energy
28	Neha Kulkarni	Ather Energy

# PLACEMENTS RECORD

## FINAL YEAR A.Y. 22-23

<b>Sr No</b>	<b>Name</b>	<b>Organization</b>
29	Samruddhi Ambavale	Ather Energy
30	Dnyaneshwari Wakchaure	Ather Energy
31	Harshada Dhumal	Ather Energy
32	Shreya Vijith	PWC
33	Anuja Kishorkumar Sardesai	PwC
34	Khushboo Agarwal	Bechtel
35	Anisha Desai	Bechtel
36	T. Sanathani	Cummins India Ltd
37	Madhura Raverkar	Tata Motors
38	Madhura Kumbhar	Tata Motors
39	Pragalbha Kurane	Hero Mototcorp
40	Sharvari Milind Kulkarni	Eaton
41	Rutuja Deshpande	Eaton
42	Reva Kasliwal	Eaton
43	Anushri Gujarathi	Eaton
44	Nutan Lagad	Eaton
45	Srushti Deore	Becton Dickinson
46	Sakshi Dighe	Danfoss
47	Sakshi Mahesh Joshi	Danfoss
48	Rashi Gulhane	Danfoss
49	Saakshi Nitin Cholkar	Danfoss
50	Anika Anand Pradhan	Danfoss



# PLACEMENTS RECORD

## FINAL YEAR A.Y. 22-23

Sr No	Name	Organization
51	Shrutika Bhagwat	Alstom
52	Apurva Bodakhe	Alstom
53	Vaishnavi Gavhane	Alstom
54	Rucha Sangale	Anand Group
55	Sauyma Nalawade	Technip FMC
56	Shradha Shinde	Technip FMC
57	Karishma Surwade	Tata Autocomp
58	Anuja Patil	Plastic Omnium
59	Poojal Bhoi	Plastic Omnium
60	Isha Ekbote	Worley
61	Tejal Parhad	Worley
62	Arpita Sathaye	TOX India

*~By Prachi Shinde ( TY Mechanical)*

# PLACEMENTS RECORD

## M.TECH STUDENTS 22-23

Sr No	Name	Organization
1	Akanksha Gupta	Cummins India

# INTERNSHIP RECORD

## T.Y.MECH 22-23

<b>Sr No</b>	<b>Name</b>	<b>Organization</b>
1	Samruddhi Joshi	Microsoft
2	Anuja Jadhav	Schneider Electric
3	Maithili Deshpande	Schneider Electric
4	Poorva Ghanekar	Ansys
5	Shruti Chavan	Ansys
6	Sai Phate	Ansys
7	Krishna Chavan	Ansys
8	Divyanshi Alok	Ansys
9	Riddhi Pendse	Ansys
10	Sakshi Tonde	ITC
11	Rakshita Dhotre	General Mills
12	Shweta Jha	Danfoss
13	Pranjal Chouhan	Danfoss
14	Shifa Yusuf shaikh	Danfoss
15	Mamta Subhashchandra Jaiswal	Danfoss
16	Shamal Arun Jadhav	Danfoss
17	Gayatri Jadhav	Becton Dickinson
18	Sayali Chakre	Becton Dickinson
19	Amruta Puranik	Eaton
20	Ishika Ghosh	Eaton
21	Suprada Bhimrao Mahadik	Garret Motion
22	Akanksha Chodankar	Garret Motion
23	Avani Suhas Pande	Garret Motion

# INTERNSHIP RECORD

## T.Y. MECH 22-23

<b>Sr No</b>	<b>Name</b>	<b>Organization</b>
24	Swaralee Sameer Dabke	Garret Motion
25	Aabha Kulkarni	Garret Motion
26	Amita Jambhale	Garret Motion
27	Akanksha Pahurkar	Aker Solutions
28	Anikta Khalate	Aker Solutions
29	Devika Surve	Aker Solutions
30	Dnyaneshwari Bangar	Aker Solutions
31	Gargi Bhonde	Aker Solutions
32	Gayatri Bhandare	Aker Solutions
33	Pournima Pawar	Aker Solutions
34	Prachi Shinde	Aker Solutions
35	Ruchita Kadam	Aker Solutions
36	Sharvari Jadav	Aker Solutions
37	Sakshi Joshi	Sprng Energy
38	Madhura Kshirsagar	Sprng Energy
39	Priya Shah	Atlas Copco
40	Vaikhari Kharul	Atlas Copco
41	Aakanksha Panhale	Atlas Copco
42	Siddhi Sonnekar	Atlas Copco

*~By Prachi Shinde (TY Mechanical)*

# STUDENT RANK LIST

## FINAL YEAR A.Y. 2021-22

### ***TOP 10 ACHIEVERS!***

Rank	STUDENT NAME	CGPA
1	MANALI DEORE	9.31
2	SIDDHI KINAGE	9.15
3	SIMRAN BHURKE	8.93
4	ESHWARI GUDHATE	8.9
5	SALONEE RASAL	8.75
6	DEVASHREE BHOLE	8.59
7	RAHEE KULKARNI	8.57
8	PRAJAKTA MAHAJAN	8.52
9	TANVI AREY	8.51
10	RADHIKA JOSHI	8.46

### Facts

According to Grand View Research, the volume of the global 3D printing market in 2019 was estimated at \$ 11.58 billion, and from 2020 to 2027 its average annual growth will be more than 14%. By 2027, there will be 8 million 3D printers in the world – almost six times more than in 2018. With the help of 3D printing, they are already creating clothes and shoes, interior items, mechanical parts and even prostheses. Many parts for the Rutherford engines installed on the Electron launch vehicle are 3D printed.

The word “engineer” is derived from the Latin ingenium, which is loosely defined as “cleverness” or “native talent.” In previous centuries, “engineer” was used only to refer to war engines—that is, engineers who built fortresses and weapons.



# STUDENT RANK LIST T.Y. A.Y. 2021-22

## ***TOP 10 ACHIEVERS!***

Rank	STUDENT NAME	CGPA
1	SAKSHI KOSHE	9.33
2	ANUSHRI GUJARATHI	9.17
3	SHIVANI PANDIT	9.14
4	ANVI SHAH	9.09
5	SHARVARI KULKARNI	9.07
6	JANVI SHINDE	9.05
7	SIMRAN KHANNA	9.03
8	PRAJAKTA JOSHI	9.02
9	ROHINI SANGLE	9.01
10	AKSHATA VADITAKE	8.92

### Facts

The concept of the modern bicycle dates back to the early 19th century. However, it wasn't until 1869 that the first fully pedal-powered bicycle, known as the "bone-shaker," was introduced. It featured a wooden frame and iron tires, making for a bumpy ride.

The concept of a humanoid robot was introduced by Isaac Asimov in his science fiction works. The first humanoid robot, called WABOT-1, was developed in Japan in 1973.

# STUDENT RANK LIST S.Y. A.Y. 2021-22

## **TOP 10 ACHIEVERS!**

<b>Rank</b>	<b>STUDENT NAME</b>	<b>CGPA</b>
1	AMRUTA PURANIK	9.43
2	ULHAS VAIKHARI	9.11
3	SUPRADA MAHADIK	9.05
4	MAITHILI DESHPANDE	8.98
5	GARGI BHONDE	8.83
6	AKANKSHA CHODANKAR	8.8
7	AMITA JAMBHALE	8.77
8	KRISHNA CHAVAN	8.66
9	RUCHITA KADAM	8.6
9	AVANI PANDE	8.6
10	AABHA KULKARNI	8.57

*~By Akshata Vaditake  
(Final Year Mechanical)*

### Facts

The fastest land speed record for a bicycle was set in 2015 by cyclist Neil Campbell, who reached a speed of 174.34 miles per hour (280.57 kilometers per hour) in a specially designed bike.

The concept of a humanoid robot was introduced by Isaac Asimov in his science fiction works. The first humanoid robot, called WABOT-1, was developed in Japan in 1973.

The first industrial robot, called Unimate, was introduced in 1961 by American engineer George Devol. Unimate was used to perform repetitive tasks on an assembly line, marking the beginning of a new era in automation and manufacturing.

# SEM I - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***FINAL YEAR SUBJECT TOPPERS***

<b>SUBJECT CODE</b>	<b>STUDENT NAME</b>	<b>MARKS</b>
CAD/CAM And Automation	Simran Bhurke	86
Transmission System Design	Manali Deore	85
Advanced Entrepreneurship Development	Prajakta Mahajan	93
Economics For Engineers	Manali Deore	98
Automotive Technology	Siddhi Kinage	96
COMPUTER GRAPHICS	Prajakta Mahajan	93
CAD/CAM And Automation Lab	Manali Deore	51
Project Phase-I	Manali Deore	138
Manufacturing Process – III Lab	Manali Deore	34

### Facts

**Ferrari engines are musically engineered to sound perfect by utilizing 3rd and 6th harmonics on the air intake, like an organ or flute.**

**The average commercial jet engine can generate up to 100,000 pounds of thrust, equivalent to the power of 27 Formula 1 race cars combined.**

**The International Space Station (ISS) is the largest human-made structure in space, weighing around 420,000 kilograms and spanning an area larger than a football field.**

# SEM I - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***THIRD YEAR SUBJECT TOPPERS***

<b>SUBJECT CODE</b>	<b>STUDENT NAME</b>	<b>MARKS</b>
Computer Oriented Numerical Methods	Prajakta Joshi	98
Analysis And Synthesis Of Mechanisms	Prajakta Joshi	88
Heat Transfer	Shivani Pandit	73
Entrepreneurship Developmet	Prajakta Joshi	94
Intellectual Property Rights	Akshata Vaditake	88
Project Management	Sharvari Kulkarni	90
Digital Marketing	Anushri Gujarathi	91
Automation And Control Engineering	Sharvari Kulkarni	92
Computer Oriented Numerical Methods Lab	Sakshi Koshe	34
Analysis And Synthesis Of Mechanisms Lab	Janvi Shinde	33
Heat Transfer Lab	Sakshi Koshe	33
Automation And Control Engineering Lab	Anushri Gujarathi	30
Audit Course-Employability Skills Development	Prajakta Joshi	34
Manufacturing Process- I Lab	Prajakta Joshi	35
Manufacturing Process- II Lab	Prajakta Joshi	35
Material's Technology – II Lab	Shivani Pandit	34



# SEM I - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***SECOND YEAR SUBJECT TOPPERS***

<b>SUBJECT CODE</b>	<b>STUDENT NAME</b>	<b>MARKS</b>
Calculus And Statistics (C&S)	Amruta Puranik	100
Engineering Metallurgy (EM)	Amruta Puranik	89
Engineering Thermodynamics (ET)	Gargi Bhonde	97
Machining And Machine Tool Operations (MMTO)	Suprada Mahadik	83
Strength Of Materials (SOM)	Amruta Puranik	91
Universal Human Values-II	Krishna Chavan	95
Engineering Metallurgy Lab (EM Lab)	Maithili Deshpande	45
Machining And Machine Tool Operations Lab (MMTO Lab)	Gargi Bhonde	48
Computer Aided Machine Drawing Lab (CAMD Lab)	Amruta Puranik	46

### Facts

#### **SOLAR CAR RIMAC NEVERA**

**In a groundbreaking feat of engineering and performance, an all-electric hypercar , the Rimac Nevera has set a new world record by accelerating from 0 to 249 mph and back to a standstill (0-400-km/h) in an impressive time of 29.93 seconds, setting a new benchmark when it comes to automotive excellence.**

# SEM II - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***FINAL YEAR SUBJECT TOPPERS***

<b>SUBJECT CODE</b>	<b>STUDENT NAME</b>	<b>MARKS</b>
Turbo Machines	MANALI DEORE	81
Advanced Manufacturing Processes	SALONEE RASAL	86
Mechanical Vibrations	ESHWARI GUDHATE	82
Renewable Energy Resources	SALONEE RASAL	97
Turbo Machines Lab	MANALI DEORE	52
Project Phase-Ii	PRAJAKTA MAHAJAN	135
Project Based Online Course	PRAJAKTA MAHAJAN	55

### Facts

The tallest freestanding structure in the world is the Burj Khalifa in Dubai, United Arab Emirates. Standing at a staggering height of 828 meters, this architectural marvel took six years to complete and features cutting-edge mechanical and elevator systems to transport visitors to its dizzying heights.

The world's largest wind turbine, the GE Haliade-X, has a rotor diameter of 220 meters, equivalent to the length of two football fields. Each turbine can power approximately 16,000 households.

# SEM II - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***THIRD YEAR SUBJECT TOPPERS***

<b>SUBJECT CODE</b>	<b>STUDENT NAME</b>	<b>MARKS</b>
Applied Thermodynamics	Sakshi Koshe	96
Machine Design	Sakshi Koshe	90
Metrology And Quality Control	Sharvari Kulkarni	91
Swayam Online Course-Project Management	Shivani Pandit	87
Mechanics Of Composite Materials	Sakshi Koshe	89
Computational Fluid Dynamics	Akshata Vaditake	87
Applied Thermodynamics Lab	Sakshi Koshe	33
Machine Design Lab	Sakshi Koshe	31
Metrology And Quality Control Lab	Sakshi Koshe	31
Computational Fluid Dynamics Lab	Rohini Sangle	33
Mechanics Of Composite Materials Lab	Sakshi Koshe	33
Seminar	Anvi Shah	31
Manufacturing Process – III Lab	Janvi Shinde	35

### Facts

In recent years, perovskites have made quite a splash on Earth by demonstrating higher efficiencies when it comes to converting solar energy into electricity. Solar cells made using perovskites could offer scientists that much-needed flexibility and low-cost power source that they seek but it needs to be extensively tested before being sent to Mars or even the Moon.

# SEM II - SUBJECT-WISE TOPPERS

A.Y. 2021-22

## ***SECOND YEAR SUBJECT TOPPERS***

SUBJECT CODE	STUDENT NAME	MARKS
Elements Of Electrical And Electronics Engineering	AMRUTA PURANIK	92
	Krishna Chavan	
Analysis And Synthesis Of Mechanisms (ASM)	Amruta Puranik	90
Fluid Mechanics (FM)	Amruta Puranik	89
Casting, Forming And Joining Processes (CFJP)	Akanksha Chodankar	81
Machine Design (MD)	Amruta Puranik	92
Fluid Mechanics (FM) Lab	Amruta Puranik	47
Design Lab – I (SOM & ASM)	Aabha Kulkarni	48
Machine Shop Laboratory	Aabha Kulkarni	47
Technical Skill Development Laboratory	Amita Jambhale	37

*~By Akshata Vaditake  
(Final Year Mechanical)*

### Facts

#### INTRAMOTEV TUGVOLT

To decarbonize the freight industry and breathe new life into the sector, a dynamic young tech company called Intramotev is set to roll out three self-propelled, battery-electric railcars later this year, marking the groundbreaking milestone in freight mobility.

The world's first commercial maglev (magnetic levitation) train, the Linimo, began operation in Nagoya, Japan, in 2005. It can reach speeds of up to 100 miles per hour (160 kilometers per hour).



# STUDENTS ACHIEVEMENTS

## ACADEMICS (A.Y. 2022-23)

SR NO.	NAME	A. YEAR (SY/ TY/ Final Year)	ACHIEVEMENT	DESCRIPTION	TEAM MEMBERS
1	Rutuja Deshpande	B.Tech	1st rank in ASHRAE Pune Chapter Quiz Competition	The quiz was based on the concepts of Thermodynamics, Fluid Mechanics, Heat Transfer and Refrigeration and Air conditioning. The competition was held in February 2023.	-
2	Pradnya Sonwalkar		2nd rank in ASHRAE Pune Chapter Quiz Competition		
3	Rohini Sangle		3rd rank in ASHRAE Pune Chapter Quiz Competition		
4	Rohini Sangle	B. Tech.	1st rank in ASHRAE Pune Chapter Paper Presentation Competition	In this competition, team had to prepare a reasearch paper on a topic related to advanced HVAC and give a presentation to a jury.	Sakshi M Joshi (B.Tech.), Pradnya Sonwalkar (B.Tech.)
5.	Prajakta Joshi	B.Tech	Selected for Student Leadership Training Conference, ASME	One day training conference where student leaders from around the globe build their professional network, get connected, inspired and empower the next generation of student leaders of their respective student section	-
6	Asra Fatima Husain				

# STUDENTS ACHIEVEMENTS

## ACADEMICS (A.Y. 2022-23)

SR NO.	NAME	A. YEAR (SY/ TY/ Final Year)	ACHIEVEMENT	DESCRIPTION	TEAM MEMBERS
7	Shivani Pandit	B. Tech.	Cummins Fellowship Program at Purdue University	A fully funded thesis-based Master of Science in Mechanical Engineering (MSME) program	-
8	Sakshi Koshe	B. Tech.	Finalist for Nes Innovation Awards	NES Innovation Awards are arranged by GTT Foundation and are for innovative projects. We got selected for top 50 projects from around 700+ projects all over India.	Asra Fatima Husain (B.Tech.), Mrudul Chaudhari (B.Tech.)
9	Pranjal Patil	B. Tech.	Secured Winners Rank in IEEE YESIST12 Prelims International Project Competition	International Project Competition arranged by KPR Institute of Engineering & Technology, Coimbatore, dated 25th March 2023, where they presented their Project along with prototype. The theme was Sustainable Agriculture.	Anuja Patil (B.Tech.), Vaishnavi Gavhane (B.Tech.)
10	Shreya Vijith	B. Tech.	Kedar Tumne Innovation Award from Mechanical Department	Received a cash prize of Rs. 10000 for the most innovative project from Mechanical Department	Prajakta Joshi ( B.Tech.), Sharvari Kulkarni ( B.Tech.) and Rohini Sangle ( B.Tech.)

# STUDENTS ACHIEVEMENTS

## ACADEMICS (A.Y. 2022-23)

SR NO.	NAME	A. YEAR (SY/ TY/ Final Year)	ACHIEVEMENT	DESCRIPTION	TEAM MEMBERS
11	Sharvari Kulkarni	B. Tech.	Conference Paper titled 'Design and Development of Gripper and Setup of Selective Spraying for Precision Agriculture' got selected in NIT Hamirpur conference	The conference was conducted from 15th - 17th February 2023. The paper was selected out of 7200+ submitted papers.	Prajakta Joshi ( B.Tech.), Rohini Sangle ( B.Tech.) and Shreya Vijith (B.Tech.)
12	Suprada Mahadik	T.Y.	AIR 9 in IPTSE	A national Olympiad testing and enhancing knowledge based on Intellectual Property attempted by school, college and university students from engineering, medical, management etc. fields.	-
13	Avani Pande	T.Y.	AIR 2 - MBRDI TechSign Challenge with a cash prize of Rs. 50000/-	The team concept designed a car on the "Upcycling the Past"	Amita Jambhale (TY), Aabha Kulkarni (TY)
14	Maithili Deshpande	T.Y.	Second Runner-up in Eureka Innovation	Redesign of bicycle	Gargi Bhonde (TY Mech) , Yadnya Vyavahare (TY IT) , Neha Vaidya (TY IT)

# STUDENTS ACHIEVEMENTS

## ACADEMICS (A.Y. 2022-23)

SR NO.	NAME	A. YEAR (SY/ TY/ Final Year)	ACHIEVEMENT	DESCRIPTION	TEAM MEMBERS
15	Pranjal Chouhan	TY	AIR 3 - MBRDI TechSign Challenge	Participants were required to design a concept Mercedes car based on a given application/the me	Anvi Shah (B.Tech.), Neha Kulkarni (B.Tech.) & Pradnya Sonwalkar (B.Tech.)
16	Sayali Chakre	TY	Finalists of open automation challenge	Team designed and presented the concept of robotic application for simultaneous welding in EV battery assembly	Akanksha Chodankar (TY), Suprada Mahadik(TY), Devika Surve(TY)

### Facts

**GREEN HYDROGEN:** According to Allied Market Research, the hydrogen fuel cell vehicle market will reach \$ 42 billion by 2026, with a 66.9% CAGR. It will be spurred on by growing environmental issues and international initiatives to address them, as well as the potential of technology alongside electric cars. Hydrogen-powered cars are already produced by Toyota, Honda, Hyundai, Audi, BMW, Ford, Nissan, Daimler. California will build 100 hydrogen filling stations, and plan to bring the number of zero-emission vehicles to 1.5 million by 2025.



# STUDENTS ACHIEVEMENTS (A.Y. 2022-23)

## (P.G. STUDENTS)

M.Tech. Second Year - MECHANICAL ENGINEERING  
AY 2022-23 Sem I Course: Project

C. No.	Roll No.	Student Name	Topic for Project	Industry Name	Duration of Internship	Start Date to End Date
PME2 021101	910 1	Neha Sanjay Awate	Design of Height Positioning Module(HPM)	Philips	10 months	1 sept 2022 - 17 july 2023
PME2 021102	910 2	Neha Madha	<b>Tentative topic for Project</b>	<b>Industry Name</b>	<b>Duration of Internship</b>	<b>Start Date to End Date</b>
		v Desh mukh	Integration of deep learning in finite element Method	Rolls Royce	6 months	
PME2 021103	910 3	Aakan ksha	<b>Tentative topic for Project</b>	<b>Industry Name</b>	<b>Duration of Internship</b>	<b>Start Date to End Date</b>
		Preeta m Gupte	Redefining robustness of NC process management	Cummin s India	10 months	

# STUDENTS ACHIEVEMENTS (A.Y. 2022-23)

## (P.G. STUDENTS)

M.Tech. Second Year - MECHANICAL ENGINEERING  
AY 2022-23 Sem I Course: Project

C. No.	Roll No.	Student Name	Topic for Project	Industry Name	Duration of Internship	Start Date to End Date
PME2 021104	910 4	Vaibhavi Pravin Pawar	Cost Optimization of LV Circuit Breakers Accessories through VAVE	EATON	6 months	7 Sept 2022 - 6 Mar 2023
PME2 021105	910 5	Shivani Vijay Ujagar	Bushing Design, Selection & Optimization for Fuel Pump	Cummins India	10 months	18th October 2022 - 18th July 2023

### Facts

The Saturn V rocket, used in the Apollo missions to the moon, stood at 363 feet (111 meters) tall and generated 7.6 million pounds of thrust during liftoff.

# STUDENTS ACHIEVEMENTS (A.Y. 2022-23)

## SPORTS

S R N O	NAME	A. YEAR (SY/ TY/ Final Year)	ACHIEVEMENT	DESCRIPTION	TEAM MEMBERS
1	Shivani Pandit	Final Year	Volleyball Tournaments	Winner of Elevate 2023 at PICT Winner of Zest 2023 at CoEP Winner of Damini 2023 at Sanstha Runner up at SLS tournament	Anushka Pawar Avni Chawardol Isha Madhavan Akshada Nalkar Prachiti Mujumdar Tanishqa Borse Dnyaneshwari Bangar Dhanshree Deshmukh Ritavi Gaikwad Pooja Bansode Anushka Kore Sakshi Umredkar Harshali Kapadnis Isha Nagori Vishweshwari Valse
2	Shruti Chavan	T.Y.	Basketball tournaments	Runner ups of Euilibria, Runner ups of COEP Zest, Winner of Damini, Winner of Pentacle Runner ups at SPPU	Riya Savant Shruti Chavan Siddhi Kholle Tejesvini savant Samrudhi raut Vaishnavi Mundada Jhanavi Dawkore Khushboo Chaudhari Anisha Jain Alisha Sheikh Tanmayee Dhabadikar Mrunal Vibhute

### Crossword Breaktime Answers:

**Down:** 2 - Pressure, 3 - Energy, 6 - Kinetics, 7 - Lever, 9 - Gravity, 10 - Velocity, 13 - Inertia, 16 - Fulcrum

**Across:** 1 - Displacement, 4 - Sine, 5 -, 8 - Density, 9 - Work, 11 - Force, 12 - Rack, 14 - Tangent, 16 - Friction, 17 - Length, 18 - Vector

# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Week

Sr. No	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Weeks)	Sponsored By
1	Himani Bhalchandra Kadam	5-day Face-to-Face UHV-II FDP	02 Aug 2022 to 06 Aug 2022	Pimpri Chinchwad College of Engineering, Pune	1 Week	AICTE
2	Himani Bhalchandra Kadam	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	-
3	Poonam Bhore	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	-
4	Poonam Bhore	“ADVANCED RESEARCH METHODOLOGY”	27 Oct - 10 November, 2022	Teaching Learning Centre, Ramanujan College	2 Week	-



# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23 Duration of 1/2/4 Week

Sr. No.	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Weeks)	Sponsored By
5	Poonam Bhore	E-content Development	19 Dec-25 Dec 2022	Teaching Learning Centre, Ramanujan College	1 Week	-
6	P. B. Pawar	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	-
7	S.N. Tapase	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	
8	Avinash Shinde	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	ISTE

# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Week

Sr. No.	Name of Faculty	Title of STTP / FDP / Workshop/ Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Weeks)	Sponsored By
9	Avinash Shinde	“ADVANCED RESEARCH METHODOLOGY”	22 Sept to 6 Oct 2022	Teaching Learning Center Ramanujan College	2 Week	Pandit Madan Mohan Malviya National Mission on Teachers and Training
10	Avinash Shinde	Managing Online Classes & Co-creating MOOCS 19.0	7 Oct to 21 Oct 2022	Teaching Learning Center Ramanujan College	2 Week	Pandit Madan Mohan Malviya National Mission on Teachers and Training
11	Yashwant Munde	Managing Online Classes & Co-creating MOOCS 19.0	7 Oct to 21 Oct 2022	Teaching Learning Center Ramanujan College	2 Week	Pandit Madan Mohan Malviya National Mission on Teachers and Training

# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Week

Sr. No.	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Weeks)	Sponsored By
12	Yashwant Munde	Trends and Challenges in Electric Vehicles	02 Jan 2023 to 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	ISTE
13	Harish Shinde	Trends and Challenges in Electric Vehicles	02 Jan - 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	ISTE
14	Vishwanath Mali	Outcome Based Education (OBE)	18 Jan to 25 Jan 2023	S.E.S College, Sreekandapuram	1 Week	
15	S.N. Tapase	Advances in Heating, Ventilation, Air-Conditioning, and Refrigeration	13 Feb 2023 to 24 Feb 2023	COEP Technological University	2 Weeks	AICTE

# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Week

Sr. No.	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Weeks)	Sponsored By
16	Shridhar A.Kedar	Trends and Challenges in Electric Vehicles	02 Jan - 06 Jan 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	ISTE
17	Shridhar A.Kedar	Waste to energy and biofuels	14 Nov. 2022 to 25 Nov. 2022	GOA College of Engineering (Govt.COE GOA)	2 Week	AICTE, ATAL
18	Rujuta Agavekar	Trends and Challenges in Electric Vehicles	02 January 2023 to 06 January 2023	Department of Electrical Engineering, ADCET, Ashta	1 Week	ISTE
19	Rujuta Agavekar	Managing Online Classes & Co- creating MOOCS 21.0	7 Dec - 21 Dec, 2022	Teaching Learning Center Ramanujan College	2 Week	Pandit Madan Mohan Malviya National Mission on Teachers and Training



# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Days

Sr . No.	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Days)	Sponsored By
1	Himani Bhalchandra Kadam	Adoption of NEP modules in Academic Curriculum	30 Nov 2022 to 1 Dec 2022	Department of computer Science & Engineering, CUIET, Chitkara University, Punjab	2 Days	-
2	Poonam Bhore	Adoption of NEP modules in Academic Curriculum	30 Nov 2022 to 1 Dec 2022	Department of computer Science & Engineering, CUIET, Chitkara University, Punjab	2 Days	-
3	Poonam Bhore	Designing course Outcomes and Course - Outcome based Education	14 Dec 2022	in pods	1 Day	-

# FACULTY ACHIEVEMENTS

## Faculty Participation in STTP/FDP/Workshop AY 2022-23

### Duration of 1/2/4 Days

Sr . No.	Name of Faculty	Title of STTP / FDP / Workshop/Seminar/Expert /Trainer	Date (From-To)	Organized By/Venue	Duration (1/2/4 Days)	Sponsored By
4	P. B. Pawar	Adoption of NEP modules in Academic Curriculum	30 Nov 2022 to 1 Dec 2022	Department of computer Science & Engineering, CUIET, Chitkara University, Punjab	2 Days	-
5	Harish Shinde	Ideation to Monetization	16 Feb - 18 Feb 2023	IIC, CCoEW	3 days	-
6	Vishwanath Mali	NEP-2020 Implementation	8 Feb 2023	UGC-Human Resource Development Centre ,Savitribai Phule Pune University, Pune 411007	1 Day	-
7	Rujuta Agavekar	Designing Course Outcomes and Outcome Focussed Questions	14 December 2022	InPods	1 Day	-
8	Rujuta Agavekar	Adoption of NEP modules in Academic Curriculum	30 November 2022 to 1 December 2022	Department of computer Science & Engineering, CUIET, Chitkara University, Punjab	2 Days	-

# FACULTY ACHIEVEMENTS

## Academic Year of Publications: 2022-23 – Journal

Sr. No.	Author [Faculty] Name	Paper Title with DOI Link	Name of Journal	Month Yr Volume, Issue No., & Page no.
1	Beena Limkar, Vinay Vaidya, Gautam Chandekar	Explicit Novel Nonlinear Regression Method to Find Radial Natural Frequencies of Hemispherical Resonator <a href="https://doi.org/10.1007/s42417-022-00712-8">https://doi.org/10.1007/s42417-022-00712-8</a>	Journal of Vibration Engineering & Technologies	24 July 2022
2	Anand Bewoor, Himani Kadam, Rujuta Agavekar, Poonam Bhore	Effective Use of Various Active Learning Techniques for the Course Automation and Control Engineering	Journal of Engineering Education Transformations	December 2022, Volume No 36, Special issue 1, page no. 8-17
3	Mrunal Moharir, Rujuta Agavekar, Poonam Bhore, Himani Kadam and Anand Bewoor	Effective Implementation of Peer Review as an Active Learning Technique to Attain Course Outcome: A Case Study	Journal of Engineering Education Transformations	December 2022, Volume No 36, Special issue 1, page no. 63-72
4	Shinde AS, Siva I, Munde Y, Hameed Sultan MT, Hua LS, Shahar FS	Numerical Modelling of Drilling of Fiber Reinforced Polymer Matrix Composite: A Review <a href="https://doi.org/10.1016/j.jmrt.2022.08.063">https://doi.org/10.1016/j.jmrt.2022.08.063</a>	Journal of Material Research and Technology	October 2022, Volume 20, Page no. 3561-3578

# FACULTY ACHIEVEMENTS

## Academic Year of Publications: 2022-23 – Journal

Sr. No.	Author [Faculty] Name	Paper Title with DOI Link	Name of Journal	Month Yr Volume, Issue No., & Page no.
5	Shinde A, Siva I, Munde Y, Sankar I, Hameed Sultan MT, Mustapha F,	The impacts of graphene dosage on the friction and wear performance of a graphene-reinforced silicone rubber nano composite <a href="https://doi.org/10.1016/j.jmrt.2022.10.007">https://doi.org/10.1016/j.jmrt.2022.10.007</a>	Journal of Material Research and Technology	October 2022, Volume 21, Page no. 1570-1580
6	Pavan R, Prashant A, Ameen T, Yashwant M, Avinash S, Irulappasamy S.	Numerical simulation of low-velocity impact test on PALF/Epoxy bio-composite laminates <a href="http://dx.doi.org/10.18149/MPM.5012022_10">http://dx.doi.org/10.18149/MPM.5012022_10</a>	Materials Physics and Mechanics	November 2022, Volume 50, Pages 15
7	Avinash Shinde, I. Siva, Yashwant Munde, Irulappasamy Sankar, and D. Sivakumar	Assessment of friction and wear as a function of the pressure applied to the CNT-filled silicone rubber nano composite pins <a href="https://doi.org/10.1504/IJSURFSE.2023.128885">https://doi.org/10.1504/IJSURFSE.2023.128885</a>	Int. J. Surface Science and Engineering	January 2023, Volume 17, Page no. 58-71
8	Naidu, M.; Bhosale, A.; Munde, Y.; Salunkhe, S.; Hussein, H.M.A.	Wear and Friction Analysis of Brake Pad Material Using Natural Hemp Fibers. <a href="https://doi.org/10.3390/polym15010188">https://doi.org/10.3390/polym15010188</a>	Polymers	December 2022 Vol 15 No 1 PP 181

# FACULTY ACHIEVEMENTS

## Academic Year of Publications: 2022-23 – Journal

Sr. No.	Author [Faculty] Name	Paper Title with DOI Link	Name of Journal	Month Yr Volume, Issue No., & Page no.
9	S. Prabhune, Y. Munde, A. Shinde, and I. Siva,	Appraising the Acoustic Performance and Related Factors of Natural Fiber: A Review doi: 10.1080/15440478.2022.2099500.	Journal of Natural Fibers,	Aug. 2022, pp. 1-20
10	Harish M. Shinde, Anand K. Bewoor et al.	Engine oil quality deterioration estimation using an integrated sensory system doi: <a href="https://doi.org/10.1177/09544089221135629">https://doi.org/10.1177/09544089221135629</a>	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	
11	Parag Chaware, Rujuta Agavekar	BodhiTree- An Effective Learning Management System for Implementing Active Learning Strategies	Journal of Engineering Education Transformations	December 2022, Volume: 36, Issue: Special Issue 1, Pages: 43-50
12	Rujuta Agavekar , Poonam Bhore , Himani Kadam, Mrunal Moharir	Effective Application of One Minute Paper and Muddiest Point Technique to Enhance Students' Active Engagement: A Case Study DOI: 10.16920/jeet/2023/v36i3/23093	Journal of Engineering Education Transformations	Year: 2023, Volume: 36, Issue: 3, Pages: 8-17



# FACULTY ACHIEVEMENTS

## Academic Year of Publications: 2022-23 – Conference Papers

Sr. No.	Author [Faculty] Name	Paper Title	Name of Conference	Volume, Issue No., (Month/Yr.) & Page no.
1	E. Dias, H. Chalse, S. Mutha, Y. Munde, N. Ambhore, A. Kulkarni, A. Mache,	Review on synthetic/natural fibers polymer composite filled with nanoclay and their mechanical performance <a href="https://doi.org/10.1016/j.matpr.2022.12.059">https://doi.org/10.1016/j.matpr.2022.12.059</a>	Materials Today: Proceedings, Dec 2022 International Conference on “Innovations in Mechanical and Civil Engineering”.	27 Dec 2022
2	Shridhar Kedar, Himani Kadam	Renewable energy sources: new pedagogy technique research-based application-oriented case study presentation	MATHED-2022, International Conference on Emerging Aspects of Manufacturing, Thermal and Design Engineering Conference - NIT Hamidpur	15-17 Feb.2023
3	Deepak Watvisave, Shridhar Kedar, Pravin Mane	Theoretical analysis of water consumption pattern in Pune city, India	MATHED-2022, International Conference on Emerging Aspects of Manufacturing, Thermal and Design Engineering Conference - NIT Hamirpur	15-17 Feb.2023

# FACULTY ACHIEVEMENTS

## Academic Year of Publications: 2022-23 – Conference Papers

Sr. No.	Author [Faculty] Name	Paper Title	Name of Conference	Volume, Issue No., (Month/Yr.) & Page no.
4	Amit D.Kachare, Sumedh S. Ingle, Shridhar A.Kedar	Corrosion Resistant Heat Exchanger for Distillation Plant : A Review	1st International Conference on SCI/TECH and Engineering (ICSTE-2023) - NIT Manipur	17-18 Feb.2023
5	Kolhalkar Nilesh, Jagadale Dhanshri	Standardization – A step towards standard parts classification and maintenance of product and process	MATHED-2022, International Conference on Emerging Aspects of Manufacturing, Thermal and Design Engineering Conference - NIT Hamirpur	15-17 Feb. 2023
6	Nilesh Kolhalkar, Anvi Shah, Janvi Shinde, Neha Kulkarni, Pragalbha Kurane	A comprehensive review on state-of-the-art technologies for welding of Lithium- ion battery module	MATHED-2022, International Conference on Emerging Aspects of Manufacturing, Thermal and Design Engineering Conference - NIT Hamirpur	15-17 Feb. 2023
7	Nilesh Kolhalkar, Rohini Sangle, Shreya Vijith, Prajakta Joshi, Sharvari Kulkarni	Development of Gripper and Setup of Selective Spraying for Precision Agriculture	MATHED-2022, International Conference on Emerging Aspects of Manufacturing, Thermal and Design Engineering Conference - NIT Hamirpur	15-17 Feb.2023

# FACULTY ACHIEVEMENTS

Sr. No.	Name of the Faculty	AY	Research Center/University	Topic of work	Date of Completion
1	Dr.S.A.Kedar	2022-23	KLEF, University Vijayawada A.P.	Experimental investigation of Solar Desalination System Using Evacuated Tube Collector and Compound Parabolic Concentrator	13/09/2022
2	Dr. A. S. Shinde	2022-23	Kalasalangam Academy of Research and Education, Madurai, TN	Development of Nano-Composites for Electromagnetic Interference (EMI) Shielding	09/11/2022
3	Dr. H. M. Shinde	2022-23	ZES, ZCOER, Pune SPPU	Some Investigations for Predicting Remaining Useful Life of Engine Oil	12/12/2022

*~By Sharvari Kulkarni, Shreya Vijith (B.Tech Mechanical)*

## Facts

**A Lalitha is the first female Electric Engineer in India. Also, she was the first female student of CEG(College of Engineering), Chennai.**



# Mechanical Engineering Department Faculty



*~Knowledge, Expertise & Inspiration!~*

## 2023 Graduates!

