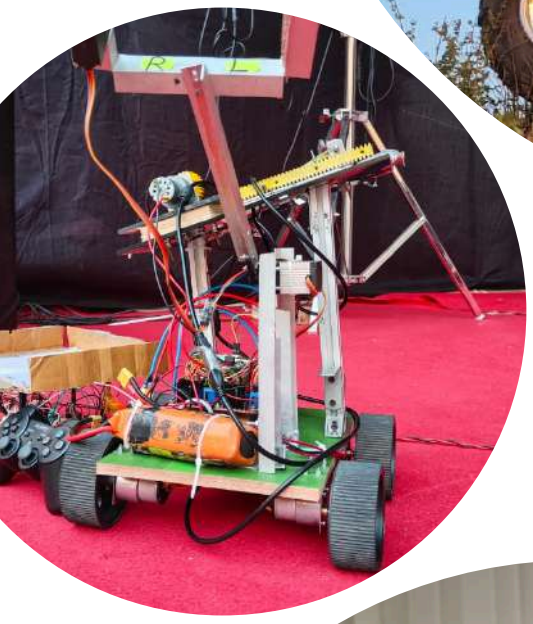
महर्षी कर्वे स्त्री शिक्षण संस्था
ज्ञान
बल सेवा
"शीलं परं भूषणम्"
स्थापना-१८९६

MKSSS's
Cummins
COLLEGE OF ENGINEERING
FOR WOMEN, PUNE

YEAR 2023-24

MECHANICAL EXPRESS



ISSUE#11

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HOD DESK

Dr.Ajit Bhosale : HOD Mechanical Department

Dear Mechanical Engineering Students :
As the Head of the Mechanical Engineering Department, I wanted to take a moment to connect with each of you and share some thoughts as we progress through this academic year.
Mechanical engineering is a field that not only demands intelligence and creativity but also a relentless pursuit of excellence. Your decision to embark on this path speaks volumes about your determination and passion for innovation.
As students, you are at a crucial stage of your journey, where the knowledge you gain and the skills you develop will lay the foundation for your future careers. I urge you to approach your studies with diligence and curiosity.

Take advantage of every opportunity to learn, whether it's through lectures, labs, projects, or internships. Remember, it's not just about mastering the theory but also about applying it in real-world scenarios.

Furthermore, I encourage you to collaborate with your peers and engage with faculty members. Your classmates can offer valuable perspectives and insights, while your professors are here to guide and support you every step of the way. Don't hesitate to seek help when you need it and always strive to foster a culture of mutual respect and collaboration within our department.
Lastly, I want to remind you to never lose sight of your passion for engineering. In the face of challenges and setbacks, it's easy to become discouraged, but it's important to stay focused on your goals and persevere. Remember why you chose this path and let that passion drive you forward, even when the road ahead seems daunting.
I have full confidence in your abilities and potential to succeed in the field of mechanical engineering. Together, let's continue to push the boundaries of innovation and make meaningful contributions to the world.

OUR TEAM

Prof. (Dr.) Ajit Bhosale
HOD MECH

Prof. Poonam Bhore
Faculty Advisor

DESIGN TEAM

Shreya Jadhav
Team Lead, Final Year

Vaishnavi Shirsath
Final Year

Mugdha Desmukh
Third Year

Kashmira Lohar
Third Year

Sanskruti Inamdar
Second Year

Jiya Kalmegh
Second Year

Tarini More
Second Year

Tanisha Joshi
Second Year

LITERATURE TEAM

Sai Phate
Team Lead,Final Year

Prachi Shinde
Final Year

Trupti Jumbad
Third Year

Shravani Kumbhar
Third Year

Samruddhi Vaikar
Second Year

Devashree Harkare
Second Year

Kajol Sharma
Second Year

WORD FROM TEAM

Greetings from the Mechanical Department Newsletter Team!
Join us as we embark on a journey of discovery, exploring topics that ignite curiosity and spark conversation. From technology breakthroughs to cultural highlights, to student achievements, the annual newsletter is your gateway to staying informed and engaged about the activities of the Mechanical Department for the academic year of 2023-24.
With a finger on the pulse of current events and a commitment to delivering quality content, our team is dedicated to enriching your inbox with valuable insights and inspiration. We express our sincere gratitude to the entire team for their continuous effort and work, over the past few months. We thank all the team members of all the clubs, all faculty members for their support and co-operation. We thank our faculty advisor, Prof. Poonam Bhore Ma'am, for her inputs and support. Get ready to dive deep into the world of ideas with us! Presenting the Mechanical Department Newsletter for 2023-24!

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.

TOPPERS 2022-23

U.G. TOPPERS

Sakshi Kose
Final Year

Amruta Puranik
Third Year

Surbhi Sangale
Second Year

P.G. TOPPERS

Neha Awate
Second Year

Vaishnavi Meharkule
First Year

CHAPTER SAE-TEAM ZENITH

SAE - Team Zenith mBAJA Vehicle

BAJA SAE is an intercollegiate engineering design competition, which is conducted by the organization of SAE (Society of Automotive Engineers) where teams of undergraduate engineering students from all over the country compete to design, fabricate, and run offf-road vehicles that can withstand the harshest conditions and be driven in extremely rough terrains.

Team Zenith10.0

Cummins College of Engineering's SAE Baja team, Team Zenith has been participating in this event for the last 11 years. Each year, the competition is divided into 2 sections - Virtual Events and the Main Event. Score of the virtual event and dynamic event are evaluated for the final result.

The main event is categorized into:
The Static Virtual Event- assesses teams' knowledge of the automobile sector through a question-answer round. Criteria include design, manufacturing, sales, cost, marketing, and CAE analysis.
The Dynamic Event-typically off-road, became virtual this year. It evaluates technical aspects such as acceleration, brakes, maneuverability, hill climbing, suspension, traction, and an all-terrain endurance run.

HIGHLIGHTS OF 2024
NATIONALS (January 10– January 13 , 2024)
Virtual Event highlights
Preliminary round (Phase1)
Overall – AIR7
Presentation – AIR4
Preliminary round (Phase2)
IPG carmaker was used for the simulation of ATV vehicles. The dynamic event was held using this software.

CHAPTER SAE-TEAM ZENITH

Team Zenith-mBAJA Vehicle

TEAM HIGHLIGHTS
On-Site Validation event: AIR 2
Maneuverability- AIR 7
Overall Award – AIR8
Acceleration – AIR6
Sledge Pull – AIR1
CAE - AIR7
Go green - AIR5
Endurance - AIR8
Speciality event - AIR10

The event saw the unveiling of their four wheel drive ATV named ROAR on January 10th, 2024 ."ROAR," our All-Terrain Vehicle, epitomizes our racing spirit, excelling on diverse landscapes and in extreme climates

Salient features include 4-wheel drive, customized differential, AFCO 63 series, disc brakes with tandem master cylinder, two-stage reduction gearbox, and a data acquisition system.
Team Zenith overcame technical challenges and remote work obstacles to achieve remarkable results through persistence and hard work. Guidance from ex-members and faculty advisors optimized designs, learning from past mistakes and fostering confidence. As a growing family, they defy gender stereotypes and exemplify women's capabilities. Team Zenith 10.0's success fills us with pride, eagerly anticipating their future endeavors.

Team Zenith 10.0 members embarking on the path of victory

CHAPTER SAE-TEAM ZENITH

Faculty Advisor - Prof. Nitin Patil (Mechanical Engineering Department)

Name	Position	Year
Jui Bhasale	Captain	T.Y.Mechanical
Shreya Bhosale	Vice-captain	S.Y.Mechanical
Tanaya Naik	Driver	T.Y.Mechanical
Sharvari Ghorpade	Treasurer	T.Y.Mechanical
Manasi Choudhari	Rollcage	T.Y.Mechanical
Aayushi Jagtap	Transmission	T.Y.Mechanical
Indrayani Naik	IPG,CAE	T.Y.Mechanical
Madhura Bartakke	Steering	T.Y.Mechanical
Shrushtee Gaikwad	Suspension	T.Y.Mechanical
Sanika Kulkarni	Suspension	T.Y.Mechanical

CHAPTER SAE-TEAM ZENITH

Name	Position	Year
Gargi Bahalkar	Transmission	S.Y Mechanical
Aditi Kulkarni	Transmission	S.Y Mechanical
Ashwini Salunkhe	Suspension	T.Y.Mechanical
Himani Kulkarni	Suspension	S.Y Mechanical
Snehal Pawar	Suspension	S.Y Mechanical
Razia Ahmed	Steering	S.Y Mechanical
Shrutika Karande	Steering	S.Y Mechanical
Kshitija Ghorpade	Brakes	T.Y.Mechanical
Sai Motade	Brakes	S.Y Mechanical
Krishna Manke	Rollcage	S.Y.Mechanical

- By Samruddhi Vaikar
S.Y. Mechanical

CHAPTER SAE - TEAM BHARADWAJ

Team Bharadwaj is the official aeromodelling club of MKSSS's Cummins College of Engineering for Women, Pune. They are a group of dedicated Aviation enthusiasts who conceive, design, fabricate and pilot fixed-wing RC aircrafts. Team Bharadwaj designs and amp; fabricates both regular class and micro class RC Aircrafts for the national level SAE DDC Competition annually.

Bharadwaj's Aircraft

Drone Development Challenge (DDC) by SAE India

Team Bharadwaj has achieved an incredible feat, securing an outstanding AIR 2 - Best Aerodynamic Analysis (CFD) in the regular class category. The team soared above the competition at the prestigious Drone Development Challenge (DDC) organized by SAE India.

The journey to this triumph was no easy task. Over the course of three intense days, the team battled it out with over 80+ teams hailing from esteemed institutions across India, including the highly-regarded IITs and NITs. This accomplishment fills us with a sense of accomplishment, and it reaffirms our commitment to innovation and engineering excellence. The future holds endless possibilities, and Team Bharadwaj is ready to embrace them with enthusiasm and determination.

SAE Competitions

• 2019: Achieved an impressive AIR 6 - Micro Class Overall
• 2020: Soared to AIR 3 - Regular Class Overall
• 2021: Achieved the pinnacle with AIR 1 - Regular Class and the Best Technical Presentation Award
• 2021: Secured AIR 1 at the BIT TechFest SmartDrone challenge
• 2022: Maintained excellence with AIR 9 - Micro Class Overall
• 2023: Shined bright with AIR 2 - Best Aerodynamic Analysis (CFD)

Drone Competitions

• BIT TECH Fest: Conquered with AIR 1
• UDAAN Ideation: Soared to AIR 2

Team Bharadwaj

CHAPTER SAE - TEAM BHARADWAJ

Faculty Advisor: Prof. Dr. Atul Joshi (Instrumentation & Control Engineering Department)

Name	Position	Year
Vaishnavi Pawar	Vice Captain	T.Y. Mechanical
Saloni Gaikwad	Design Lead	T.Y. Mechanical
Nayyara Sayyad	Manufacturing Lead	T.Y. Mechanical
Priya Shrivastava	Member	F.Y. Mechanical

- By Shravani Kumbhar
T.Y. Mechanical

FACT TIME!

The largest airplane ever built is called the Antonov An-225 Mriya. It was designed and built in Ukraine in 1988 primarily to transport parts of the Soviet space shuttle program. This airplane has six engines, 32 wheels for landing gear, and a wingspan about twice as long as a football field!

ASME

Since its inception in 2015, our Cummins College of Engineering has hosted ASME (American Society of Mechanical Engineering) student section, a community dedicated to professional growth and engineering excellence.
The section typically focuses on organizing a wide range of activities including technical workshops, seminars, guest lectures by industry experts, and industry field visits. These activities supplement the academic curriculum and provide students with practical knowledge and experience beyond the classroom.

ASMEXMozilla Website Launch

Having a website for a student club is essential for enhancing accessibility, visibility, communication, professionalism, resource management, and networking. The ASMExMozilla Club Website Launch was a collaborative event held on 29 June, celebrating the launch of the ASME-CCOEW Student Section's website created by Mozilla Club of CCOEW. The members of the Mozilla Club built the website by brainstorming together, working enthusiastically, and communicating simultaneously with ASME CCOEW. They proudly showcased the website and shared their collective experiences of working on this project. The chairperson of ASME CCOEW also thanked the club for providing ASME CCOEW with a new platform.

Internship talk 4.0

ASME Cummins Student Section arranged an Internship Talk for SY, and TY students of the Mechanical, Entc, and Instrumentation Department. The event was scheduled for 2 days i.e. on 9th and 10th September 2023.
The speakers for the first day of the event were

1. Maithili Deshpande (Former Intern at Schneider Electric)
2. Poorva Ghanekar (Former Intern at Ansys)
3. Aboli Pakhale (Former Intern at Hirschvogel)
4. Swaralee Dabke (Former Intern at Garrett Motion)

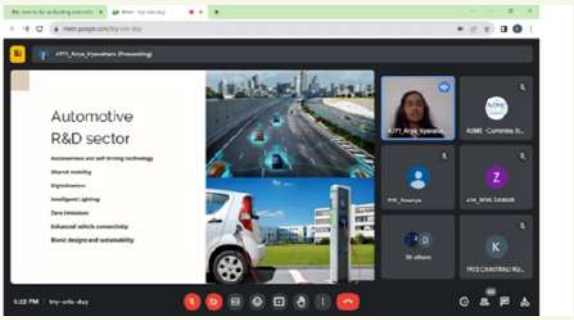
The speakers talked the audience through their entire internship experience. They informed the audience of the questions asked during their interviews. They briefly touched upon the projects they had recently finished during their internship. Additionally, they advised what the audience should do once they start their internship, like keeping a daily journal and noting things they have learned for the day.

The speakers for the second day were

1. Ms. Arya Vyavahare (Mercedes Benz R & D)
2. Ms. Shreya Bahalkar (JCB)
3. Ms. Shivani Pandit (Purdue University).

ASME

These alumni of Cummins College shared their experiences about their internships and their current company experience. They guided students on how to apply for an internship and placements, the preparation and skills required for the interview and how to apply to universities for higher education. Students learnt about the scholarship process that Cummins provides and the details of the necessary entrance exams like GRE, and TOEFL were explained.



Internship Talk : Day 2

Reverse Engineering event

Reverse Engineering was a fun, short activity organised by ASME student section on 8th February 2023. Many students participated willingly. The students had to make a crossword within a given time. In this event, the students were given a particular theme, according to it, they had to fill in the related words and create their crossword within the 15-minute time limit.The themes for the event were Space, Automobile, Sustainability, Machines , Industry.

Industry Visit at Lear Corporation

On 29th March 2024, ASME - CCOEW arranged an industrial visit to Lear Corporation, Chakan. Lear Corporation is a global leader in automotive seating and electrical systems. With operations in over 39 countries, Lear supplies its products to major automakers worldwide. The company officials provided answers which deepened students' knowledge of concepts like JIT, Free Cash Flow, IATF standards, Foam manufacturing etc. They gave insights into how they planned to be more sustainable by prioritising renewable sources in their production and packaging. After a safety brief, the students were taken on a tour of the shop floor where they could see various assembly lines. Overall, the industry visit experience was positive and interactions with industry professionals were informative.

Industry Visit Group Photo

ASME

Faculty advisor: Prof. (Dr.) Yashwant Munde (Mechanical Engineering Department)

Name	Position	Year
Maithili Deshpande	Chairperson	Final Year Mechanical
Aboli Pakhale	Vice-Chairperson	Final Year Mechanical
Poorva Ghanekar	Secretary	Final Year Mechanical
Chaitrali Kulkarni	Associate Secretary	T.Y. Mechanical
Swaralee Dabke	Program Lead	Final Year Mechanical
Surabhi Sangale	Associate Program Lead	T.Y. Mechanical
Mugdha Deshmukh	Documentation Lead	T.Y. Mechanical
Vedika Nalla	Associate Documentation Lead	S.Y Mechanical
Gayatri Kulkarni	Associate Treasurer	S.Y. Mechanical
Ananya Bhusare	E-Publicity Lead	S.Y. Mechanical

- By Trupti Jumbad
T.Y. Mechanical

ASME

ASME CCOEW 2023-24 Team with Faculty Advisor Prof. (Dr.) Yashwant Munde

Executive Committee at Lear Corporation - Industry Visit

ASHRAE

Ice Plant Factory - Baramati

About

American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), was formed in 1959. It is a global society which is advancing human well-being through sustainable technology for the built environment. The Society and its members focus on building HVAC (heating, ventilation, and air conditioning) systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry

Belimo Kandivali - HVAC Technology

Visits-

In the past year, members of the ASHRAE team of MKSSS Cummins College visited -

1st: Cold Storage in Khedshivapur— During the first visit to a cold storage facility in Khedshivapur, the ASHRAE team examined the refrigeration systems and insulation methods employed to maintain low temperatures for storing perishable goods. They have assessed the efficiency of the refrigeration equipment, evaluated the insulation materials used, and discussed challenges faced in maintaining optimal conditions for cold storage.

Freshlink Agro - Cold Storage

2nd: Persistent, Pune— The ASHRAE team's visit to Persistent in Pune was focused on assessing the building's HVAC systems. They reviewed the design and implementation of heating and

cooling systems, evaluated indoor

ASHRAE

air quality measures, and discussed energy efficiency strategies. Additionally, they discussed specific challenges and/or innovations related to HVAC systems in the context of the IT industry.

3rd: Ice Plant Factory in Baramati— During the visit to the Ice plant factory in Baramati, the ASHRAE team observed the production process of ice and assessed the refrigeration systems used in the factory. They also examined the efficiency of the ice-making machinery, evaluated the refrigerants and cooling techniques employed, and reflected on environmental and/or energy-related considerations in ice production.

4th: Belimo, Navi Mumbai— The ASHRAE team's visit to Belimo in Navi Mumbai focused on evaluating the company's products and technologies related to HVAC control systems. They reviewed the design and functionality of Belimo's valves, actuators, and sensors used in HVAC systems, discussed innovative features or improvements, and exchanged insights on industry trends and best practices in HVAC control technology.

Achievements -
The below competitions were held amongst members of ASHRAE from various colleges. Quiz competition (24/02/2024)
The quiz consisted of 3 rounds. The first round consisted of multiple-choice questions as an elimination round. The second and third rounds had in-person question-answer sessions.

Winner- Vaishnavi Patil (CCOEW)
1st runner up- Omkar Nikam (MMCOE)
2nd runner up- Neha Patel (CCOEW)
$5000 granted by ASHRAE for project - Design and Development of a Test Bench to Evaluate the Performance of various Energy recovery devices - Prof. Rujuta Agavekar

Paper Presentation (24/02/2024)
The paper presentation involved a team of two writing papers on a particular topic and presenting it in front of the judge. The topic taken by the winning team was MRI Cooling.
Winner – Chaitali Kute (CCOEW) and Vikas Sanap (VIT)

- By Kajol Sharma
S.Y. Mechanical

ASHRAE

Faculty advisor: Prof. (Dr.) Parag Chaware & Prof. Rujuta Agavekar
(Mechanical Engineering Department)

Name	Position	Year
Tisha Bais	President	T.Y. Mechanical
Mital Paratane	Vice-President	T.Y. Mechanical
Pratiksha Divate	Secretary	T.Y. Mechanical
Vaishnavi Patil	Treasurer	T.Y. Mechanical
Mrunal Khatke	Member	T.Y. Mechanical
Trupti Jumbad	Member	T.Y. Mechanical
Kashmira Lohar	Member	T.Y. Mechanical
Kirti Alai	Member	T.Y. Mechanical
Neha Patel	Member	T.Y. Mechanical
Sakshi Ninale	Member	T.Y. Mechanical
Vaishnavi Borkar	Member	T.Y. Mechanical
Sonam Khatal	Member	T.Y. Mechanical
Sharvani Gogawale	Member	T.Y. Mechanical
Sakshi Patil	Member	S.Y. Mechanical
Neha Nikam	Member	T.Y. Mechanical
Vaishnavi Dhotre	Member	T.Y. Mechanical
Sakshi Chavan	Member	T.Y. Mechanical
Manali Yadav	Member	T.Y. Mechanical
Aishwarya Mahajan	Member	S.Y. Mechanical
Dhanshri Nirale	Member	T.Y. Mechanical
Chaitali Kute	Member	T.Y. Mechanical
Riya Shrawane	Member	T.Y. Mechanical
Geeta Kadam	Member	T.Y. Mechanical
Aditi Sant	Member	T.Y. Mechanical
Vaibhavi Magdum	Member	T.Y. Mechanical

TEAM ADIRA

Team Adhira is the official student formula team of MKSSS's Cummins College of Engineering for Women, Pune, India. They are currently the first and only “All women’s team in the Formula Bharat competition under the electric category and aim to inspire and motivate more women engineers to make their mark in the world of motorsports.

Team Adira

Faculty advisors - Dr. Prachi Mukherji and Dr. Nitin Palan
(Electronic and Telecommunication Department)

Name	Position	Year
Palavi Gaikwad	Captain, Technical Lead	T.Y. Mechanical
Apurva Bhagwat	Chassis Lead	T.Y. Mechanical
Shravani Gogawale	Vehicle Dynamics Lead	T.Y. Mechanical
Sweta Vimal	Brakes Lead	T.Y. Mechanical
Pranavi Deshmukh	Vehicle Dynamics Member	T.Y. Mechanical
Pranjal Chouhan	Mentor, Vehicle Dynamics Member	Btech Mechanical
Vaishnavi Borkar	Vehicle Dynamics Member	T.Y. Mechanical

- By Shravani Kumbhar
T.Y. Mechanical

VINIDRA

TEAM INFORMATION :

Team Vinidra is the Satellite team of CCOEW, Pune (founded September 2021) aims to develop the satellite - " KARVESAT " - in the honor of Maharshi Karve, with the help of ISRO. The members work on hands-on projects, participate in competitions, conduct research and literature surveys, attend various workshops, etc.
The team won the 'Best Teamwork award' in the CanSat India 2022 competition held during April 15 to 17 2024 in Ahmedabad, Gujrat.

Best Team Work award

Faculty Advisor : Dr. Seema Rajput (Electronics and Telecommunication Department) & Dr. Dipti Patil (Information Technology Department)

Name	Subsystem	Year
Mugdha Deshmukh (Lead)	Structure and thermal	T.Y. Mechanical
Janhavi Bhopale	Structure and thermal	T.Y. Mechanical
Shreya Dhumal	Structure and thermal	S.Y. Mechanical
Mrunal Bodas	Structure and thermal	S.Y. Mechanical
Sanskruti Inamdar	Structure and thermal	S.Y. Mechanical
Priya Shah	Structure and thermal	Btech Mechanical
Aditi Sant (Lead)	ADCS	T.Y. Mechanical
Tarini More	ADCS	S.Y. Mechanical
Devika Surve	ADCS	Btech Mechanical

- By Devashree Harkare
S.Y. Mechanical

SURYAKSH

Team Information

The solar vehicle team, group comprises about 20 undergraduate students from MKSSS Cummins College of Engineering for Women, Pune.

The team was founded in 2021, by Prerna Burande, Pranita Dhakne and Kalyani Deshmukh

Type of vehicle we are aiming to make to participate with in NSVC

Subsystems

1. Mechanical
2. Electrical and Electronics

All the team members are mainly divided into these two subsystems.

Faculty Advisor : Dr. Seema Rajput (Electronics and Telecommunication department)

Name	Position	Year
Gayatri Kulkarni	Member	S.Y. Mechanical
Shraddha Bhabad	Member	S.Y. Mechanical
Bhuwneshwari Giri	Member	S.Y. Mechanical
Samyukta Nair	Member	S.Y. Mechanical
Adima Aphale	Member	S.Y. Mechanical
Tanisha Joshi	Member	S.Y. Mechanical
Isha Mahajan	Member	S.Y. Mechanical
Mrunal Harischandre	Member	F.Y. Mechanical
Aditi Chitode	Member	F.Y. Mechanical

- By Devashree Harkare
S.Y. Mechanical

INDUSTRY EXPERT INTERVIEW

Mr. Pravin Nakod, Ansys

Introduction:
Mr. Pravin Nakod, who is a senior manager in the Ansys Customer Excellence Team, in the Fluids Business Unit. He has a Masters in Fluids and Thermal Engineering from the Indian Institute of Technology, Powai. He has been working with Ansys(Fluent till 200) since 2005 and has 19 years of experience in The field of Computational Fluid Dynamics!

Q1. Sir, could you please share your career journey with us?
Ans: After my 10th, I got my diploma in Mechanical Engineering. I completed my diploma in Amravati in 1993. I joined the Government College of Engineering, Amravati for my bachelor's in mechanical engineering. At the end of my final year of B.E., I lost my father, so I had to take up the responsibility of providing for my family, as I was the elder son in my family. I planned to go for my master's right away, but I had to change my plan. So, I started a lectureship as a professor at the Government Polytechnic College, Khamgav which is close to Balapur, where my family stayed. So I could be close to them as well. I stayed at Khamgav for a year, after which I moved to Kavikulguru Institute of Technology, Ramtek, which was a big institute, and reputed as well. So, I stayed there for 3 years. In that period, I saw that things were settling down with my family, so after that, I planned for my Masters. I did my MTech. at IIT Powai, in Thermal and Fluids. And through campus hiring I got placement at Ansys, it was known as Fluent then, and I've been with Ansys since then, it was 2005 then, so 19 years now!

Q2. Sir, you began your career in the teaching field and now you are in the corporate. So how was that transition for you?
Ans: It was very easy towards the beginning. And you need a passion to keep So they are both very different entities. In teaching, you need to be very well-connected with your students. And you cannot say that I know everything and have to be open to learn together with the students. In corporate, my teaching experience helped me a lot. And the corporate world is far beyond that what you imagine as a teacher. I don't wish to say that it's good or bad. But given a choice, I would always like to go back to being a teacher. Because that is my job as a passion. And for the transition part, jumping from MTech to corporate helped me a lot, rather than

going directly from teaching into corporate. Both jobs have their individual challenges in their field.

Q3. So, you have done your Masters in Thermals and Fluids, and you are the manager for a CFD team in Ansys. So given the current technological trend, where every field is changing dynamically, where do you think CFD is headed?

Ans: I think there is some wonderful talent available, who wish to take and continue with CFD as their career. Even undergrads know what CFD is and can use it for their problems, whereas when we were in college, all we knew was that it was something to do with computers. So that's a great change we are seeing already. How it will evolve for the next 10-15 years, given the trend for Machine Learning and Artificial Intelligence, we are guessing that these domains will come together. So for those, who want to make a career in CFD, integrating these new and emerging technologies such as DigitalTwin, Ai-Ml, into their discipline, and then figuring out on how to create a value for their product can be very promising. So especially while designing a new product, there are many different variables which need to be governed. So using these new technologies, instead of running a conventional CFD code, which can take up to 5/6 days, a smart code can be created using AI-ML, which will show the variation in the field data, and give the required answers in minutes without running every case individually. So yes, this is the journey I think which, CFD will follow. Whenever we hire, we look at many different criteria, like attitude, tenure etc. But on the top of it, we have a lengthy process to evaluate a candidate for technology, basic skills, fundamentals of fluids, heat transfer, thermodynamics, modular theories etc. And that's very important. And even though technologies are there, which will give answers in a minute or so, but understanding if the results are accurate or not, that's where the engineer's role lies, or that's where Physics comes into the picture. So any result can be produced with CFD or AI, but to analyse if that result makes sense, a lot of Physics is involved, and an engineer will be able to interpret it only when they have strong fundamentals in Physics.

Q4. How do you stay updated with technological trends, or the evolution of technology, and how do you apply it to your work simultaneously?

Ans: That's a great question! So, in Ansys, we are part of the Ansys Customer Excellence team, so it's the team which is always in touch with customers. And with every interaction, we find something new. So, we are connected to various customers in the research and development filed, so it helps us to

find out which research is ongoing, what is new etc. in the industry, what are the updates, requirements etc. Secondly through our network with industries such as IITs and other universities, we get to know what research different professors are doing, or what the students are like. Then we have interns who work in the company, and we also get to learn a lot by observing them. Because the academic syllabus which we had, verses the one one you guys have has changed so drastically, and you guys have a lot more hands-on experience than we did. So that's some great exposure, and with interns it gives us an opportunity to interact with the students and learn about the new things too. Then we have conferences, research papers, forums and while we don't jump directly, but we analyse the trend of the field, to see where it will go in the next few years. For example, hydrogen fuel cell technology, is something which has been undertaken by many different organizations at a global scale with an aim to reduce carbon footprint with a timescale in mind. So with this also come different challenges, and we a s a company try to analyse these challenges, and see where simulation can help them.

Q5. Sir, you said that you have 19 years of experience at Ansys, so what motivates you everyday to go and work at Ansys?

Ans: If I talk about Anys, you never get routine work. There is always something new to perform, opportunities are huge, and you are facing customers who will always have different challenges. So, we get to help them, work with new technology as it progresses, and we get to work on new and emerging trends. Even after so many years, every year there is something new and different which I have done, in a new technological area. It's a great open-minded culture, everyone is very helpful, so all these aspects are there. This gives me the satisfaction, of this kind of job.

Q6. In CFD, we have pre-processing and post-processing. So which one would you prefer the most?

Ans: So, I would actually pick both of them! But, my first project in Fluent was actually a pre-processing one, I had a solid body, and I has to create a full hex-mesh on the body. So of course as I was new and I was also learning, I had lot of help from a lot of colleagues, and I still have that file saved on my computer, as 'First Project". So definitely, for CFD kind of simulations, you need a very good mesh. And there are tools to guide and help with that, but when there is a huge assembly, like a wing, or blade, you need a very good mesh before the simulation. So I am not doing mesh directly now, but for me the pre-processing or mesh is always

INDUSTRY EXPERT INTERVIEW

important. And as for the post-processing part, once the results are there, you can match the results with the analytics, but you have to excite the audience, with your post-processing skills. For example, how to balance the scale, the contours, to show youhave done a good job with the simulation.

Q7. How did you deal with challenges you faced in your career?

Ans: So as I said before, I lost my father very early, and that was a family-level challenge I encountered. But, later on, if you know the situation well, if you know your surroundings well, you know whom to reach out to, you know who can mentor you well for your situation that matters a lot. So, a mantra I would give is, keep talking to your mentors and professors. I am still connected with a professor I had in my bachelors, and I still take his suggestions and views.

Q**8. What is some advice you would give for our aspiring mechanical engineers?**

Ans: So firstly, I believe that Mechanical engineers are smart enough, to deal with anything which comes their way,
so may it be a battery, a robot, strength analysis, fatigue etc. So even if products like IC engines, may be getting old, or replaced with a newer trend like Hydrogen-Combustion engines, electric motor etc, opportunities will always be there. Don't think that the mechanical career is over. Keep the passion of learning, and there will always be enough opportunities in the core of mechanical engineering. Keep updated with new and emerging technologies like AI-ML, flew your core skills through projects and papers, and you will be able to have a satisfying career in the core filed as well.

- By Sai Phate
Final Year Mechanical

FACT TIME!

The term "mechanical engineering" was first used in the 18th century by the French engineer and mathematician, Guillaume Amontons. He is credited with coining the term to describe the application of scientific principles to the design and construction of machinery.

ALUMNI INTERVIEW

Akanksha Narain -2012 batch

Q1. Can you tell me something about yourself? How was your journey after Graduation? (from college to Cummins to Johnson and Johnson?)

Ans: I graduated from Cummins college in 2012, and went on to work for Cummins till 2015. During the time I spent working in Cummins, I connected with a diverse set of accomplished individuals, and kept exploring the career options/paths to realize where my real interest lied. I wanted to go for a Masters, but I wanted to be sure of the field so that I could match my strengths to my work and get excited with the things I would do for myself. This is where I reaffirmed my choice of pursuing an MBA, and went on to get a post graduation from SP Jain in Business Management. The 2 years of MBA helped me look at the industry options and roles, and I made up my mind to work in an FMCG industry. The high volume, fast paced, close to consumer mindset excited me so I joined Johnson and Johnson as a Management Trainee.

I spent 5 years building up the ecommerce business and handled West India as a demand planner, before I moved to Dubai as a Senior Demand Planner. My current role in Dubai gave me another opportunity to see a completely different market wherein I support the business in 12 countries. It has been an exciting journey so far, with the foundation built in Cummins college and I am keeping an open mind for the journey ahead.

Q2. How did you balance academics, extracurricular activities, and social life during your time at the college?

Ans: Looking back, I strongly feel it is important to balance academics along with any activity one enjoys. Focusing on academics is of paramount importance, simply because no matter where we want to reach professionally, every recruiter looks at our academic performances to gauge our caliber initially. Before a person even gets to know you, the credentials are built based on our academic backgrounds. While academics builds up the base, extracurriculars help you develop as an all rounder and helps in building a discipline in life (for me it did). Take time to enjoy and do whatever you like, it may seem like a distraction at times, but it freshens up your mind and really helps

expand one's horizon and thought process. As for social life, I think it is a very important piece of your college life, the friendships, the networks that you build here will stay for life. I still cherish the fun times, the chats, the activities with the circle back then.

Q3. What motivated you to pursue a career in mechanical engineering?

Ans: Engineering to me meant something hands-on, something where I felt a bit like the traditional engineers. I had my grandfather as a role model for engineers and he was a Civil Engineer working on projects to build different things. Hence, the idea of mechanical engineering cropped in my mind and to get that in a campus where I was surrounded by girls with similar interests was the cherry on top. I never felt out of place, in fact empowered and ready for the world.

Q4. How did your college experiences, especially at our institution, prepare you for your career?

Ans: Cummins college holds a very special place in my heart – it exposed me to an open environment, helped me hone my skills in an all around manner. The support from our faculty (be it a field trip and the fun associated with it, be it Gandhaar or any inter collegiate fest or any internship/recommendation letters) is amazing. It also gave me a comfort zone where I could be myself, in fact one of the very early indications of trying a masters in business instead of a technical masters came to me from one of our professors. I like the openness it gives, it helped me build as an individual. The one thing I think we develop the most in our institution is confidence and fearlessness with sensitivity towards others, before getting in the real world. I think this confidence has helped me have a good attitude in my career and I am sure I want to carry such traits in myself for a long time.

Q5. Can you describe your current role in brief?

Ans: In my current role, I am working as a senior demand planner in Johnson & Johnson, Dubai. I handle supply chain (making sure all the stock is available in the stores/ecommerce platforms and for the consumers) for brands like Johnson's baby, Neutrogena, Listerine, Stayfree, Carefree, Clean & Clear, Benadryl etc for markets in the Gulf, Levant and Africa.

Q6. What are the typical responsibilities and challenges that you face in your job everyday?

Ans: Responsibilities – In a nutshell, my job is to ensure hundreds of different types of products are always available on thousands of shelves, in millions of quantities, and maintaining minimum inventory.
It involves decision making that can have impact on consumers on a daily basis .

at the same time impacts the organization's finances directly.
Challenges – At the core, the international supply chain is very complex, involving high lead times, different regulations at each stage. Layering on top of it, geopolitical situations in different markets (countries) make my job very challenging. I have to be practical making all decisions backed by data and facts, yet sensitive and sometimes balancing it all is very difficult.

Q7. Are there any specific projects or achievements in your career that you're particularly proud of?

Ans: It take a lot of pride in the way I was able to contribute to Johnson and Johnson's response during the COVID crisis. Being able to react and support essential items such as Stayfree, Johnson's baby stocks – being able to manufacture in the factories with precautions and send the stocks from factories to the retail shops for consumers to be able to get the essential items. Maintaining safety and health of all involved in the whole process – it was tough, but I am always going to look at it with a sense of pride.

Q8. How important do you think networking and connections are in the industry, and how have they impacted your career?

Ans: It is very important to build a good network, it helps to seek suggestions when you are confused or need someone to guide you. I have personally benefited from the network in multiple instances, having someone as a guidepost can reinforce your choices and sometimes correct the course if needed. For me, just knowing someone does not constitute a network or a connection. I believe building an honest relationship is most important to ensure the strength of a network. I would choose a narrower network based on deep relationships over a wide, but shallow network. A network is as much about giving back than taking in.

Q9. In what ways do you continue to learn and grow professionally?

Ans: I always try to seek opportunities, be open to failure and personally I don't try to match what everyone is doing or follow the path that majority of the people may be following. My suggestion is to see what matters to you the most and put your heart to it – do anything you want but do it the best you can! I have seen in my career that it is easy to find people who have the qualifications needed for a job, but it is rare to find someone who has the right attitude to take up and finish the task on hand.

Q10. Looking back, is there anything you wish you had known or done differently during your

ALUMNI INTERVIEW

college years to better prepare for your career?

Ans: As a working mom today, time is a scarce commodity, and I find myself optimizing every minute of my day. I often wonder how much free time I actually had during college, and how well I could have put it to use to not only focus on my career, but also spend much more quality time with my friends. Maybe, learning a little bit more about the industries, roles and different career paths early on (during college) would have been great.

Q11. Did you face any failures during the journey and how did you overcome them?

Ans: Fortunately, I have not had any major failures so far in my career journey. However, I did have a few low points in this journey where I didn't get the best results as per my expectations. My strategy of coping with it was just to keep believing in my strengths and being resilient.

Time and patience are very underrated, and we only understand this as we grow up. I am saying this at the risk of sounding almost philosophical

Q12. How different is this Akanksha Narain (of 2024) to the student Akanksha Narain at Cummins?

Ans: Definitely more mature and responsible, but still the same simple, honest, hard working person at heart.

Q13. What message would you like to give the students who will soon be working in industries?

Ans: Be yourself, find your anchor and keep taking up newer opportunities but also find stability. Take steps without a lot of regrets, the opportunities now are more diverse than what we had, so it is important to think through before you leap. Most importantly, enjoy everything you do – it makes things simpler and lesser of a task.

- By Prachi Shinde
Final Year Mechanical

THE BEST OUTGOING STUDENT

Best Outgoing Student - Suprada Mahadik

Being recognised as "THE BEST OUTGOING STUDENT" is an impressive honor that acknowledges a person's outstanding academic achievement, remarkable abilities and all-around superb performance during their academic career. This year's title is awarded to Ms. Suprada Mahadik, who is a final-year B.Tech mechanical student. Suprada's hard work and dedication are evident in this award, which she received, and it should inspire others. Let's learn more about her and the highlights of her academic career over the years. **Q1. Can you tell us about your biggest accomplishment during your time at the college?**

Ans: I consider that every smallest thing I learned and achieved as a person throughout four years at the college has been significant enough to be considered an accomplishment. May it be as simple as doing well in engineering subjects or as huge as presenting at the ASHRAE Winter Conference, every little thing has added up to make me the person I am today, technically sound, confident, and considerate. Being a part of the college Robocon team for around 2 years, completing a semester-long internship I received through the college Placement cell, working on multiple projects, and participating in and winning several contests are a few highlighted accomplishments during the journey. I am extremely grateful for every opportunity that came my way.

Student receiving Best Outgoing Student Award

Q2. What inspired you to pursue engineering as your field of study?

Ans: As every student struggles to decide upon the career path after 10th standard, I too had the typical choices to make.

THE BEST OUTGOING STUDENT

Honestly, I was equally confused between medical and engineering. Considering my inclination towards mathematics I chose engineering as my field of study. And of course, engineers can choose to do anything and everything once they are done with engineering. So, the opportunities that lie ahead of an engineer are tremendously diverse and fulfilling.

Q3. How have your academic experiences at college prepared you for your future career?

Ans: It is well known that our college has the most intricately designed curriculum by expert professors for the development of students. Specific to mechanical engineering, the practical and real-life academic content has built me to land in any field of career I choose for myself. The most profound examples of how academic experiences at the college have helped our alumni succeed in almost all circles of life are our seniors working at esteemed positions with excellence, right from startups to the Indian Army. I am sure everything I experienced is going to push me to be the best version of myself.

Q4. What skills did you develop during your engineering degree that you feel will be most useful in your future career?

Ans: The enhancement of technical as well as soft skills has been considerable and I am grateful to the professors, seniors, and fellow students as each individual has helped me gain knowledge and confidence in the right amounts. The opportunity to work in a diverse team with students from all branches and years, working with professors on multiple projects, the guest lectures arranged, having a doorway to the corporate world for 6 months, and much more have altogether helped me understand the true meaning of teamwork, leadership, patience, effective communication alongside technical learnings.

Q5. What challenges did you face during your time at college, and how did you overcome them?

Ans: Difficult times are an integral part of any journey. The challenges I faced have been again of diverse kinds. One of the biggest challenges was staying away from home. I converted this weakness into my strength and considered my family as the biggest supporter to overcome any other difficulties. There were times when it was difficult to explain my side of the story to each and everyone around when opinions and false information spread at the fastest pace. I have committed mistakes too. I didn't understand how to react or respond and in this course

THE BEST OUTGOING STUDENT

I lost quite a few connections. But I was lucky enough to have people who stayed by my side, the real ones that knew my side of the story. On days, when I didn't even have those, I simply chose paints and a brush!

Q6. How did you balance academics and extracurricular activities during your time at the college, and what did you learn from that experience?

Ans: The amount of extracurricular and cocurricular activities held at our college as well as in general was enormous, allowing me to explore and contribute to each of those. Balancing academics and other activities was tough but I knew these 4 years won't come back. I put in every possible effort and tried utilizing 24 hours in literal sense. The overnight work done with the Robocon team in the college turning into success was a testimonial to the fact that academics can be well managed with other activities, excelling in both, not just by me but every team member!

Q7. Can you share an example of a project you worked on that you are particularly proud of?

Ans: Each project I have worked on has been equally thought-provoking and interesting. One project that I will mention, not being proud but as the one I put into maximum efforts is my internship project at Garrett Motion. Working in Operations /Production /Manufacturing was truly challenging in the beginning. I had to catch up physically, mentally as well as emotionally since it was the first corporate experience as well. Learning the core concepts of mechanical and industrial engineering, spending considerable time and effort on the shop floor, interacting with operators, managers and brainstorming to reduce the changeover time on one of the assembly lines of this turbocharger manufacturing industry, all in 6 months was a fulfilling experience. I am glad that I could complete this project in the stipulated time and cost expectation

Q8. How did you collaborate with others on group projects or assignments, and what strategies did you find most effective?

Ans: How can we skip group projects and assignments! Those have been a core memory of engineering. Collaborating with others has been a mixed experience. The deadlines, the common slots for discussions, the topics to be chosen or studied and interests never aligned. But we had to make ends meet and each one of us in the group made sure to understand, adjust and co-operate to make it easier for everyone.

THE BEST OUTGOING STUDENT

The most important thing I considered was the ease of taking up one topic by a particular individual which wasn't easy enough for the other.

Q9. How did you stay up to date with the latest developments in your field, and what resources did you rely on to do so?

Ans: Technology has been growing at the fastest pace ever in every single field. Specific to mechanical engineering, though a lot of things remain traditional and will continue to do so, there have been advancements in this and various other allied fields like industrial and automobile. Most of the developments were communicated by professors during the lectures telling us how the subjects we are learning are to be applied. I was lucky enough to have friends who believed in spreading knowledge. We spent hours sharing and discussing developments in diverse fields. In these times, resources are never ending but it also is a bane as we might struggle to choose the authentic and best one.

Q10. What advice would you give to incoming engineering students who are just starting their academic journey?

Ans: Not an advice but just a few words based on my journey which might or might not help them: The first and foremost thing is taking every opportunity that comes your way because it knocks your door only once. And for this, keep enhancing technical and non-technical skills. One learning I will definitely share is that never compromise on your physical, mental and emotional health and it is absolutely fine to take a break. Everything else can wait. And these young kids are so much smarter, I am sure they will definitely pull it off technically but don't forget to be grateful, grateful for everything. All the best for all your future plans.

- By Prachi Shinde
Final Year Mechanical

INNOVATION

Our Annual Techfest, Innovation 2024, marked another successful celebration of engineering prowess and innovative spirit. This season showcased a broad spectrum of talents across various engineering fields, focusing on the integration of theory and practice. The Mechanical Department successfully merged engineering acumen and inventive thinking through its featured events, ProtoSprint and The Engineer's Monopoly. Both competitions were significantly supported by industry-leading companies, adding a layer of professional insight and opportunity to the participants' experience.

ProtoSprint was particularly notable for its partnership with Forbes Marshall, a pioneer in energy conservation and automation solutions for the process industry. This sponsorship brought not just financial support but also industry expertise to the event's format. ProtoSprint challenged participants to design and prototype solutions that would improve accessibility for the differently abled using CREO PTC software. The competition was organized into two phases: the first was a three-hour on-the-spot designing round, and the second involved presentations of their conceptual designs and prototypes. This setup tested participants' technical skills in using advanced CAD tools and their ability to present and justify their design effectively in front of a professional audience, including two esteemed judges from Forbes Marshall - Mr. Anant Karegaonkar & Mr. Pranil Patil .

Participants and Volunteers of Protosprint

Similarly, The **Engineer's Monopoly** was sponsored by Rig Supply Store, a leading supplier of equipment to the oil and gas industry. This event creatively blended the strategic gameplay of Monopoly with real-world engineering tasks, creating a multifaceted competition that tested business acumen and engineering ingenuity. The format featured a board game round where teams acquired component cards through monetary exchanges or by completing specific engineering tasks. This was followed by an auction round for trading and bidding on essential assembly parts, and a final assembly round where teams built a physical assembly under time constraints. The support from Rig Supply Store not only provided the necessary resources for the event but also brought an industry

perspective to the challenges, making them more relevant and exciting for the participants.

These sponsorships underlined the practical implications of the competitions, bridging the gap between academic exercises and real-world industrial applications. Open to all undergraduate students from various engineering disciplines, both ProtoSprint and The Engineer's Monopoly encouraged a broad participation base, fostering teamwork, innovation, and a deeper engagement with fundamental and advanced engineering principles.

Through such dynamic and well-supported events, Innovation 2024 continues to be a vital part of the academic and professional development of future engineers, encouraging them to explore and excel in their respective fields.

Volunteers of Engineer's Monopoly

- By Trupti Jumbad
T.Y. Mechanical

FACT TIME!

Additive manufacturing, also known as 3D printing, has transformed the way mechanical engineers prototype and manufacture components. This technology allows for rapid prototyping, complex geometries, and customization, leading to innovative designs and reduced production costs.

NATIONAL SERVIVE SCHEME

Cleanliness Drive

NATIONAL SERVICE SCHEME

The National Service Scheme (NSS) is a massive Indian government effort centred on public service administered by the Ministry of Youth Affairs and Sports at https://nss.gov.in/. Goal: To encourage character development in student youth through voluntary community service.

MERI MAATI MERA DESH

On the occasion of India's Amritmahotsav, the National Service Scheme (NSS) volunteers of Cummins College, Pune participated in Meri Maati Mera Desh Campaign as called by Hon'ble Prime Minister Narendra Modi to pay tribute to the martyrs who sacrificed for freedom.

CLEANLINESS DRIVE

Our college MKSSS's Cummins College of womens Engineering NSS student members enthusiastically participated in a cleanliness drive near Warje Bridge in Karve Nagar, Pune on 19 January, 2023.

E-Waste Collection Drive

E WASTE

The NSS volunteers of MKSSS's Cummins College of Engineering for Women, Pune actively participated in a city-wide 'E-Waste, Plastic Waste Collection Drive' held on 05th November 2023.

BLOOD DONATION CAMP

The blood donation camp at MKSSS's Cummins College Of Engineering, Pune , organized by NSS CCOEW on 5th March 2024, proved to be a remarkable success in addressing the local blood supply shortage.

NATIONAL SERVIVE SCHEME

Faculty Advisor- Prof. (Dr.) Shridhar Kedar (Mechanical Engineering Department)

Name	Position	Year
Pradnya Powar	Member	T.Y. Mechanical
Srushtee Gaikwad	Member	T.Y. Mechanical
Geeta Sutar	Member	S.Y. Mechanical
Purva Kulkarni	Member	S.Y. Mechanical
Ananya Bhusare	Member	S.Y. Mechanical

- By Shravani Kumbhar
T.Y. Mechanical

FACT TIME!

Mechanical engineers play a significant role in the development of renewable energy technologies such as wind turbines, solar panels, and hydroelectric generators, as well as in the design of more efficient fossil fuel-based power plants.

GANDHAAR

Winners of Miss Cummins & Best Personality

Unveiling the Magnificence: Gandhaar 2024 - A Journey 'Around the World in 96 Hours'

In the vibrant month of January, our college proudly hosted the esteemed cultural festival "Gandhaar," centered around the captivating theme "Around the World in 96 Hours." This enthralling event featured an array of stunning decorations, electrifying performances, and mouthwatering delicious treats. The collective experience left an enduring impression, underscoring the festival's significance as a hallmark of unforgettable moments in collegiate life.

As the festivities unfolded over the course of 96 unforgettable hours, students, faculty, and guests alike were swept away on a journey of cultural exploration and celebration.

Gandhaar 2024 proved to be an unforgettable celebration of global diversity and camaraderie.

Pre-Gandhaar

Students enjoyed a cozy "Slumber Party" in pajamas, with playful campus decorations and oversized t-shirts. "Cinefesta" offered timeless Bollywood screenings, adding entertainment and nostalgia to the evening.Day 2 featured a 'Chettinad Chic' theme, with students embracing South Indian culture elegantly.A thrilling flash mob showcased impeccable dance moves, adding electrifying energy to the festivities.

Winners of BTech Fashion Show

Day 3 saw a "Bronco Belle" theme, with students embracing cowgirl attire exuding confidence.An energetic performance by students and faculty from Dhol Pathak added charm and energy to the event.Day 4 featured a "Bagless Corporate" theme, challenging students to exude professionalism without bags.

GANDHAAR

Gandhaar Day 1 : Intra College Dance

The Sanstha ground buzzed with "Jamboree" games, evoking childhood joy with beloved classics.

Themes of Gandhaar 2024

On Gandhaar Day -1-The "Luxe Showdown" theme adorned the campus as a showcase of global fashion capitals. The grand

Winner of Department Antakshari

Inauguration Ceremony kicked off the elegant journey with traditional dances and melodious student performances, creating an unforgettable experience.On the exhilarating Day-2 of Gandhaar, the theme was "Era's of Elegance," a tribute to the finest fashion, styles, sounds, and ambiance from the bygone decades of the 50s, 60s, 70s, and 80s, celebrating the 'retro' kind of fashion. On Day 3 of Gandhaar, the theme "Haute Fashion" took center stage, transforming the atmosphere into a red carpet spectacle unlike any other. Students showcased their creative prowess by adorning themselves in imaginative costumes

Classical Dance First Runner Up

inspired by the iconic Met Gala.Day 4 celebrated "Traditional Treasures," highlighting the richness of ethnic attire on campus. Students adorned in finest traditional garments showcased opulent splendor and vibrant hues, radiating beauty and grace.During Gandhaar-2024's 'Aandaaz-e-Adaa,' the Mechanical Department amazed with their dance prowess.

GANDHAAR

Faculty members lit up the stage with energetic moves, captivating the audience and leaving a lasting impression with their skillful performance. Attendees enjoyed the spectacle, reveling in the infectious energy displayed by the talented dancers.

Mechanical Department students excelled in Cummins Got Talent, Intra-College Dance, Class Drama etc showcasing versatility and creativity. Their diverse participation highlighted exceptional talent and prowess in various events. The "Around the World in 96 Hours" took us on an unforgettable journey, bringing together the entire college community in unity and triumph. Huge applause to the Student Panel-2024 for their outstanding efforts in planning a week filled with excitement and anticipation, ensuring the college fest surpassed all expectations. Without a doubt, this week, especially the thrilling 96-hour event, stands out as a highlight of 2024, cherished by everyone involved!

This year, the central coordinator for Gandhaar from the Mechanical Department was Prof. (Dr.) Avinash Shinde, while the Department coordinator was Prof. Poonam Bhore.

Gandhaar Day 2 : Faculty Performance

Gandhaar experience shared by Avinash Shinde Sir -

This was my first experience in acting as a main coordinator for Gandhaar and this gave me a really good experience. The collaborative efforts of students, faculty mentors, and event coordinators were evident in the seamless execution of the entire event.

The event concluded with the Valedictory Ceremony on 3rd February 2024 in the presence of Shri Jayantji Inamdar, Chairman, College Development Committee, Cummins College of Engineering for Women, Pune.

- By Samruddhi Vaikar
S.Y. Mechanical

PLACEMENT RECORD 2023-24

Sr No	Name	Company
1	Maithili Deshpande	Schneider Electric
2	Sonal Pohankar	Schneider Electric
3	Anuja Jadhav	Schneider Electric
4	Suprada Mahadik	Wabtec
5	Dnyaneshwari Bangar	Caterpillar
6	Ruchita Kadam	Caterpillar
7	Pranjal Chouhan	Caterpillar
8	Sai Phate	Caterpillar
9	Sayali Chakre	Caterpillar
10	Amruta Puranik	Caterpillar
11	Krishna Chavan	Caterpillar
12	Priya Shah	Caterpillar
13	Gargi Bhonde	LAM Research
14	Shruti Chavan	LAM Research
15	Amita Jambhale	LAM Research
16	Avani Pande	Garrett Motion
17	Akanksha Chodankar	Garrett Motion
18	Pournima Pawar	SLB OneSubsea
19	Akanksha Pahurkar	SLB OneSubsea
20	Sharvari Jadhav	SLB OneSubsea

PLACEMENT RECORD 2023-24

Sr No	Name	Company
21	Mitali Diwekar	Eaton
22	Sakshi Tonde	Eaton
23	Gayatri Jadhav	Eaton
24	Aabha Kulkarni	Eaton
25	Shreya Jadhav	Eaton
26	Swaralee Dabke	Eaton
27	Ishika Ghosh	Air Products
28	Poorva Ghanekar	Air Products
29	Ankita Khalate	Air Products
30	Rakshita Dhotre	Air Products
31	Gayatri Bhandare	Alstom
32	Vrunda Kulkarni	Hero Motocorp
33	Riddhi Pendse	Hero Motocorp
34	Janhvi Deshmukh	Hero Motocorp
35	Sakshi Joshi	Hero Motocorp
36	Radhika Pandit	Hero Motocorp
37	Vaishavi Shirsath	PWC
38	Vaikhari Kharul	Atlas Copco
39	Akanksha Panhale	Atlas Copco
40	Siddhi Sonnekar	Atlas Copco

PLACEMENT RECORD 2023-24

Sr No	Name	Company
41	Mamta Jaiswal	Daimler
42	Pooja Thorat	Daimler
43	Shamal Jadhav	Daimler
44	Teertha Kulkarni	Aditya Birla
45	Aishwarya Ambarkar	Aditya Birla
46	Tanvi Sagaonkar	Aditya Birla
47	Shravani Mahadik	Aditya Birla
48	Snehal Gholap	SLB OneSubsea
49	Shifa Shaikh	SLB OneSubsea
50	Aboli Pakhale	SLB OneSubsea
51	Komal Chourpagar	Bridgestone
52	Prachi Shinde	Boeing
53	Devika Surve	Boeing
54	Janhavi Mane	Forbes Marshall
55	Harshada Khebude	TASL
56	Ankita Gamne	Greaves cotton
56	Rushika Diwane	GE Vernova
57	Samruddhi Bari	Garrett Motion
57	Shweta Thorat	Siemens
58	Shweta Jha	Garrett Motion

INTERNSHIP RECORD 2023-24

Sr No	Name	Company
1	Palavi Gaikwad	Garett Motion
2	Apurva Bhagwat	Garett Motion
3	Indraja Nene	Garett Motion
4	Sweta Vimal	Garett Motion
5	Manali Yadav	Garett Motion
6	Chaitrali Kulkarni	Garett Motion
7	Tanvi Kamat	Garett Motion
8	Mughda Deshmukh	Caterpillar
9	Indrayani Nayak	Caterpillar
10	Sanika Kulkarni	Caterpillar
11	Manasi Chaudhari	Caterpillar
12	Aayushi Jagtap	Caterpillar
13	Saloni Gaikwad	Caterpillar
14	Tanaya Naik	Caterpillar
15	Aastha shah	General Mills
16	Surabhi sangale	Boeing
17	Sunidhi Gaikwad	Boeing
18	Shravani Gogawale	Boeing
19	Mital Paratane	Boeing
20	Nayyara Sayyad	Boeing
21	Rutuja Mane	Boeing
22	Tanvee kulkarni	Boeing

INTERNSHIP RECORD 2023-24

Sr No	Name	Company
23	Vaishnavi Patil	Caterpillar
24	Urvi Deokar	Eaton
25	Trupti Jumbad	Eaton
26	Janhavi Bhopale	SLB Onesubsea
27	Geeta Kadam	SLB Onesubsea
28	Neha Patel	SLB Onesubsea
29	Vaibhavi Magdum	SLB Onesubsea
30	Pooja patil	SLB Onesubsea
31	Pratiksha Diwate	SLB Onesubsea
32	Kirti Alai	SLB Onesubsea
33	Rucha Shende	SLB Onesubsea
34	Riya Shrawane	SLB Onesubsea
35	Sakshi Patil	SLB Onesubsea
36	Madhura Bartakke	Renault & Nissan Tech
37	Kshitija Ghorpade	Renault & Nissan Tech
38	Ashwini Salunkhe	Renault & Nissan Tech
39	Srushtee Gaikwad	Renault & Nissan Tech
40	Sonam Khatal	ITC
41	Vaishnavi Dhotre	Cummins
42	Arya Vinayak Deo	Cummins
43	Chaitali Kailas Kute	Cummins
44	Sakshi Ninale	Cummins

STUDENTS ACHIEVEMENTS ACADEMICS (A.Y. 2023-24)

SR NO	NAME	A. Y	ACHIEVEMENT	DESCRIPTION	FIELD
1.	Sanskruti Inamdar	SY	Intra college dahi handi	We were the participants of the dahi handi competition representing the mechanical department and we won the first prize into the same.	Extracu rricular
2.	Shreya Bhosale	SY	Damini	We participated in kho kho which was held this year in Damini, where we secured 2nd place.	Sports
3.	Chaitali Kute	TY	Ashrae pune chapter paper presentation competition	I got 1st prize in the paper presentation Competition.Innovative MRI Cooling Solutions: Advancing HVAC&R Engineering Expertise.	Tech-nical

STUDENTS ACHIEVEMENTS ACADEMICS (A.Y. 2023-24)

SR NO	NAME	A. Y	ACHIEVEMENT	DESCRIPTION	FIELD
4.	Madhura Bartakke	SY	BAJA SAE INDIA : TEAM ZENITH	SAE BAJA INDIA 2024: Team leader, driver, multi-subsystem specialist, racer, finance and sales contributor.	Technical
5.	Manasi Chaudhari	TY			
6.	Tanaya Naik	TY			
7.	Sharvari Ghorpade	TY			
8.	Aayushi Jagtap	TY			
9.	Indrayani Naik	TY			

STUDENTS ACHIEVEMENTS CULTURAL ACTIVITIES (A.Y. 2023-24)

SR NO	EVENT	THEME	PARTICIPANTS
1.	‘Vogue Runway’ -BTech Fashion Show	Adaptation of the Greatest Showman	Janhavi Patil, Divyanshi Alok, Sayali Chakre, gayatri Jadhav, Prachi Shinde, Aboli Pakhale, Pranjal Chouhan, Vaikhari Kharul, Aabha Kulkarni, Maithili Deshpande, Sonal Pohankar, Tanvi Sagaonkar, Rutuja Bobade
2.	‘Kaun Banega Surpati’- Department Aktakshari	-	Poorva Ghanekar , Sakshi Patil , Vedika Nalla , and Shreya
3.	‘Masked Masterpieces' - Face Painting Competition	Save Nature	Sai Phate and SwaraleeDabke
4.	‘Tattoo Craft Rivalry’ -Tattoo Painting Competetion	Travel	Swaralee Dabke and Aboli Pakhale
5.	'SoloScript Showdown' - Monologue Competition	-	Aakanksha Panhale
6.	'SoloScript Showdown' - Monologue Competition	-	Amruta Puranik

STUDENTS ACHIEVEMENTS CULTURAL ACTIVITY (A.Y. 2023-24)

SR. NO.	Event	Theme	Participants
7.	'Culinary Artistry' - Food Decoration	Vacation	Amruta Puranik, Swaralee Dabke, Devika Surve, and Sayali Chakre
8.	'Miss Cummins'- Beauty Pageant	-	Apurva Bhagwat
	'Miss Cummins'- Best Personality	-	Tanvi Sagaonkar
9.	'Nritya Sangam' - Classical Dance Competition	-	Aabha Kulkarni, Poorva Ghanekar, and Swaralee Dabke
10.	'Nritya Sangam'- Classical Dance Competition	-	Devashree Harkare
11	'Clue Quest' - Treasure Hunt	-	Vaishnavi Pawar and Saloni Gaikwad
12.	'Mini Movie Mania' - Short Film Making Competition	-	Aditi Sant

FY DODGEBALL TEAM

FY THROWBALL TEAM

TY THROWBALL TEAM

SY DODGEBALL TEAM

SY THROWBALL TEAM

PANEL MEMBERS

MECHANICAL DEPARTMENT PANEL MEMBERS 2023-24

NAME	POSITION	YEAR
Vaidehi Gauda	Branch Representative	S.Y.Mechanical
Janhavi Bhopale	Operations Secretory	T.Y.Mechanical
Tisha Bais	T&P Cell Representative	T.Y.Mechanical
Ankita Gamne	Hindi Editor	Final Year Mechanical
Sweta Vimal	Asst.Technical Secretory	T.Y.Mechanical
Isha Mahajan	Asst. Library Representative	S.Y.Mechanical

RANK LIST

FINAL YEAR 2022-23

RANK	NAME	CGPA
1	Sakshi Kose	9.31
2	Shivani Pandit	9.13
3	Anushri Gujrathi	9.11
4	Rohini Sangle	9.07
5	Prajakta Joshi	9.04
6	Sharvari Kulkarni	9.02
7	Simran Khanna	9.01
8	Mrudul Chaudhari	8.99
9	Akshata Vaditake	8.95
	Rugweda Nalawade	
10	Anvi Shah	8.91

RANK LIST

THIRD YEAR 2022-23

RANK	NAME	CGPA
1	Amruta Puranik	9.22
2	Vaikhari Kharul	9.01
3	Maithili Deshpande	8.85
4	Gargi Bhonde	8.73
5	Amita Jambhale	8.68
6	Akanksha Chodankar	8.63
7	Suprada Mahadik	8.57
8	Ruchita Kadam	8.51
9	Krishna Chavan	8.33
10	Sai Phate	8.32

RANK LIST

SECOND YEAR 2022-23

RANK	NAME	CGPA
1	Surabhi Sangale	9.23
2	Tanaya Naik	8.7
3	Sunidhi Gaikwad	8.48
4	Shravani Gogawale	8.41
5	Chaitrali Kulkarni	8.37
6	Indrayani Naik	8.28
7	Aayushi Jagtap	8.24
8	Manali Yadav	8.2
9	Sanika Kulkarni	8.18
	Mugdha Deshmukh	
10	Pradnya Powar	8.12

SUBJECT-WISE TOPPERS

SEM I : FINAL YEAR 2023-24

NAME	SUBJECT	MARKS
Rugveda Nalawade	CAD/CAM and Automation	82
Rohini Sangale		82
Rugveda Nalawade	Transmission System Design	89
Nutan Lagad	Economics for Engineers	97
Khushboo Agrawal	Advanced Entrepreneurship Development	97
Shireen Inamdar		97
Vijith Shreya		97

SUBJECT-WISE TOPPERS

SEM I : THIRD YEAR 2023-24

NAME	SUBJECT	MARKS
Ulhas Vaikhari	Computer Aided Engineering	87
Amruta Puranik	Heat Transfer	81
Ulhas Vaikhari	Power Train Design	86
Amita Jambhale	Industrial Inspection & Quality Control	86
Mamta Jaiswal	Numerical Methods	95
Ulhas Vaikhari		

SUBJECT-WISE TOPPERS

SEM I : SECOND YEAR 2023-24

NAME	SUBJECT	MARKS
Tanvee Kulkarni	Calculus & Statics	84
Surabhi Sangale	Engineering Metallurgy	83
Surabhi Sangale	Engineering Thermodynamics	91
Surabhi Sangale	Machining and Machine Tool Operations	83
Surabhi Sangale	Strength of Materials	93
Chaitrali Kulkarni	Universal Human Values-II	90

SUBJECT-WISE TOPPERS

SEM II: FINAL YEAR 2023-24

NAME	SUBJECT	MARKS
Sakshi Koshe	Turbo Machines	95
Sharvari Kulkarni	Mechanical Vibrations	86
Mrudul Chaudhari	Advanced Manufacturing Processes	90

SUBJECT-WISE TOPPERS

SEM II: THIRD YEAR 2023-24

NAME	SUBJECT	MARKS
Amruta Puranik	Robotics Control Systems	89
Ulhas Vaikhari	Applied Thermodynamics	92
Sai Phate	System Dynamics Modeling & Simulation	76
Amita Jambhale	Turbo Machines	92
Ulhas Vaikhari	Industrial Engineering and Operation Research	90

SUBJECT-WISE TOPPERS

SEM II: SECOND YEAR 2023-24

NAME	SUBJECT	MARKS
Surabhi Sangale	Elements of Electrical & Electronics Engineering	94
Vaishnavi Dhotrre	Analysis & Synthesis of Mechanisms	90
Sunidhi Gaikwad	Fluid Mechanics	89
Aayushi Jagtap		
Surabhi Sangale		
Surabhi Sangale	Metal Casting Forming & Joining Process	83
Surabhi Sangale	Machine Design	89

FACULTY ACHIEVEMENTS

Research Funds					
1	Rujuta Agavekar	Design and development of a test bench to evaluate the performance of various energy recovery devices	ASHRAE (American Society of Heating Refrigerating and Air Conditioning Engineers)	2023-2024	Rs. 4,08,371 in August 2023

Publications

Sr No	Author Name	Paper Title	Name of Journal	Volume, Issue No., (Month/ Yr.) & Page no.
1	Prashant Anerao, Atul Kulkarni, Yashwant Munde, Avinash Shinde, Oisik Das	Biochar reinforced PLA composite for fused deposition modelling (FDM): A parametric study on mechanical performance	Composites Part C: Open Access	vol. 12, 100406, Oct. 2023
2	S.A.Kedar, G.V.More, D.S.Watvisave, H.M.Shinde	A critical review on the various techniques for thethermal performance improvement of solar airheaters.	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Vol.45 , No.04 , 11819-11852
3	Ravikant K. Nanwatkar, Deepak S. Watvisave	Electrical and Thermal Investigations of a Hybrid Energy Storage System	Journal of Research Administartion	Vol. 5 No. 2 (2023)

FACULTY ACHIEVEMENTS

Sr No	Author Name	Paper Title	Name of Journal	Volume, Issue No., (Month/Yr.) & Page no.
4	Ravikant K. Nanwatkar, Deepak S. Watvisave	Modeling, Simulation and Experimental Investigations for Hybridization of Lithium-Ion Battery and Supercapacitor in Electric Vehicle Applications	Journal of Propulsion Technology	Vol. 44 No. 4 (2023)
5	Prerna Mishra, Nallan Chakravartula Santhi Srinivas and Vakil Singh	A comparative study of Ratcheting fatigue behavior of Modified 9Cr-1Mo steel and Inconel 617 alloy at homologous temperature of 0.42	Steel Research International	Jan 2024, 2300281
6	Prerna Mishra, N.C. Santhi Srinivas and Vakil Singh	Pre-ratcheted tensile properties of Nickel base alloy IN-617 at RT	Transaction of Indian Institute of Metals	12/1/2023, 1-9
7	Prashant Anerao, Atul Kulkarni, Yashwant Munde	A review on exploration of the mechanical characteristics of 3D-printed biocomposites fabricated by fused deposition modelling (FDM)	Rapid Prototyping Journal	Dec 2023

FACULTY ACHIEVEMENTS

Sr No	Author Name	Paper Title	Name of Journal	Volume, Issue No., (Month/Yr.) & Page no.
8	Yashwant Munde, Abhilasha Panigrahi, Gautam Chandekar, Avinash Shinde, Irulappasamy Siva	Identifying the Influence of Stacking Sequence on Mechanical and Vibration Properties of Bamboo/Glass-Epoxy Composites	Macromolecular Symposia	Dec 2023 Volume 412, Issue 1, Pages 2200170
9	Balasaheb Takle, Yashwant Munde, Avinash Shinde, Vishal Deore, Siva Irulappasamy	Sliding Wear Behavior of Pineapple Leaf/Glass Fiber Reinforced Polyester Composites	Macromolecular Symposia	Dec 2023 Volume 412, Issue 1, Pages 2200161
10	Harish M. Shinde, Anand K. Bewoor et al.	Engine oil quality deterioration estimation using an integrated sensory system	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	Dec 2023 Volume 237, Issue 6, Pages 2257-2267

FACULTY ACHIEVEMENTS

Academic Year of Publications: 2023-24 – Book/Book Chapter				
1	Prerna Mishra	Ratcheting Fatigue Behaviour of Advanced Structural Materials	Proceedings of the International Conference on Metallurgical Engineering and Centenary Celebration	October 2023

Academic Year of Publications: 2023-24 – Conferences Paper				
Sr. No.	**Author Name**	**Paper Title**	**Name of Conference**	**Volume, Issue No., (Month/Yr.) & Page no.**
1	Yashwant Munde, Avinash Shinde, Prashant Anerao, I Siva	Identifying the Effect of Stacking Sequence on Water Absorption, Mechanical and Fracture Properties of Flax/Glass Hybrid Composites	International Symposium on Lightweight and Sustainable Polymeric Materials	Oct 2023pp 249–264
2	Abhijeet Pidge, Aniket Salve, Ashok Mache, Aparna Kulkarni, Yashwant Munde	Effect on Vibration Characteristics of Fiber Metal Laminates Reinforced with Jute/glass Fibers	Biennial International Conference on Future Learning Aspects of Mechanical Engineering, Advances in Engineering Materials, Lecture Notes in Mechanical Engineering	Oct 2023pp 105-116

FACULTY ACHIEVEMENTS

Sr. No.	Author Name	Paper Title	Name of Conference	Volume, Issue No., (Month/Yr.) & Page no.
3	AK Bewoor, HM Shinde, AA Bhosale, PP Patil	Ergonomic analysis and improvement for ease of work of post engine testing activities by using RULA and REBA techniques	AIP Conference Proceedings	Volume 2800, Issue 1, Sept. 2023
4	AK Bewoor, Nitin Patil, S Kaliappan, Pravin P Patil, Raja Raju, P Ramanathan, VA Kulkarni	Sustainability assessment of tungsten inert gas welding process using grey relational analysis	AIP Conference Proceedings	Volume 2800, Issue 1, Sept. 2023
5	M Dhanvijay, VA Kulkarni, NR Patil, AK Bewoor	Development of PLC-based system for lift gate slam platform	AIP Conference Proceedings	Volume 2800, Issue 1, Sept. 2023
6	J Heeraman, LA Bewoor, AK Bewoor, S Kaliappan, PP Patil, S Socrates	Applications of firefly algorithm in hydrology	International Conference on Materials for Emerging Technologies-2021(ICMET-21)	Volume 2800, Issue 1, Sept. 2023
7	Vishwanath Mali, Ajit Bhosale	Effect of Foam Thickness on Two-Wheeler Seat in view of Seat Height Adjustment and Vibration Damping	16th International Conference Interdisciplinarity in Engineering (INTER-ENG 2023)	Oct 2023

FACULTY ACHIEVEMENTS

Consultancy Services: AY 2023-24					
Sr. No.	**Consultancy assignment undertaken**	**Coordinator**	**Revenue generated (Rs.)**	**Duration /Date**	**Consulting Agency**
1	Modal Analysis of Solar Structure	Dr. Gautam Chandekar	1,00,000/-	5 Months/November 2023	Scorpius Trackers Pvt. Ltd.
2	CFD Simulation Strategies for Large Eddy Simulations	Parag Chaware	36000	6 Months / Sept 2023	Tridiagonal Solutions Pvt Ltd.

Mechanical Engineering Department Faculty

Thank You

Mechanical Engineering Department Students Achievements