

Volume 5, Issue 1, January 2025

Official Newsletter Department of Mechanical Engineering

अविन्या= वृद्धिं

Insight to innovative growth

Editor-in-chief

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Ms. Surabhi Lata

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Vasu Kumar

Piyush

Prisha Sagar

Maharaja Agrasen Institute of Technology

Department of Mechanical Engineering



VISION

To be a global leader in Mechanical Engineering education, research & innovation with ethics and values.

MISSION

M1: To deliver industry relevant and skill oriented education in Mechanical Engineering, encompassing production, design, thermal, and emerging areas to address diverse global challenges.

M2: To foster ethical values with professional skills for the benefit of industry and society.

M3: To enhance the teaching-learning process through modern pedagogical tools.

M4: To promote research, innovation and entrepreneurship using sustainable technologies and continuous learning.

M5: To strengthen engagement with alumni, industry and other stakeholders for collaborative growth and capacity building.

PROGRAM EDUCATIONAL OBJECTIVES

The objectives of the department of Mechanical Engineering are to produce graduates who will have:

PEO1: Employability, entrepreneurship, leadership skills, and the ability to pursue higher education for the enhancement of knowledge.

PEO2: Ability to lead through research and innovation in the field of Mechanical Engineering.

PEO3: Engineering competence with good communication skills, professionalism, moral values as well as foundation for lifelong learning.

PEO4: Technical capabilities pertinent to Mechanical and allied engineering and to provide innovative and sustainable solutions for industrial and societal problems.

WORD FROM THE HEAD

Dear Avinya-Vrddhim Readers,

Greetings to the esteemed members of our Mechanical Engineering community! It is with great pleasure and enthusiasm that I address you through the pages of our biannual newsletter, providing a snapshot of the latest developments and accomplishments within our department.

In the fast-paced world of mechanical engineering, staying informed is key to staying ahead. This newsletter serves as a bridge between our department and its stakeholders, offering insights into the noteworthy activities, achievements, and innovations that have unfolded over the past months.

As we navigate the ever-evolving landscape of mechanical engineering, it is heartening to witness the dedication and passion displayed by our faculty, researchers, students, and support staff. Together, we have achieved significant milestones and made strides in research, education, and industry collaboration.

This edition showcases a diverse range of articles, spotlights on research projects, and highlights of our students' accomplishments. From groundbreaking research initiatives to collaborative endeavours with industry partners, the content reflects the depth and breadth of our department's contributions to the field.

I extend my heartfelt appreciation to the contributors, editorial team, and everyone involved in the creation of this newsletter. Your commitment to excellence has made this publication a valuable resource for our community, fostering a sense of unity and shared purpose.

As we look to the future, let us continue to embrace innovation, collaboration, and a commitment to excellence. I encourage each member of our community to actively participate, contribute, and engage in the ongoing dialogue that shapes the trajectory of our department.

Thank you for your continued support, and I eagerly anticipate witnessing the continued success and growth of our Mechanical Engineering Department.

Warm regards,

Dr. Vaibhav Jain

Head, Department of Mechanical Engineering



List of Faculty

1. Dr. Vaibhav Jain
2. Prof. V.N. Mathur
3. Dr. Anil K. Dahiya
4. Mr. Anil Gupta
5. Dr. Kanchan Mudgil
6. Dr. Sidharth
7. Dr. Vipin Kr. Sharma
8. Dr. Naveen Solanki
9. Mr. Deshdeep Gambhir
10. Ms. Surabhi Lata
11. Dr. Sumit Joshi
12. Dr. Piu Jain
13. Mr. Rakesh C. Saini
14. Dr. Sachin Gupta
15. Ms. Surbhi Upadhyay

Faculty pursuing PhD
Ms. Surabhi Lata

Department Intake:

60

GGSIPU RESULTS (2024-2025)

4th Year Students Result till 6th SEM (2023-2024)

S. No.	Enrollment No.	Student Name	GPA %
1	01914811121	Saurabh Kumar	9.560
2	35214811121	Priyansh Dagur	9.460
3	01414811121	Rohit Sharma	9.420
4	75114811121	Anmeet Singh	9.420
5	00714811121	Ishansh Gulati	9.180
6	03414811121	Sharmishta Menon	9.044
7	01514811121	Shashank Joshi	8.989
8	04214811121	Viral Pandey	8.950
9	00514808222	Ashish Raj	8.931
10	00514811121	Ansh Gupta	8.900

3rd Year Students Result till 4th SEM (2023-2024)

S. No.	Enrollment No.	Student Name	GPA %
1	01714811122	B Jayant	8.844
2	01414811122	Prabhat Shankar Dubey	8.750
3	00114811122	Mayank Jately	8.539
4	00514811122	Gokul Chawla	8.523
5	01314808223	Md Taufique Umar	8.436
6	00214811122	Mayank Agarwal	8.266
7	35514811122	Raghav	8.240
8	01214808223	Keshav Nandan	8.205

2nd Year Students Result till 2nd SEM (2023-2024)

S. No.	Enrollment No.	Student Name	GPA %
1	01314811123	Arnav Gupta	9.100
2	03214811123	Priyanshu Bhuria	8.920
3	01514811123	Karan Diwan	8.880
4	03414811123	Manan Lamba	8.800
5	03514811123	Vedant Roy	8.680
6	01814811123	Tanmay Chadha	8.660
7	01114811123	Kush Negi	8.506
8	00514811123	Kunwar Anmol Singh	8.400

About the Societies

ASHRAE, Student Chapter MAIT

Membership Number: 8370536

The ASHRAE Student Chapter MAIT was started in Feb 2019. Since its inception the ASHRAE Student Chapter MAIT has witnessed exponential growth. The society was started with 15 members under the guidance of Dr. Vaibhav Jain and its strength has been gradually increasing. The students of this chapter have shown extreme compassion and exuberance in discharging all the tasks taken up by them with utmost dedication and hard work. The Chapter has grown to be stronger, compassionate, tech savvy and slated to give the better engineers of tomorrow. They are continued to indulge in new, green and sustainable technological research and generated more practical experience in our society and with that work smart towards developing new models in the field of HVAC&R. Even, the COVID-19 couldn't stop them from doing their best and making the best use of the time at home and keep on expanding the chapter and its activities. ASHRAE is a world-renowned organization and they only want to uphold that name by constantly trying hard to be better than before.

Dr. Vaibhav Jain

3D SPACE: Additive Manufacturing Society of MAIT

3D Space: Additive Manufacturing Society of MAIT, founded in 2019 by 20 visionary students, is dedicated to advancing the field of additive manufacturing. The society aims to transform ideas into tangible solutions, fostering innovation through hands-on experience with 3D printing technology. One of its key focuses is enhancing students' CAD skills, enabling them to design complex models and bring their ideas to life in 3D form. It emphasizes on mastering Design for Additive Manufacturing (DFAM), ensuring members understand the nuances of designing specifically for 3D printing. The society is also involved in designing and building fully functional 3D printers and producing engineering-grade components that improve product functionality. Beyond technical skills, 3D Space encourages collaboration and idea sharing, promoting interdisciplinary projects and offering 3D printing services to other societies. The society stays at the cutting edge of the industry by engaging in research, organizing conferences, and participating in competitions. With a commitment to pushing boundaries and advancing knowledge, 3D Space plays a pivotal role in the MAIT community, empowering students to innovate and excel in the rapidly growing field of additive manufacturing.

Ms. Surabhi Lata

Alumni Talk with Mr. Gaurav Sharma, ISRO

MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL AND AUTOMATION ENGINEERING &
DEPARTMENT OF MECHANICAL ENGINEERING

ORGANIZING
AN ONLINE WEBINAR
JOURNEY OF MR. GAURAV SHARMA, SCIENTIST-F, ISRO & ALUMNI (MAE DEPTT, MAIT) FROM MAIT TO CHANDRAYAAN-3

DATE
SATURDAY
31 AUGUST, 2024
11 AM ONWARDS

JOIN ZOOM MEETING:
<https://us06web.zoom.us/j/82840279381>
PWH:5WAB8DQV7MDCCKLJ778E8HCO0K8J1
MEETING ID: 855 8402 7935
PASSCODE: MAIT

MR. GAURAV SHARMA
SCIENTIST-F, ISRO

GAURAV SHARMA IS A SCIENTIST-F AT THE LIQUID PROPELLSION SYSTEM CENTRE (LPSC) OF ISRO. HE EARNED HIS B.TECH IN MECHANICAL & AUTOMATION ENGINEERING FROM MAIT IN 2007 AND JOINED VIKRAM SARABHAI SPACE CENTRE AS A SCIENTIST-C. AFTER TRAINING ACROSS ISRO CENTERS, HE WAS POSTED AT LPSC, TRIVANDRUM. HE COMPLETED HIS MASTERS IN AEROSPACE ENGINEERING FROM IISc BANGALORE (2012-14). WITH 17 YEARS OF EXPERIENCE, HE SPECIALIZES IN THE DESIGN AND DEVELOPMENT OF FLUID CONTROL COMPONENTS FOR ISRO'S LAUNCH VEHICLES, INCLUDING PSLV, GSLV, AND LVM-3, AND HAS CONTRIBUTED TO KEY MISSIONS LIKE MARS ORBITER, ADITYA L-1, AND CHANDRAYAAN-2 & 3. HE RECEIVED THE 'YOUNG SCIENTIST OF THE YEAR' AWARD IN 2017 AND IS CURRENTLY DEPUTY DIVISION HEAD AT LPSC, LEADING A DESIGN TEAM AND SERVING AS DEPUTY PROJECT DIRECTOR FOR NEW GENERATION LAUNCH VEHICLES AND PROJECT MANAGER FOR THE FUEL CELL POWER SYSTEM PROJECT.

REGISTRATION FORM:
<https://forms.gle/QZVNU0SKKQKQ2X596>

Received Young Scientist of the year Award for 2017 !!!!

In photo:
Dr. K Sivan, Then Chairman ISRO
K Kasturirangan, Previous ISRO chairman & Recipient of Padma AWARDS

Department of Mechanical Engineering organized an inspiring webinar featuring Mr. Gaurav Sharma, a distinguished alumnus and Scientist-F at ISRO. A key contributor to the Chandrayaan-3 mission, Mr. Sharma shared his remarkable journey, career challenges, and valuable insights, leaving the audience motivated and enlightened.

A 2007 graduate in Mechanical and Automation Engineering, Mr. Sharma has contributed to landmark missions such as Chandrayaan-2 and 3, Aditya L-1, and the Mars Orbiter Mission. With 17 years of experience at ISRO, he has earned accolades, including the '*Young Scientist of the Year*' award in 2017. His work on critical systems like the cryogenic engine for GSLV MKII highlights the importance of resilience and innovation in space research.

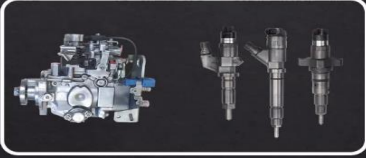
The webinar celebrated Mr. Sharma's extraordinary achievements, inspiring students to strive for excellence while reaffirming the department's commitment to nurturing talent and fostering strong connections with its accomplished alumni.

A Glimpse of my contribution....

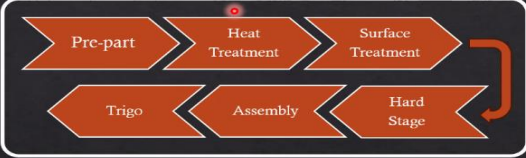
Alumni Talk: Current Practices at Bosch Limited


Current Practices of MFH Department in Bosch Limited, Jaipur

What we make at Bosch Limited, Jaipur



How MFH does it





My previous role/responsibilities at Bosch

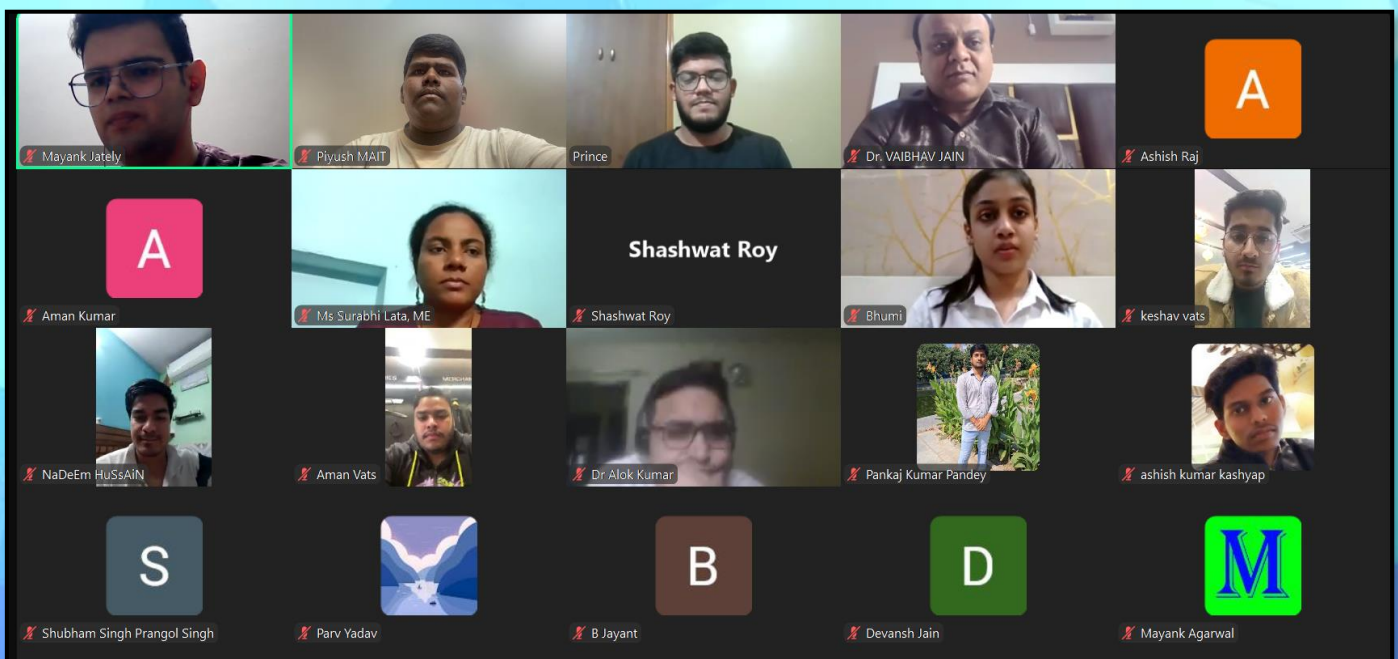
- Handled MFH PPC dept.
- Created Levelled plan for all the value stream in MFH
- Monitoring the released production plan
- Catering to customer criticality
- Managing DLRs and Levelling meetings
- Identifying and eliminating repetitive tasks

My projects at Bosch

- SETS clarity RPA
- Blocked inventory BOT and RPA
- Shims Store MIS
- Digital Logbook: Rework and Scrap
- MFV Dataframe
- Bosch Jaipur Bill of Materials

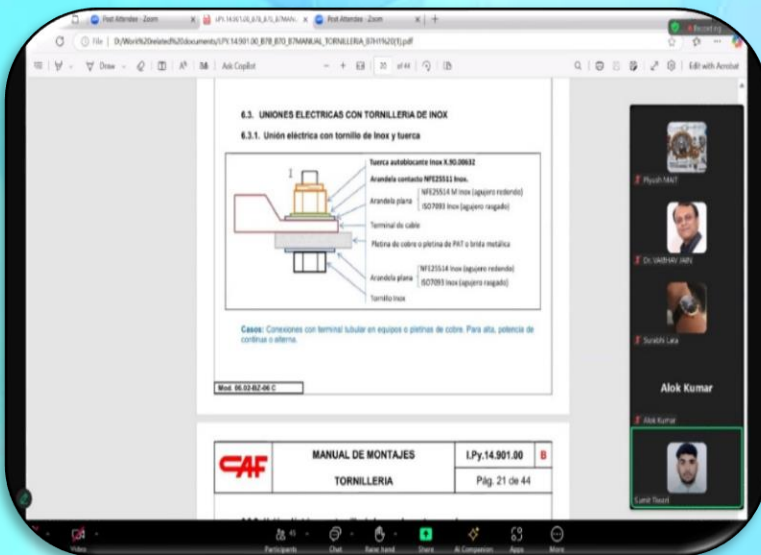
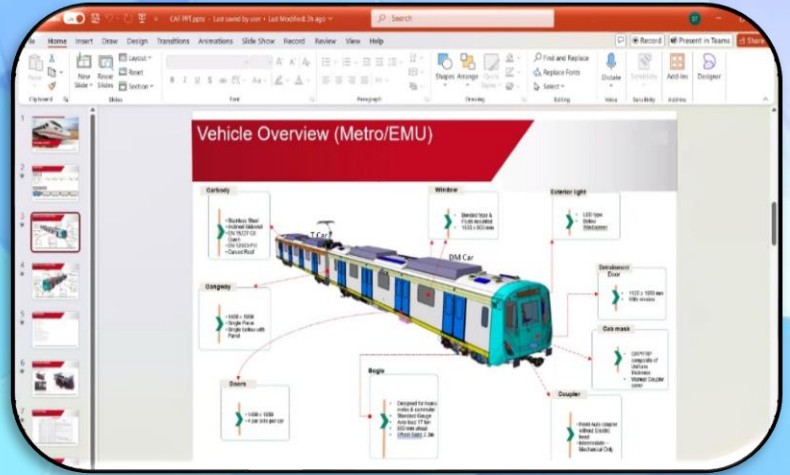
On November 23, 2024, the Department of Mechanical Engineering at Maharaja Agrasen Institute of Technology (MAIT) organized an online interaction and industrial overview session on the topic "*Current Practices of MFH Department in Bosch Limited*". The session featured **Er. Prince**, an alumnus of Department of Mechanical Engineering and currently an engineer at Bosch Limited, Jaipur.

Designed to bridge the gap between academia and industry, the session provided participants with insights into cutting-edge practices at Bosch Limited, fostering industry-academia connections. Attendees benefited from direct interaction with an industry expert and received certificates of participation, enhancing their academic and professional growth.



Industrial Interaction on Piping in Rolling Stock

On November 24, 2024, Department of Mechanical Engineering of MAIT organized an engaging online session Titled “*Components Installation and Piping in Rolling Stock (3D Design and 2D Drawings)*”.



Led by alumnus and CAF Design Engineer *Er. Sumit Tiwari*, the session introduced participants to practical applications of Computer-Aided Design and Drafting (CADD) in the metro systems of the rolling stock industry. *Er. Tiwari* discussed metro components like propulsion systems, braking mechanisms, and HVAC systems, emphasizing design precision for safety and efficiency.

He also highlighted the use of 3D modeling to identify design issues early and the role of 2D drawings in manufacturing. The session also demonstrated CADD tools like AutoCAD, CATIA, and SolidWorks through case studies addressing challenges such as weight reduction and space optimization.



Research Excellence Award

On September 5, 2024, a special ceremony celebrated the outstanding contributions of **Dr. Piu Jain**, who was honored with the **“Research and Innovation Award”** for her work on the TISM approach. This approach has significantly influenced the academic landscape, inspiring countless students, and colleagues.

Dr. Madhukar was recognized with the **“Research and Innovation Award”** for his pioneering work on the Markovian approach to evaluate circularity in supply chain for non-ferrous metal industry, bridging the gap between research and practical application to solve complex challenges. The ceremony highlighted the remarkable achievements of Dr. Jain, and Dr. Madhukar, celebrating their lasting impact on academia, research, and innovation.



"Imagination is more important than knowledge."

- Albert Einstein

Technical Society's Orientation Day

Team Jatayu

On 11th September 2024, Team Jatayu, the official BAJA SAE team of Maharaja Agrasen Institute of Technology, kicked off its much-anticipated Orientation event with an exhilarating start. Over 50 enthusiastic students from various B.Tech branches gathered to be a part of this exciting journey.

The event was organized by the Department of Mechanical Engineering which provided participants with an exclusive behind-the-scenes look at the inner workings of the team and the departments. The orientation was both informative and engaging, beginning with an introduction to the fundamentals of ATV (All-Terrain Vehicle) building, which is at the core of the team's work. The students were introduced to the intricate process of designing, engineering, and constructing a high-performance ATV for the BAJA SAE competition. The session was designed to ignite passion and interest in the field of automotive engineering and provide hands-on insights into the real-world applications of their academic learning.

In true Team Jatayu fashion, the event was interactive, fun, and packed with energy. The participants had the opportunity to ask questions and clarify their doubts during a lively doubt-clearing session. The orientation concluded with a spectacular display of the team's trophies, proudly showcasing their remarkable 13-year legacy of success in the BAJA SAE competitions, a testament to their hard work, dedication, and achievements. Overall, the orientation served as a perfect introduction to the exciting world of Team Jatayu and sparked the enthusiasm of the new members, setting the tone for another year of innovation, collaboration, and success.



3D Space Club

3D Space Club conducted a highly engaging orientation session, attended by over 45 students, to showcase our expertise in 3D printing technology and innovative projects. The event, which lasted over 1.5 hours, served as a platform to introduce participants to the exciting possibilities and advancements in 3D printing.

The session began with an introduction to the basics of 3D printing, followed by an in-depth explanation of different 3D printing technologies, including Fused Deposition Modeling (FDM), Stereolithography (SLA), and Selective Laser Sintering (SLS). The team demonstrated the use of various materials, such as plastics, resins, and metals, while emphasizing their applications in industries like healthcare, manufacturing, and design. Throughout the event, we showcased some of the key projects, offering a behind-the-scenes look at how we leverage 3D printing to solve complex challenges.

Attendees were encouraged to ask questions and interact with our team, fostering a collaborative and inquisitive atmosphere. 3D Space Club remains committed to driving innovation and looks forward to hosting similar events to empower students and professionals alike.



Team Aerostars

On 14th August 2024, Team Aerostars under Department of Mechanical Engineering showcased its past work and achievements along with other societies of MAIT. Multiple drones were put out to exhibit along with continuous crowd interaction, which attracted students from different branches and their parents to the table.

A Live Drone Flying Simulator was installed which served as the major attraction and gave the students a hands-on experience of flying FPV Drones.

“Super Cool, Thrilling, Fantastic, Fascinating”: these are just some of the words that we noticed amongst the reviews that we received from the visitors, showing the impression we made on our audience.

Cygnus, one of our most reliable drones, performed aerial stunts multiple times which gathered a ton of attention.

In the 4-hour event, more than 250 students were attracted towards the exhibit, out of which approximately 150 students expressed interest in joining the society



“Research is seeing what everybody else has seen and thinking what nobody else has thought.”

ASHRAE Student Branch MAIT Football Tournament



On 14th September 2024, **ASHRAE Student Branch** at **Maharaja Agrasen Institute of Technology** achieved an outstanding victory by winning the **1st prize** in the **Inter-College Football Tournament**.

This remarkable achievement reflects the team's dedication, teamwork, and competitive spirit. The win not only highlights the athletic prowess of the students but also reinforces the spirit of excellence that runs through every aspect of student life at MAIT.

Congratulations to the **ASHRAE Student Branch** football team for their exceptional performance and for bringing home this prestigious trophy!



International Symposium on Clean Air, Water, and Energy: Circular Economy

On 16th September 2024, the **International Symposium on Clean Air, Water, and Energy: Circular Economy** took place at the **Qutub Institutional Area, Delhi**, with the esteemed presence of **Mr. Dennis Knight, President of ASHRAE (USA)**, and numerous HVAC industry experts. The event featured a **Poster Presentation Competition**, where students from various institutes presented their innovative ideas on clean air, water, energy, and circular economy concepts.

Among the participants, **Mr. Mayank Jately**, student of Department of Mechanical Engineering Department, MAIT secured the **3rd position** in the competition. Mr. Jately's remarkable achievement was guided by **Dr. Vaibhav Jain**, who provided expert mentorship throughout the process.

The symposium was attended by more than **60 students** from different institutes, and notable figures such as **Ms. Arundhati Singh Khanna, President of AIC, Mr. Gaurav Mathur, Mr. Abhishek Jain, Ms. Priyanka, Mr. Abid Hussain, Mr. Sunil Gupta**, and many other industry experts and academicians.

Mr. Jately was awarded a **prize of USD50** along with a **one-year ASHRAE membership** in recognition of his innovative presentation. This achievement highlights his hard work and showcases the departments's commitment to fostering talent in sustainable energy solutions. Congratulations to Mr. Jately for his outstanding performance, in the field of clean energy and environmental sustainability.



ASHRAE Travel Grant

Department of Mechanical Engineering is thrilled to announce that **Ms. Anushka**, a dedicated **ASHRAE student** from **Maharaja Agrasen Institute of Technology**, has secured the **2nd position** on the waitlist for the **travel grant of \$1,100 USD** to attend the prestigious **2025 ASHRAE Winter Conference** in **Orlando**.

Thank you for your submission for an ASHRAE Travel Grant for the 2025 Winter Conference in Orlando. The Student Activities Grant Subcommittee recently met virtually to review all 96 applications. Unfortunately, your application was not successful at this time. However we do have you listed as our second alternate in the event that one of the ten successful applicants is no longer able to attend. We have some students that may not be able to secure the necessary visa for travel to the United States. I will let you know as soon as possible if anyone is unable to accept the grant.

We hope that you will still be able to join us in Orlando for the conference. While I wait for confirmation from the ten winners, I would encourage you to reach out to your local Student Activities Chair to see if your Chapter can provide any financial support.

Accenture Innovation Challenge

Accenture Innovation Challenge

Platform partner **H2S**

OVERVIEW

The Accenture Innovation Challenge 2024 is designed to empower students across various academic backgrounds to come forward with innovative solutions that leverage cutting-edge technologies like Generative AI.

The vision of this challenge is to foster creativity, encourage sustainable growth, and identify game-changing business models that address pressing real-world issues while aligning with Environmental, Social, and Governance (ESG) objectives. This initiative aims to shape future leaders by connecting them with opportunities that encourage breakthrough innovations.

Accenture Innovation Challenge

Platform partner **H2S**

Welcome to the Accenture Innovation Challenge Bootcamp

The Accenture Innovation Challenge, led by Mr. Shakti Singh, promotes innovation through generative AI to develop transformative business models aligned with environmental, social, and governance (ESG) objectives.

This initiative fosters creativity, mentorship, and sustainable growth by leveraging AI to optimize processes like sustainability reporting and supply chain transparency. Offering cash prizes and career development opportunities, the challenge emphasizes holistic growth and responsible innovation.

Past champions, like Mr. Aniket, highlight the invaluable networking and mentorship benefits. By inspiring participants to create sustainable solutions, the challenge drives positive change, empowering future leaders to shape a harmonious, sustainable future for businesses and society.

Workshop on Radiant Cooling System

On 19 September 2024, Department of Mechanical Engineering at Maharaja Agrasen Institute of Technology, in collaboration with the ASHRAE MAIT Student Chapter, organized an informative workshop focusing on one of the most efficient and sustainable cooling technologies – **Radiant Cooling Systems**. The workshop was led by the distinguished speaker, **Mr. Devin Abellon, P.E.**, an expert in the field of heating, ventilation, and air conditioning (HVAC) systems, who shared his profound knowledge and insights into this cutting-edge technology.

The event attracted a significant number of attendees, including students, faculty, and professionals from various disciplines, all eager to understand how Radiant Cooling Systems are reshaping the way we think about building comfort and energy efficiency.

As climate change continues to intensify, the need for innovative and energy-efficient cooling solutions has become more pressing than ever, making this workshop not only relevant but also timely.



Industrial Visit at Relaxo Footwears Limited



On 21st September 2024, 25 students and 4 faculty members from Maharaja Agrasen Institute of Technology visited Relaxo Footwears Limited, Bahadurgarh. The visit began at 11:00 AM with an introduction to Relaxo, a leading Indian footwear brand producing PU footwear with a capacity of 200,000 pairs daily.

The guided tour highlighted key manufacturing processes, including stitching (40% manual) and automated tasks like cutting, printing, and embossing. This insightful experience provided students with practical knowledge of industrial operations and manufacturing techniques.



Tinkercase 2.0 @ Delhi Technological University

On 14th October 2024, Team Aerostars from the Department of Mechanical of Maharaja Agrasen Institute of Technology proudly secured **2nd position** at **Tinkercase 2.0**, an exciting event organized by IEEE at Delhi Technological University, Delhi.

The team impressed both the judges and participants with their unique pusher-configured drone, a design that stood out for its innovation, technical sophistication, and practical application.



The team's project not only demonstrated their advanced understanding of drone technology but also highlighted their ability to push the boundaries of engineering design.

Their success at Tinkercase 2.0 reflects the hard work, creativity, and technical expertise of the entire team. The drone's unique configuration and performance captured the attention of industry experts and fellow participants, showcasing the remarkable capabilities of Team Aerostars.

Workshop on Drone Technology

On 18th October 2024, Department of Mechanical Engineering in collaboration with Team Aerostar and Department of Broadcasting, Government of India, organized a **workshop on “Drone Technology”**. The event provided students with insights into UAVs, their applications in fields like mapping and surveillance, and advancements in drone design.

The workshop featured hands-on sessions, discussions on industry applications, and details of an upcoming drone competition by **BECIL**.

It fostered interest in drone technology, linking academia with industry and inspiring innovation in aerospace engineering.

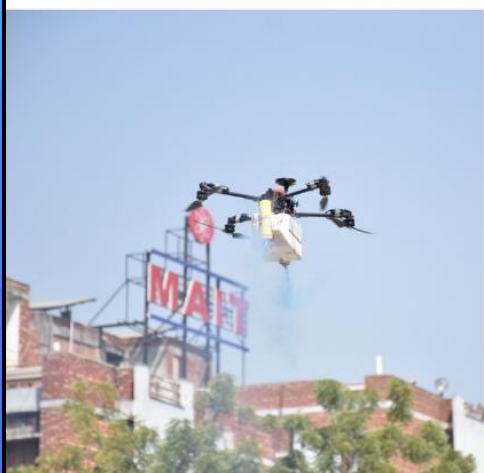


MATES Silver Jubilee Celebration

As part of MATES Silver Jubilee Celebration, on October 24, 2024, Maharaja Agrasen Institute of Technology hosted showcase events highlighting the achievements of its students. Graced by Founder Chairman Dr. Nand Kishore Garg, Chairman Sh. Vineet Kumar Lohia, Director Prof. Neelam Sharma, and other dignitaries, the event celebrated innovation and academic excellence.

Prominent societies like Jatayu showcased advanced vehicle designs and performed a thrilling stunt show, Aerostars demonstrated cutting-edge drone technology with a mesmerizing display, and the 3D Space unveiled sustainable 3D printing projects, including filament production from plastic bottles, a step towards recyclability and reusability.

Students engaged with dignitaries, receiving valuable feedback on their work, while leaders praised their creativity and technical skills. The event celebrated MAIT's legacy of fostering innovation and set the stage for future advancements, solidifying its reputation in engineering and technology education.



MATES Silver Jubilee Celebration: Grand Finale



On November 10, 2024, **MATES** marked its *Silver Jubilee Grand Finale* at **Vigyan Bhavan, Delhi**, celebrating 25 years of excellence. The event brought together trustees, faculty, students, alumni, and dignitaries, with **Honourable Vice President Shri Jagdeep Dhankhar** as the chief guest.

Shri Dhankhar praised MATES' dedication to education, urging students to embrace challenges and contribute to society. Speeches by **Founder Chairman Dr. Nand Kishore Garg, Chairman Sh. Vineet Kumar Lohia, and GGSIP University VC Dr. Mahesh Verma** along with other honourable guests celebrated milestones and reaffirmed MATES commitment to societal development.

The event honoured MATES' legacy and inspired aspirations for a brighter future, setting the tone for its next chapter.



Internship Fair @ MAIT



On October 23, 2024, as part of the Silver Jubilee celebrations at MAIT, a one-day Internship Fair was organized for undergraduate students, focusing on Mechanical Engineering. The event saw over 200 enthusiastic students registering to explore diverse internship opportunities and engage with industry leaders.

Eleven prominent Mechanical Engineering companies, including *CJ Tech Pvt. Ltd.*, *Ornate Solar*, *Dias Bearing*, *Guru Kirpa Engineering Works*, *Marwaha Manufacturing*, *Steel Strips*, *Uboard India Limited*, *Dharaksha Ecosolutions*, *Exicom*, *Strataroh Ventures Pvt. Ltd.*, and *Nextup Robotics*, participated in the fair, creating a vibrant platform for professional growth and networking. The event served as a bridge between academia and industry, offering students invaluable exposure and the chance to kickstart their careers in their chosen fields.

With an electrifying atmosphere and opportunities to connect with top industry names, the Internship Fair was a remarkable milestone in fostering industry readiness and career advancement, leaving a lasting impact on all participants.

INDIA Auto Expo 2025 Audition

On October 25, 2024, Department of Mechanical Engineering hosted a Play Role Activity in collaboration with event management company Golden Faces, preparing students for the INDIA Auto Expo 2025.

The event saw 110 enthusiastic participants showcasing their automotive knowledge, technical skills, and innovative ideas. A panel from Golden Faces evaluated students on their expertise, creativity, and practical problem-solving, selecting the best to represent the institution at the prestigious expo from January 17-22, 2025.

The chosen students will collaborate with top automotive companies like Toyota, Tata Motors, and Maruti Suzuki, gaining industry exposure and showcasing their ideas on a global stage.

The event underscored the institution's commitment to bridging academia and industry, empowering students to excel in automotive innovation.



Glimpses of First Year Orientation Day

On 78th Independence Day, MAIT celebrated with vibrant patriotism and unity along with the Orientation Day for first year students. The event featured a flag hoisting by Dr. Nand Kishore Garg, inspiring speeches, cultural performances, and an impressive NCC Cadets parade, leaving everyone with pride and purpose.

During the day, different societies showcased their innovative projects, sparking curiosity and welcoming enthusiastic new members. The event highlighted creativity and collaboration, setting the tone for an exciting year ahead.



“Talent is a flame. Genius is a fire.”
– Bernard Williams

Paper Presentation at International Conferences

2nd International Conference on Emerging Aspects of Manufacturing, Thermal, and Design Engineering (MATHED-2024) National Institute of Technology, Hamirpur

Vansh Choudhary and Mayank Agarwal, students of Department of Mechanical Engineering presented their work entitled "*Design Optimization and Analysis of Connecting Rod in IC Engines*", under the guidance of Ms. Surabhi Lata at 2nd International Conference on Emerging Aspects of Manufacturing, Thermal, and Design Engineering (MATHED-2024) held at NIT, Hamirpur.

The conference was hosted by the Department of Mechanical Engineering at the National Institute of Technology Hamirpur from 16th to 18th December 2024. This prestigious event served as an exceptional platform to showcase their innovative work and discuss its potential applications in advancing internal combustion engine efficiency.

The presentation emphasized the significance of design optimization in reducing material usage while maintaining performance, and it explored the role of different materials in enhancing the durability and reliability of connecting rods. The event allowed us to interact with esteemed academicians, researchers, and industry experts, fostering insightful discussions and constructive feedback.



**4th International Conference on Future Technologies in
Manufacturing, Automation, Design and Energy (ICoFT MADE 2024)**
National Institute of Technology, Puducherry

Ms. Surabhi Lata along with Mr. Siddharth represented Maharaja Agrasen Institute of Technology, Delhi at the prestigious 4th International Conference on Future Technologies in Manufacturing, Automation, Design and Energy (ICoFT MADE 2024). The event was organized by the Ratan Tata Department of Mechanical Engineering, National Institute of Technology, Puducherry, and was held at Karaikal, India from December 11th to 13th, 2024.

They presented a groundbreaking research paper titled *“A Comparative Analysis of Nanoparticle Size and Concentration of Silver Nanoparticles Based on Green Synthesis with Various Mixtures of Aloe Barbadensis Miller: A Sustainable Approach”*.

They focused on the green synthesis method of producing silver nanoparticles using Aloe vera extract. This innovative approach emphasizes sustainability by reducing the environmental impact of traditional chemical synthesis methods.

The comparative analysis in this paper highlights how different compositions of Aloe vera extracts affect the size and concentration of nanoparticles, providing important insights for optimizing green nanotechnology processes. This research will contribute significantly to the advancement of sustainable practices in fields such as medicine, electronics, and environmental sciences.

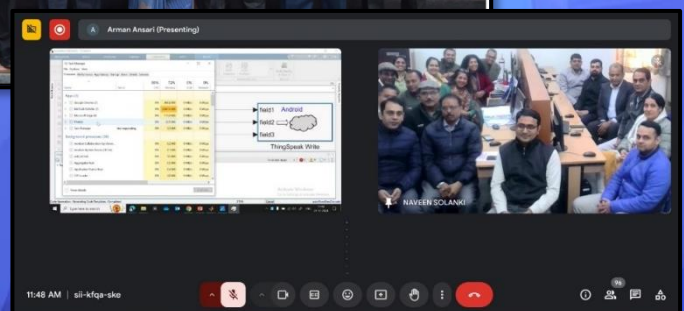


Faculty Development Program on Modelling and Simulation using MATLAB

Maharaja Agrasen Institute of Technology, in collaboration with the National Institute of Technical Teachers Training and Research, Chandigarh, successfully organized a Faculty Development Program (FDP) on "*Modeling & Simulation Using MATLAB*" from December 16 to 20, 2024. The program was hosted at MAIT's Remote Centre in Rohini, Delhi, and aimed to equip faculty, researchers, and professionals with advanced skills in modeling and simulation for engineering systems.

The FDP covered topics such as mathematical modeling, dynamic system simulations using MATLAB and Simulink, data visualization, signal processing, and IoT system integration. It combined theoretical lectures with hands-on sessions, led by distinguished speakers including *Dr. S. S. Dhami*, *Dr. Deepam Goyal*, and others, who shared their expertise in advanced computational tools and real-world applications.

MAIT provided state-of-the-art infrastructure and logistical support to ensure seamless participation. The program concluded with a feedback session where participants praised the clarity and relevance of the content. This successful initiative highlighted the importance of technical education and collaboration in fostering innovation and academic excellence.





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