Academic Year 2024-25

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
1	**Seminar on "Project Management"**	**06-09-2024**	**30+**	**Mr. Shamith,** Project Engineer, Automech Steel, Abudhabi	**PO-1 to, 12, PSO1-2**

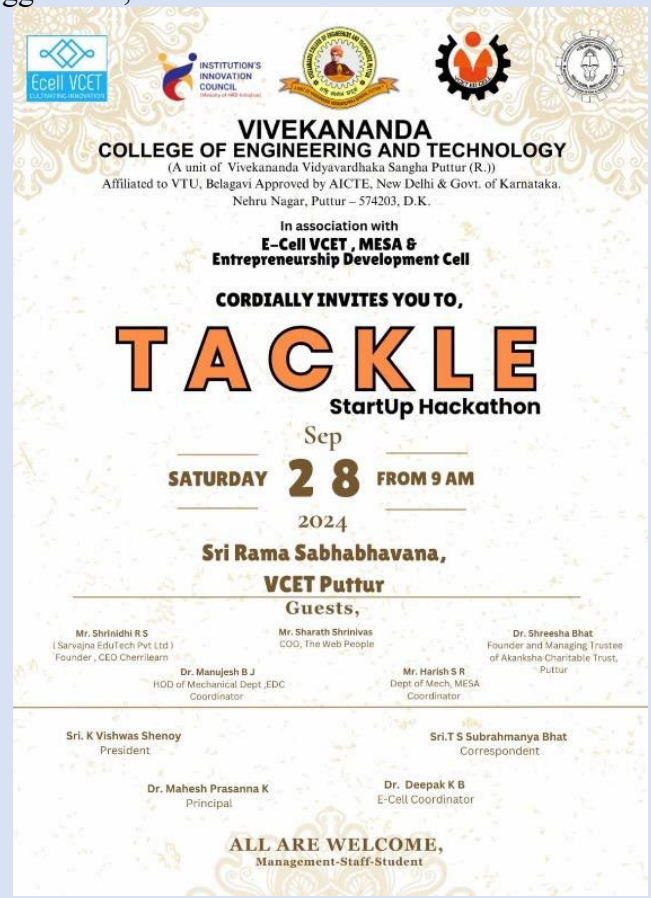
Department of Mechanical Engineering had organized Seminar on "Project Management" in association with Mechanical Engineering Students Association (MESA), ISTE Student Chapter, Alumni Cell & IQAC on 06/09/2024. Mr. Shamith, Project Engineer, Automech Steel, Abudhabi had participated as a resource person for the event. He gave insight on the importance of Project Management topics such as Planning, Organization, Execution, and Risk management in industries. He emphasized that there will be lot of job opportunities in the mechanical engineering field in near future. He motivated students to get trained in the domain and grab the opportunities. The seminar was organized in E-102, Krishna Chethana block with around 30+ participants from mechanical engineering department. Mr. Harish S. R. Coordinator of MESA introduced the speaker and welcomed the gathering. Mr.Sudarshan M.L., Assistant Professor Dept. of mechanical engineering delivered vote of thanks to the resource person.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
2	**TACKLE Startup Hackathon**	**28-09-2024**	**80+**	**Mr. Shrinidhi R. S.,** Founder and CEO of Sarvajna EduTech Pvt Ltd and Cherrilearn **Mr. Sharath Shrinivas,** Chief Operating Officer (COO) of The Web People **Dr. Shreesha Bhat,** Founder and Managing Trustee of Akanksha Charitable Trust, Puttur	**PO-1 to 5,8 10, 12, PSO 2**

On 28th September 2024, Vivekananda College of Engineering and Technology (VCET), Puttur, hosted a landmark event titled "Tackle Startup Hackathon," organized i collaboration with three prominent bodies of the institution—E-Cell VCET, the Entrepreneurship Development Cell (EDC Cell), and the Mechanical Engineering Students Association (MESA). The primary objective of this hackathon was to ignite the entrepreneurial flame within the student community, encouraging participants to think critically about real-world problems and devise innovative solutions in the form of startup ideas.

The event opened with great enthusiasm and a sense of purpose at 9 AM. It began with the ceremonial inauguration, led by Dr. Mahesh Prasanna K., Principal of VCET Puttur. In his inaugural address, Dr. Prasanna emphasized the importance of cultivating a startup ecosystem in academic institutions to prepare students for the ever-evolving business and technology landscapes. The inauguration was graced by key figures from the college, including Dr. Manujesh B. J., Head of the Mechanical Engineering Department; Dr. Deepak KB., Coordinator of E-Cell; and Mr. Harish S. R., Coordinator of MESA. Their presence signified the strong support from the institution's leadership for fostering innovation and entrepreneurship among students.

The main highlight of the event was the participation of 20 student teams from various disciplines across the college. These teams, comprising budding entrepreneurs, presented their unique startup concepts in fast-paced pitches. Each team was given a designated time slot to showcase their ideas, followed by a Q&A session where the jury provided feedback, suggestions, and constructive criticism.



The panel of judges was composed of highly accomplished professionals and entrepreneurs:

1. Mr. Shrinidhi R. S., Founder and CEO of Sarvajna EduTech Pvt Ltd and Cherrilearn, who has a wealth of experience in the education technology sector. His insights on education-driven innovations were invaluable to the participants.
2. Mr. Sharath Shrinivas, Chief Operating Officer (COO) of The Web People, a successful web solutions company, who brought his expertise in scaling tech-driven businesses.
3. Dr. Shreesha Bhat, Founder and Managing Trustee of Akanksha Charitable Trust, Puttur, offered a unique perspective on social entrepreneurship, emphasizing the importance of aligning business goals with social impact.

Each jury member took a keen interest in the ideas presented, evaluating them based on various parameters such as innovation, feasibility, market potential, and scalability. The diversity of ideas presented by the participants ranged from technology-driven solutions to socially impactful ventures, reflecting the creativity and problem-solving capabilities of the students.

The hackathon served not just as a platform for competition, but also as an educational experience. The jury members shared their entrepreneurial journeys, offering invaluable advice on overcoming challenges, raising

capital, and scaling operations. Participants had the opportunity to network with these industry leaders and gain mentorship opportunities.

By 2 PM, the event concluded with a closing address, where the efforts of all participants were acknowledged, and the importance of continuous learning in the entrepreneurial journey was reinforced. The success of "Tackle Startup Hackathon" lay not just in the competition itself, but in the environment, it created one where the students were encouraged to take risks, explore new ideas, and envision themselves as future entrepreneurs. This event marks a significant milestone for VCET's entrepreneurial ecosystem, driven by the collective efforts of the E-Cell, EDC Cell, and MESA, and supported by the institution's leadership. It reflects the college's commitment to nurturing future innovators and startup founders, and the hackathon is expected to inspire many more such initiatives in the coming years.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
3	2nd Year ME Industrial Visit: AY 2024-25	24-10-2024	31+ 4	**Mr. Roshan,** Port Engineer of NMPT, Mangaluru **Mr. Pramith,** Lecturer, GTTC, Mangaluru Mr. Dananjya, HR, Gurucharan Industries, Mangaluru	PO-1 to 12, PSO 1, 2

On October 24, 2024, Vivekananda College of Engineering & Technology organized an industrial visit to three core mechanical engineering companies in Mangaluru, Karnataka. This initiative aimed to provide students with practical exposure to the mechanical engineering industry, enhancing their understanding of real-world applications of their studies. The visit was organized by HOD of Mechanical engineering branch Dr. Manujesh B J. & Prof. Raghavendra Prasad S.A. A team of 31 students of 3rd Semester, ME and 4 faculties started their journey from the VCET campus on 24th Morning at 8.00AM. The team returned to VCET Campus at 7.30pm in the evening.

1. NMPT, Mangaluru

The name "New Mangalore Port" distinguishes it from an old harbour or port in Mangalore city which is called "Mangalore bunder" or "Old bunder". The old harbour is south of New Mangalore port and is now used for fishing and for ferrying small goods. The major imports of the port are Crude and Petroleum products, LPG, Wood pulp, Timber logs, finished fertilizers, Coal, Iron Ore, Liquid ammonia, Sand, and Phosphoric acid, other liquid chemicals, and containerized cargo. There are total 17 berths. It is an artificially created port in 1975 and is managed by various companies such as JSW, adani etc. The crude is imported from various countries and sent to MRPL refinery to convert crude to petroleum and supplied to various parts of nation. The activities of

arriving foreign ship are managed by coastal guards or authorized companies in the port. There are few lagoon points, they are the area of relatively shallow, quiet water situated in a coastal environment and having access to sea, but separated from open marine conditions by a barrier. New Mangalore Port offers berths for cruise vessels. International tourists alight here and travel the coastal region of Karnataka state. It offers a helicopter facility for the tourists coming by cruise ships.

Mr. Roshan, Port Engineer of NMPT, Mangaluru welcomed the students. During the visit he showed various sections of the port. Port E-Bus facility was provided for the port tour for the students and staff. Mr. Roshan Mr. Chandrashekar Naik (Mechanical Executive Engineer) and Mr. Mylari (Civil Engineer) briefed about the history, operations occurs at various terminal, loading, unloading and tracking systems of the container and disaster management system established at the port. They also explained the working of stackers, offshore cranes and Excavators systems. The visit has enhanced the students' knowledge on shipping, loading, customs formalities, and storage facilities in the port. Also, they understood different machinery used in the port to handle the materials. Overall the visit was educative and informative.

2. GTTC, Mangaluru:

Mr. Pramith, Lecturer, GTTC, Mangaluru welcomed all the students and staff. The Visit started with campus tour to Research and Development section. MR. Pramith explained the working of CNC machines, 3D printing, Precision manufacturing, Automation & Mechatronics Labs. The students learnt various industrial workshop practices, CNC machining operations and applications. Students also observed tool, die making, modern equipment's, different machining operations and got knowledge about both conventional and non-conventional machining operations.

This Industrial visit is very helpful in our future practical Life & bring a positive change in our thinking & practical behavior regarding Education & specializing our technical skills. Students have got practical knowledge about the advancement in technology of machines and use of programming in field of Mechanical engineering. Students observed precise cutting, surface finishing of the jobs, working of CNC machines with multiple cutting tools, making of plastic objects using "Injecting technology" of plastics, types of machines available for tool & die making.

3. Gurucharan Industries, Mangaluru

Mr. Dananjya, HR, Gurucharan Industries, Mangaluru Welcomed our students and staff. He explained The Production process of machines, The steps involved in production line, Quality of products, Marketing techniques used, Costing methods adopted, Wage calculations of workers, Employee attendance systems etc. The company also briefed the future expansion plans. Students had a good learning and memorizing experience and the overall visit was a great success. The visit to the industry provided a plethora of information about the Mechanical Engineering. It was observed that the safety measures implemented to ensure worker safety. Staff members are equipped with helmets, masks, and gloves. Additionally, the industry prioritizes the health of its employees by providing health camps every three months. The visit provided valuable insights into the integration of advanced machinery, sustainable practices and comprehensive employee welfare programs in a manufacturing setup. Mr. Dananjaya treated us with ice cream at the end of the visit adding a delightful touch to our experience.

This Industrial visit helped students in understanding the working of various machineries, production line and quality control, Quality inspections, safety precaution to be followed in working areas, standards followed in industries etc. Students' gathered a lot of knowledge about the advancement in technology of machines and use of machine programming in field of Mechanical engineering. This Industrial visit also focused on student's internship and training at GTTC, Mangaluru for final year students for duration of 4 to 6 months, so that

students can learn, Modern technology, Processing operations, Molding methods, Manufacturing and Quality inspections.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
4	Seminar on "Introduction to Digital Manufacturing"	12-11-2024	60	Mr. Royston Malcolm Fernandez, Mr. Abhinav Krishnan, and Mr. Vignesh V Kini	PO-1 to 12, PSO 1, 2

The Department of Mechanical Engineering, in collaboration with the Mechanical Engineering Students Association (MESA), hosted a seminar on "Introduction to Digital Manufacturing" on November 12, 2024. The event took place at the Sir M. Visvesvaraya Hall, Krishna Chethana Block, and attracted over 60 enthusiastic participants from the Mechanical Engineering Department. The seminar featured three expert resource persons: Mr. Royston Malcolm Fernandez, Mr. Abhinav Krishnan, and Mr. Vignesh V Kini, who provided valuable insights into the evolving landscape of Digital Manufacturing. They explored key topics, including Computer-Aided Manufacturing (CAM), Computer-Aided Engineering (CAE), and Computer-Aided Design (CAD), highlighting their relevance and applications in the mechanical engineering industry. The speakers also introduced students to important software tools that are shaping the future of the field, such as Siemens NX and SCADA, emphasizing their role in modern manufacturing processes. They also discussed specialized 4-to-6-month certification courses, which provide hands-on training and the opportunity to earn credentials both from the institute and Siemens. These certifications, they noted, would be valuable assets for students aspiring to enter the workforce in the digital manufacturing domain. A key takeaway from the seminar was the growing demand for skilled professionals in digital manufacturing. They highlighted that with the increasing integration of digital technologies into manufacturing, numerous job opportunities are emerging in the mechanical engineering sector. He encouraged students to take proactive steps in acquiring relevant skills and certifications, urging them to stay ahead of the curve and seize these exciting opportunities. The event was inaugurated by Mr. Sooryakanth, Secretary of MESA, who welcomed the gathering and set the tone for the session. The resource persons were introduced by Mr. Vinoothan S N, and the seminar concluded with a vote of thanks from Mr. Gagandeep S, President of MESA, who expressed his gratitude to the speakers and participants for making the event a success.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
5	CLEANING DRIVE	14-11-2024	100+	MESA	PO-1 to 5,8 10, 12, PSO 2

Department of Mechanical Engineering had organized "CLEANING DRIVE" program in association with Mechanical Engineering Students Association (MESA), ISTE Student Chapter & IQAC on 14/11/2024. Around 100+ participants

including staff and students from mechanical engineering department had participated and made the event meaningful. State highway road at Nehru Nagara was the location for cleaning drive program. Finally, Mr. Harish S. R. and Mr. Naveen S. P., Staff coordinators, MESA briefed about the importance of cleanliness in campus premises and supervised

the same. The overall event was successful resulting in a clean and tidy environment. The principal and management appreciated the initiation.

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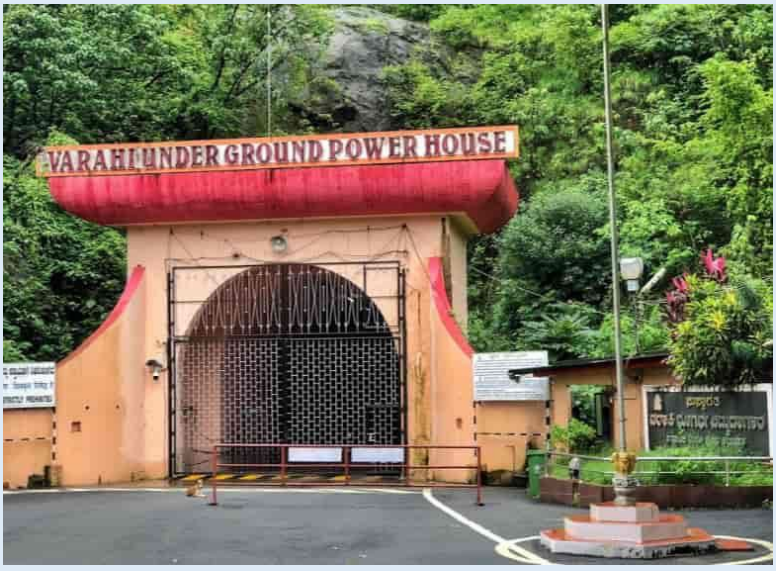
6	3rd Year ME Industrial Visit: AY 2024-25	15-11-2024	28+5	Varahi Power Plant Section Engineer	PO-1 to 12, PSO 1, 2

On November 15th, 2024, Department of Mechanical Engineering, VCET, Puttur, organized an industrial visit to Varahi Hydro Power Plant, Udupi, Karnataka. This initiative aimed to provide students with practical exposure to the mechanical engineering industry, enhancing their understanding of real-world applications of their studies. The visit was organized by Prof. Naveen S P. A team of 28 students of 5th Semester, ME and 5 faculties started their journey from the VCET campus on 15th Morning at 5.00AM. The team returned to VCET Campus at 10.00pm in the evening.

1.Varahi Power Plant:



Our group had the privilege of visiting the Varahi Power Plant, a remarkable feat of engineering and a

significant contributor to India's renewable energy sector. The heart of the Varahi Power Plant lies deep beneath the surface. Its underground powerhouse, a marvel of engineering, houses four 115 MW units, bringing the total installed capacity to an impressive 460 MW. The most striking feature of the Varahi Power Plant is its underground powerhouse, carved into the mountainside. This design not only minimizes the plant's visual impact on the surrounding environment but also provides additional structural stability and protection from natural elements. The intricate network of dams, tunnels, and pipelines that divert water from the river to the powerhouse was impressive. This system ensures a continuous supply of water to the turbines, even during periods of low rainfall.

It consists of four units, each generating 115 kilowatts of power. This generated power is distributed to six lines: three for Shivamogga, two for Mangalore, and one for Heggunje. The materials used in manufacturing the turbine are nickel, chromium, and iron. The turbine has a lifespan of approximately 50 years. A vertically mounted Pelton wheel is used as the runner. The turbine operates at low pressure and rotates at a speed of 250 to 400 revolutions per minute. The outer tip diameter of the Pelton wheel is 4500 millimetres. It has 21 buckets, a pitch diameter of 3500 millimetres, and weighs 30 tonnes. The material composition is 13% chromium, 4% nickel, and stainless steel. The sheer size and power of the turbines and generators were awe-inspiring. We observed how the kinetic energy of falling water is converted into mechanical energy, which is then transformed into electrical energy.

The plant's emphasis on efficiency and reliability was evident in the regular maintenance and inspection procedures. The state-of-the-art control room provides real-time monitoring and control of the entire plant's operations. The use of advanced automation systems and digital technologies enables efficient and reliable power generation. Units 1 and 2 turbines rotates at a speed of 250 rpm, while units 3 and 4 turbines rotate at

300 rpm. Each unit comprises a cooling water pump which has 150 HP and a discharge capacity of 3700 LPM. The plant's commitment to safety was evident in the numerous safety signs, equipment, and procedures in place. The staff members were well-trained and vigilant in ensuring a secure working environment. We learned about the design and construction of large-scale generators and also gained insights into the maintenance and repair procedures for turbines and generators.

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7	**Final Year ME Industrial Visit: AY 2024-25**	**25-11-2024 to 26-11-2024**	**29+4**	**Mr. Gangadhar B V,** GM of Operations & Quality at P M Tools and Components. Mr. Venu Vasudevan, GM, RaViCables	**PO-1 to 12, PSO 1, 2**

On November 24, 2024, Vivekananda College of Engineering & Technology organized an industrial visit to four mechanical engineering companies in Bangalore, Karnataka. This initiative aimed to provide students with practical exposure to the mechanical engineering industry, enhancing their understanding of real-world applications of their studies. The visit was organized by the HOD of the Mechanical Engineering branch, Dr. Manujesh B J, and Prof. Sudarshan M L. A team of 29 students from the 7th Semester of ME, along with 4 faculty members, began their journey from the VCET campus on the morning of November 24 at 8:00 AM. On the last day of the trip, November 27, the team enjoyed a fun-filled day at Wonderla Bangalore. The team returned on November 28 at 5:30 in the morning.

1. P M Tools & Components, Bangalore

Mr. Gangadhar B V, the General Manager of Operations & Quality at P M Tools and Components, warmly welcomed us on our visit, which included both staff and students. He personally accompanied us throughout the facility, providing an in-depth explanation of the company's comprehensive manufacturing processes and the quality standards they uphold. The company specializes in producing prototypes for the automobile industry as well as other essential components like hose clips and clamps. We were introduced to various key processes, including power press operations, laser cutting, material testing in their dedicated lab, and checks on material thickness and hardness. Mr. Gangadhar detailed the common materials used, such as copper and zinc, and explained the different machining processes employed, such as milling, CNC pipe bending, CNC turning with face and chamfer, riveting, tapping, and vertical machining centres. We also observed the wire cutting and laser marking machines in operation. Additionally, he discussed the firm's efficiency in production, outlining how components are created based on per-minute and per-hour calculations. Through this visit, we gained valuable insights into the meticulous operations involved in both automobile prototyping and the manufacturing of various components, showcasing their commitment to quality and precision at every stage.

2. WOW Waters, Bangalore

During our visit to WOW Mineral Waters in Karnataka, we were warmly welcomed by the staff, who guided us through a detailed tour of their facility. The team explained the entire production process of their packaged drinking water and beverages, showcasing the advanced water treatment methods they use, including filtration, purification, and packaging. We were introduced to the process of creating bottles from plastic preforms, where compressed air is used to stretch and mold the preforms into fully-formed bottles. This process ensures precise bottle formation for packaging. Along with mineral water, the team also highlighted their diverse range of flavoured juices and health drinks. Additionally, the company's efforts toward sustainability were evident, particularly in their use of eco-friendly packaging materials. The visit provided valuable insights into their operations, commitment to quality, and their role in delivering refreshing hydration solutions to customers across Karnataka.

3. Kalyani Polymers, Bangalore

During our visit to Kalyani Polymers in Bangalore, we were given an in-depth tour of their facility, where the staff provided a detailed explanation of the various manufacturing processes they follow. The company primarily uses Polygrains as the base material for all their products. This material is subjected to an extrusion process that transforms it into polypropylene yarn, a key component in their operations. The yarn is then woven into ropes using four-spindle machines, which allows the production of ropes with diameters ranging from 1 to 1.8mm. Kalyani Polymers operates at a high capacity, manufacturing approximately 30,000 sacks per day, which are used across various industries for packaging and transport.

In addition to sacks, the company produces Fiber Crete, a specialized concrete mixture that enhances building and road construction. Fiber Crete, priced at 200 per kg, is utilized to strengthen cement roads and other structures, improving durability and crack resistance. We were also introduced to their range of colour shaders, which are used not only in concrete for construction purposes but also in the production of coloured threads. These colour shaders are added to polypropylene yarns, which are then woven into sacks and bags for different applications. The various colours signify different uses and purposes, making them easy to identify. These shaders are processed carefully, possibly in hot air ovens, to ensure a consistent colour and quality in the threads. The visit offered valuable insights into Kalyani Polymers' advanced production techniques, their commitment to high-quality manufacturing, and their significant contribution to the construction and packaging sectors.

4. Ravicab Cables, Bangalore

During our visit to Ravicab Cables, we were welcomed by Mr. Venu Vasudevan, the General Manager, who provided a comprehensive introduction to the company. They shared the company's history, growth, and key milestones, including major projects for Indian Railways since 2005, metro systems in Bangalore, Hyderabad, and Chennai in 2014, and international ventures in Germany, Bangladesh, and metro projects in Navi Mumbai, Kolkata, Ahmedabad, and Pune. Ravicab follows an environmental policy focused on sustainability. The company specializes in producing high-quality cables using advanced manufacturing processes, including medium wire drawing and double twist machines. They produce wires ranging from 0.25 sqmm to 1000 sqmm, using tools like silica diameter controllers for precision. Wires are shielded before tapping or covering for added safety. The company also has a high-speed extrusion line and produces specialized cables such as quad cables and solar cables. Ravicab rigorously tests its products for resistance, thermal stability, tension, flame, and ladder tests to ensure compliance with industry standards. Their products serve various sectors, including transport, building, power, and industrial, all manufactured to ISO standards. The visit provided valuable insights into Ravicab's advanced techniques, commitment to quality, and their role in supplying reliable cables for large-scale infrastructure projects.

Conclusion

This industrial visit provided students with a comprehensive understanding of the diverse manufacturing processes and advanced machinery used across different sectors. At P M Tools, students learned about the production of automotive prototypes, power press laser cutting, and the importance of material testing and quality control in manufacturing. Students observed the use of machine programming and automation in these processes, learning how these advancements contribute to efficient production and quality assurance. At WOW Mineral Waters, they gained insights into water purification, packaging, and the company's sustainability practices. The visit to Kalyani Polymers helped students understand extrusion processes, yarn weaving, and the production of specialized materials like Fiber Crete for construction. Lastly, Ravicab Cables showcased the production of high-quality cables, with a focus on wire drawing, extrusion, and rigorous testing for durability and safety. The visit also highlighted the importance of adhering to industry standards, safety protocols, and environmental policies. Overall, the experience enriched students' knowledge of modern manufacturing techniques and reinforced the relevance of hands-on training for final-year students, preparing them for internships and careers in the mechanical engineering field.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
8	**Alumin Talk on "Career Guidance"**	**21-11-2024**	**25+**	**Mr. Shishira Varadha,** Manager, JK Tyres, Mysore	**PO-1 to 5,8 10, 12, PSO 2**

Department of Mechanical Engineering had organized Seminar on "Career Guidance" in association with Mechanical Engineering Students Association (MESA), ISTE Student Chapter, Alumni Cell & IQAC on 21/11/2024. Mr. Shishira Varadha, Manager, JK Tyres, Mysore, had participated as a resource person for the event. He gave insight into the importance of mechanical engineering in industries and emphasized that there will be a lot of job opportunities in designing field. He motivated students to get trained in the domain and grab the opportunities. The session was demonstrated using real-world examples/case studies. The seminar was organized in E-102, Krishna Chethana block with around 25+ participants from the Mechanical Engineering department. Mr. Gagan., a student in 7th Sem Mechanical Engineering introduced the speaker and welcomed the gathering.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
9	**A Talk on "Important factors to be considered during the fabrication of karts for the racing event"**	**06-12-2024**	**20+**	**Mr. Shamith,** Senior Project Engineer, Meraki Global Energy, Dubai	**PO-1 to 5,8 10, 12, PSO 2**

Department of Mechanical Engineering organized a talk on "Important factors to be considered during the fabrication karts for the racing event" in association with Mechanical Engineering Students Association (MESA), ISTE Student Chapter, Alumni Cell, VCET SAEINDIA Collegiate Club & IQAC on 06/12/2024. Mr. Shamith, Senior Project Engineer, Meraki Global Energy, Dubai participated as a resource person for the event. He gave insight into the important factors such as Planning, procurement of materials, Organization, Execution, and Risk management in fabricating kart for the racing events. He motivated students to get trained in the domain and grab the opportunities. The seminar was organized in E-111, Krishna Chethana block with around 20+ participants from the mechanical engineering department. Dr. Deepak K B. Coordinator of VCET SAEINDIA Collegiate Club introduced the speaker and welcomed the gathering. Mr. Ramithraj., Leader of Team Reevan racing of mechanical engineering delivered the vote of thanks to the resource person.

SL. No	Odd/Even Semester Activities	Date-Month-Year	Details of Participants	Details of Resource Person(s)/Guest	PO&PSO's
10	**A Talk on "Energy Audit on Pumps"**	**11-03-2025**	**25+**	**Dr. K Gangadharan Nair,** Associate at Rachana Ener Care.	**PO1-2, PO3, PO5-6, PO8-12, PSO 2**

The Department of Mechanical Engineering, in association with the Mechanical Engineering Students' Association (MESA), organized a technical talk on the topic **"Energy Audit on Pumps"**. The session was held on 11th March 2025 at 11:30 AM in E-102, Krishna Chethana Block with around 25+ participants from the

mechanical engineering department. Mr. Sathwik welcomed the gathering. The primary goal was to enhance students' understanding of industrial energy usage and the importance of optimizing pump systems for energy efficiency. The talk was delivered by **Dr. K Gangadharan Nair**, Associate at Rachana Ener Care. Dr. Nair is a renowned expert in the field of energy conservation and has rich experience in conducting energy audits across various industries. Dr. Nair began the session by introducing the importance of energy conservation and the significant role pumps play in industrial energy consumption. He explained the concept of energy audits, their objectives, and methodology, especially in the context of pumping systems. The session covered: Types of pumps and their applications, Common inefficiencies in pump systems, Techniques to improve energy efficiency and Real-life case studies of energy savings through audits. He emphasized the economic and environmental benefits of regular energy audits. The session concluded with a Q&A, where students actively interacted and clarified their doubts. The technical talk was highly informative and insightful. It provided students with practical knowledge on energy audits and their relevance in the mechanical and industrial sectors. Mr. Swasthik P D delivered the vote of thanks to the resource person. The event successfully enhanced awareness about energy efficiency and sustainable practices.