

MECHANICAL Engineering

NEWSLETTER

(VOLUME - 9)

2024 - 2025 ODD SEMESTER

INSIDE THIS ISSUE:

- Club inaugurations
- Events conducted
- Student Triumps
- Scholarly success



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2024

MESSAGE FROM HEAD OF THE DEPARTMENT





DR. R RAJARAMAN HEAD OF THE DEPARTMENT

It is a great pleasure to reach you all with MECHRONICLE, Department newsletter Mechanical Engineering , SRM Institute of Science Technology, Vadapalani Campus. newsletter brings in various events, functions, and happenings in our department. Our Department in offering a student-centered pioneers atmosphere covering up all the verticals in hybridizing the learning environment and bringing out the student's talent. Our B. Tech Mechanical student Ms. Nethra Kumanan Engineering represented India in the 2020 Olympics in Tokyo, Japan. She was the first women sailor of India to qualify for Olympics.



Our Department expanded our alumni connects by organizing mentoring sessions for our current students. We have active collegiate clubs like Society of Automotive Engineers (SAE), Indian Society for Technical Education (ISTE), National Institution for Quality and Reliability (NIQR), Institution of Engineering and Technology (IET), Foundrymen Indian Institute of (IIF) Automation and Robotics club (ARC) that strives to bring in few more Industry connects in addition to the existing ones to bridge the gap between industry and academia. I hope and trust our Department will deep root the knowledge of Engineering into the minds of young people and prioritize to provide a diverse learning environment to meet and face new challenges in the coming years. We are thriving to lift our Department to the next level and make it the Department of Eminence (DoE) very soon. I thank all our students and faculty members for their contribution made and to be made. I congratulate the team for their efforts to bring out this newsletter successfully.



HOLDERS

FIRST YEAR 1st SEMESTER MECHANICAL- AIML



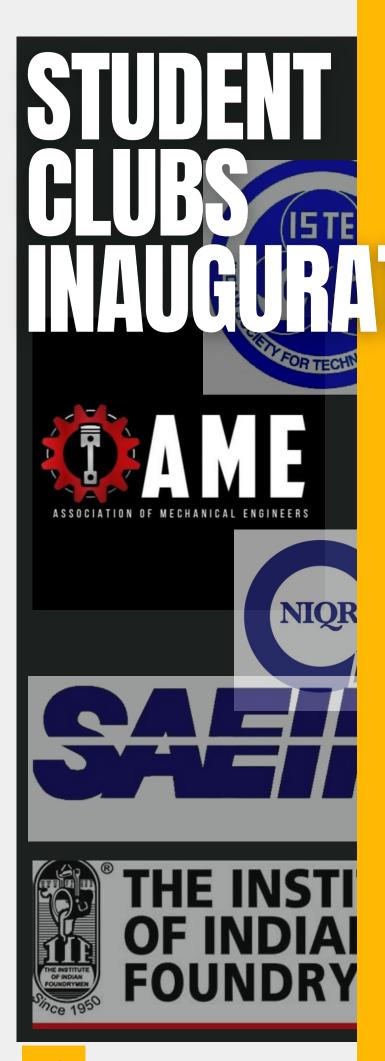
DAKSHITHA SGPA: 10



TEJASWINI SGPA: 10



PRATEEK SGPA: 10



MECHANICAL CLUBS

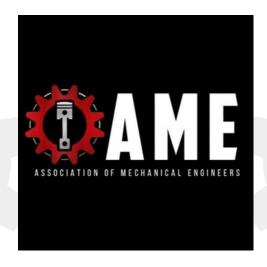
2024

2024 was the year for the launch of 5 new Mechanical Clubs. Especially the re-launch of AME happened this year.

On 26th July 2024 The following clubs were launched:

SAE
ISTE
IIF
NIQR
AME





On 26 of July 2024, the Department of Mechanical Engineering re-launched the AME student club. The association of Mechanical Engineers had an indelible mark that it was brought back again for fostering innovations and pushing boundaries in Engineering . It targets not only Mechanical Engineering students but also benefits the students of other Departments.



On 26 July 2024, the Department of Mechanical Engineering launched a student club named NATIONAL INSTITUTION OF QUALITY AND REALIABILITY (NIQR).



On 26 of July 2024, the Department of Mechanical Engineering launched a student club named INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)



SAEINBIA

On 26 July 2024, the Department of Mechanical Engineering launched a student club called SOCIETY OF AUTOMOTIVE ENGINEERS (SAE). SAE creates technical standards and recommended practices for the design, construction, and characteristics of motor vehicles. These standards are used to improve safety, productivity, dependability, efficiency, and certification.



On 26 of July 2024, the Department of Mechanical Engineering launched a student club called THE INSTITUTEOFINDIANFOUNDRYMEN (IIF). IIF is used to promote education, research, training and development to Indian foundrymen.

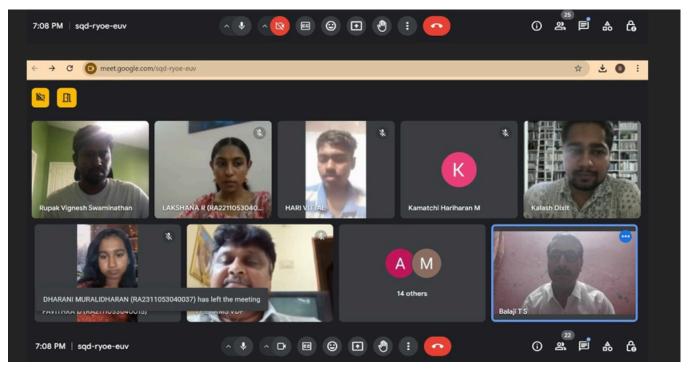
EVENTS

2024 - 2025 ODD SEMESTER

GLOBAL PERSPECTIVE

ONLINE SEMINAR 08 - 08 - 2024

ALUMNI INSIGHTS SEMESTER ABROAD PROGRAM



On the 8th of August 2024 , the Department of Mechanical Engineering conducted an online seminar about the "Student Abroad Program" with our proud alumni's , Mr.S.Rupak Vignesh (2010-2014 ECE) and Mr.S.Kalash Dixit (2015-2019 MECH).

offers students The Semester Abroad Program (SAP) opportunities to study in foreign countries for one different provides a chance to experience semester. Ιt cultures, educational systems, and languages while earning academic credits. The benefits include enhanced cultural awareness, global networking opportunities, and personal growth through exposure to diverse perspectives.

SAP ORIENTATION PROGRAM

On the 6th of August 2024, an orientation program was held in SRMIST VDP. Interested II and III year students of all four core departments participated in the session.

Mr. Solomon and Ms. Veena from the office of International Relations, SRMIST KTR addressed the students.

Students were guided with the information related to various global

opportunities like SAP, 2+2, Pathway programs and so on.





SONAR SENSOR TECHNOLOGY WORKSHOP

ORGANIZED BY BAROLA TECHNOLOGIES



The participants were explored to :

- 1. Introduction to Ultrasonic Sensor Technology
- 2. Principles of Sonar Sensing and Applications
- 3. Hands-on Session: BuildingUltrasonic Sensor-BasedSystems

Practical session: Designing and implementing systems using ultrasonic sensors.

Integration with microcontrollers: Coding and data processing.

The Mechanical Department of Engineering , SRMIST VDP campus in collaboration with Barola technologies organized "ORIENTATION an **INTERNSHIP MODULE ABOUT** INTEGRATED Engineering **SOLUTIONS** WITH SONAR SENSOR TECHNOLOGY" on 02.08.2024.

This workshop facilitated the students to learn to design and implement he systems with ultrasonic sensors for integrated Engineering applications, focusing on principles, integration and data processing across various Engineering



CATIA DESIGN WORKSHOP



The Department of Mechanical Engineering , SRMISTVDP organised an one day hands-on training workshop on CATIA Design Software for Third year Mechanical Engineering students on 18.09.2024.

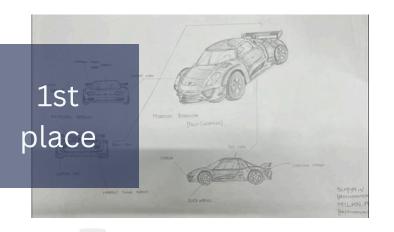
The sessions were handled by Mr. Balaji, Head - Business Development & Mr. Mohammed Rafeeq, Director - Technical from CADD INDIA Research and Development, Chennai

Students were trained to basic commands to be used in CATIA software and followed by Hands on Training in CATIA software for 3D models drawing.

Event coordinator - Dr Kamatchi Hariharan M - AP / Mechanical Engineering

AUTOMOBILE REMODIFICATION

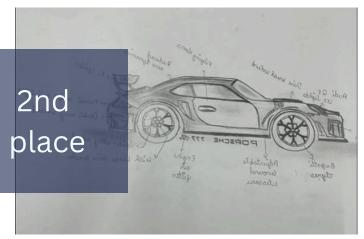
"ASSOCIATION OF MECHANICAL ENGINEERS"



The Department of Mechanical Engineering organised an interdepartmental competition 'Automobile Re-Modification' under the aegis of Association of Mechanical Engineers on 30 August 2024.

Participants were given three car models out of which, one can be chosen and exterior remodifications can be done. The best three designs were awarded with a cash prize. Every participant received a design certificate which can be added to their resume.

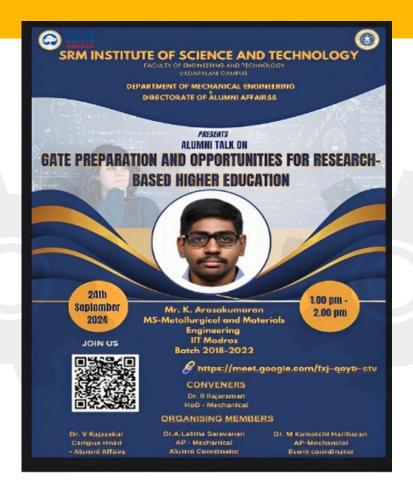




Student Coordinator : Stephanie Thompson Faulty Coordinator : Mrs. P Aruna Rani

GATE PREPARATION

ALUMNI TALK



The Department of Mechanical Engineering and the Directorate of Alumni Affairs organised an alumni talk on "GATE preparation and opportunities for research-based higher education".

The Alumni of SRM VDP MECH - Mr. K.Arasakumaran of 2018-2022 batch who has recently completed M.S.- Metallurgical and Materials Engineering from IIT Madras has addressed the students.

The alumni talk covered some important topics such as: NPTEL GATE Portal, GATE Papers, Tips for GATE preparation, Opportunities after GATE, Higher Studies in India, Research culture

Coordinators:

- 1. Dr A. Lalitha Saravanan
- 2. Dr M. Kamatchi Hariharan

13 - 10 - 2024 13 EDITION



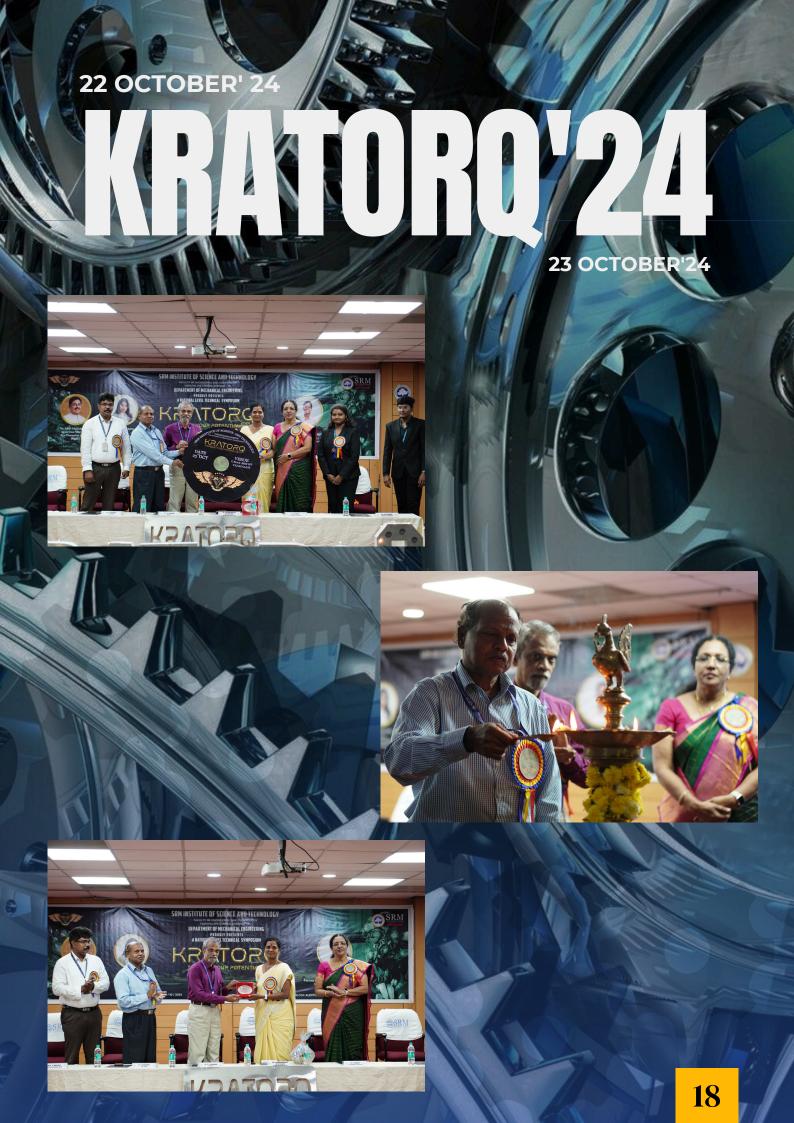
The Department of Mechanical Engineering in collaboration with the Association of Mechanical Engineers, proudly hosted the 13th edition of the National Level Technical Symposium, KRATORQ'24 on the 13th October 2024.

Mrs. Lakshmi Umapathy, Factory Manager of Caterpillar India Pvt. Ltd was the honorable chief guest for the event.

From the technical presentations, non technical maze runners to exciting gaming events, KRATORQ'24 offered a diverse range of activities that inspired creativity and strengthened bonds within the Engineering community.

We're happy to announce that KRATORQ'24 was a successful symposium.













Y2024

GLOBAL GOALS: OUR INNOVATION EXPO



The Department of Mechanical Engineering organised a project competition on Sustainable Development Goals (SDG) called "Y2024" under the aegis of Indian Society For Technical Education on 7th November 2024.

The competition will provide a platform for students to showcase their creativity and research skills by developing projects aligned with one or more of the 17 SDGs. We believe this is an excellent opportunity to foster critical thinking and problem-solving skills while raising awareness about global challenges.

This competition was opened to school students from classes VI - XII.

Faculty Coordinators : Dr. Haja Syeddu Masooth P

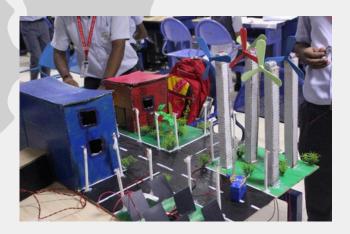
Dr. Kamatchi Hariharan M













INDUSTRIAL VISITS

2024

ADANI PORT

KATTUPALLI SRIPERUMBUDUR FAURESIA EMISSION CONTROL **MYSORE**

KAYNES TECHNOLOGY



KATTUPALLI ADANI PORT

An industrial visit to Adani Port, Kattupalli was organized for the second year Mechanical Engineering students . Faculty members Dr. R. Rajaraman (Professor & Head), Dr. Kamatchi Hariharan M, Mrs. P. Arunarani (Assistant Professors) accompanied the students during the visit.

The students were guided by Mr. Praveen Kumar - Project officer - Adani Ports.

He had explained the various processes in the Port operations like cargos booking, scheduling, scanning, handling, packing & Dispatch, Customs etc.

FAURECIA EMISSION CONTROL SRIPERUMBUDUR

The Department of Mechanical Engineering organized an industrial visit to Faurecia Emissions Control Technologies India Pvt. Limited (Forvia), Sriperumbudur, Chennai on 14.08.2024. Second year Mechanical Engineering students have participated in the event.

Faculty members Mr.R.A.Arul Raja & Dr.Kamatchi Hariharan M (Assistant Professors) accompanied the students during the visit.

The students were guided by Mr. JAFFER SATHIK (Manager - Forvia).

Initially, he explained about the background of the company and mandatory safety practices to be followed in the company.

The students were able to witness the various processes like Designing, Analyzing, Prototyping, Manufacturing in the Faurecia Emissions Control Technologies India Pvt. Limited.



EDUCATIONAL TOUR

KAYNES TECHNOLOGY, MYSORE

The Department of Mechanical Engineering, SRM IST, Vadapalani campus had organized an educational tour to Bangalore, Mysore from 26.09.2024 to 28.09.2024 for third year Mechanical Engineering students.

Faculty members Dr. Haja
Syeddu Masooth P & Dr.
Kamatchi Hariharan M
(Assistant Professor)
accompanied the students
during the tour.

During the tour, all students visited the company KAYNES TECHNOLOGY India Limited, MYSORE (Manufacturers of electronic components).





KATTUPALLI ADANI PORT

An industrial visit to Adani Port, Kattupalli was organized for the third year Mechanical Engineering students . Faculty members Dr. R. Rajaraman (Professor & Head), Dr. Kamatchi Hariharan M, Mrs. P. Arunarani (Assistant Professors) accompanied the students during the visit.

The students were guided by Mr. Praveen Kumar - Project officer - Adani Ports.

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CHAMPIONS OF MECHANICAL DEPARTMENT

STUDENT TRIUMPHS

RUSH CHAMPIONSHIP RCI (TTT)



RUSH BICYCLING CHAMPIONSHIP



Our second year Mechanical Engineering w/s in AIML student Mr. Tharun Krishna participated and won in Rush Bicycling Championship Season 2023-24 held at ECR.

Tharun Krishna Achievements in the Rush Bicycling Championship Season 2023-2024

- 1. Secured 1st runner-up in the Under-18 category of the Rush Bicycling Championship season 2023-2024, scoring 14 points over five races.
- 2. Individual Time Trial secured 2nd place.
- 3. Road Race Secured 3rd position.
- 4. Relay Race Tharun and his team won 1st place.

CONGRATULATIONS
THARUN KRISHNA

DISTRICT ROAD CYCLING CHAMPIONSHIP



THARUN KRISHNA



Tharun Krishna M. a 2nd-year Mechanical Engineering (AI/ML) student at SRMIST, Vadapalani, showcased his talent at the District Road Cycling Championship held in Chennai on 24th August 2024. Competing in the 28 km Individual Time Trial (ITT) under the U23 category. Mr. Tharun represented Tiruvallur District, securing 1st place in his category and 2nd place overall among participants from Chennai, and Tiruvallur Kanchipuram, districts.

His outstanding performance has earned him a spot in the upcoming State Championship.

KARATE KUMITE EVENT



Our 1st Year Mechanical Engineering w/s in AIML student, Mithran M, from SRMIST Vadapalani Campus, has secured the Second Position with Trophy in the Karate (Kumite) event!

The State level Karate competition was held on 20th October 2024 at SRMIST Vadapalani, Chennai, and Mithran's outstanding performance and dedication truly shone through. We are incredibly proud of his achievement and look forward to seeing him continue to excel both in academics and sports!

ARM WRESTLING CHAMPIONSHIP



BARATH M from 3rd Year MECH A, SRMIST VDP bagged GOLD IN 75KG YOUTH CATEGORY RIGHT HAND AND SILVER IN 75KG YOUTH CATEGORY LEFT HAND at Chennai & Chengalpattu District Arm Wrestling Championship 2024-25 which held on 24th November 2024 at Nexus Vijaya Mall, Vadapalani, Chennai organized by Chennai District Arm Wrestling Association under the aegis of The Tamil Nadu Arm Wrestling Association.

CONGRATULATIONS BARATH

AI FOR BEGINNERS



Certificate of Completion

Stephanie Thompson

has successfully completed the HP LIFE online course

Al for Beginners

By completing this course, the above-named student has gained a basic understanding of the impact of artificial intelligence (AI) on the technological landscape. They have learned about key AI concepts and their applications, discovered why data is important to AI, how the technology is being used in businesses, and gained an insight into its ethical implications.

Presented 12/17/2024

- YOKE

Stephanie Bormann Deputy Director, HP Foundation

HP LIFE

Stephanie Thompson from the Department of Mechanical Engineering with AIML specialization (second year) received a certificate on AI FOR BEGINNERS from HP LIFE.

CONGRATULATIONS
STEPHANIE THOMPSON

PRESTIGIOUS SAE CHAIRMAN AWARD



Third Year Mechanical Engineering w/s AIML student, V S Thanushri from SRMIST Vadapalani Campus, received the prestigious Chairman's Award at the SAE India Southern Section Awards!

CONGRATULATIONS
THANUSHRI

NPTEL CERTIFICATE HOLDERS



The Department of Mechanical Engineering is very proud to honor the NPTEL certificate holders of Second year Mechanical Engineering .

Your dedication and hardwork in courses like Product Design and Development, Manufacturing Processes, Robotics and Python for data science have set a benchmark for excellence.

We look forward to see you reach greater heights.

RANK HOLDER



FIRST RANK

MONESH KUMAR (RA2011002040018) from B.Tech Mechanical – AIML secured first rank with 9.27 CGPA.

KARTHIK S (RA2011054040003) from B.Tech Mechanical secured second rank with 9.29 CGPA.

PLACEMENTS



SHANMUGAM G- RA2111002040006 - IV year B.Tech Mechanical Engineering student has been placed in Varroc Engineering limited for a CTC of 11.05 LPA

PLACEMENTS



AVINASH KUMAR - RA2111002040006 - IV year B.Tech Mechanical Engineering student has been placed in Torrent Gas as Graduate Engineering Trainee for a CTC of 5.1 LPA

PLACEMENTS



M H SREEKATH, FARAAZ CASSIM N and KARANAM CHARANSAI of IV year B.Tech Mechanical Engineering have been placed in Mind sprint for a CTC of 5.2 LPA

STUDENT ACHIEVEMENTS

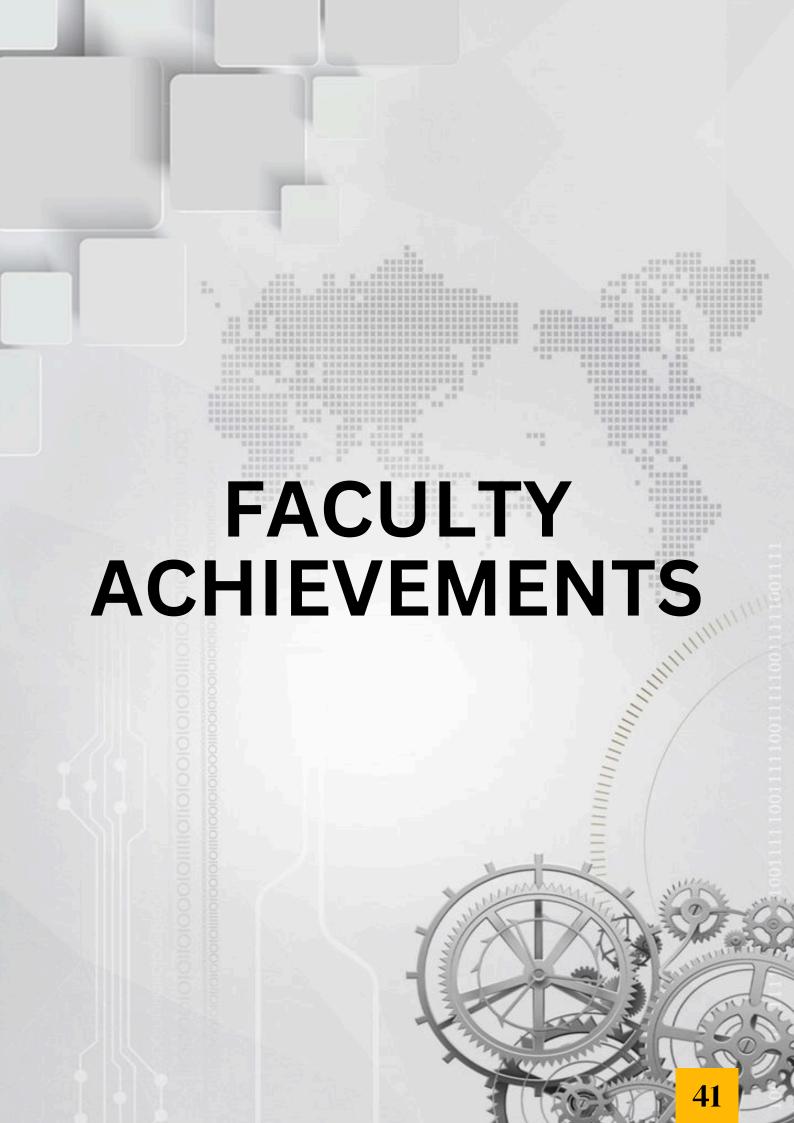
2ND - 4TH YEAR 2024-2025

PERFORMANCE BASED SCHOLARSHIP

The Department is very happy to announce that the following students have been granted scholarship for the year 2023 - 2024 based on their university exam performance:

- Aris kaif (II yr Mechanical AIML)
- M Divya Maya (III yr Mechanical AIML)
- Dhiraj Venkatesan (III yr Mechanical AIML)
- Gowtham E (III yr Mechanical AIML)
- Harihara Subramanian (IV yr Mechanical)
- Sricharan R S (IV yr Mechanical AIML)

Congratulations to all. Keep continuing the good work.

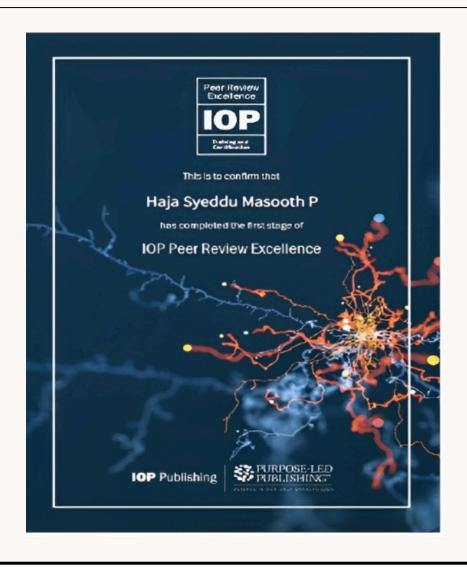


UHV CERTIFICATE



Dr. R. Rajaraman - Professor & Head, Mechanical Engineering has completed one week UHV- II (Universal Human Values) FDP at KTR campus from 01.10.2024 to 05.10.2024

REVIEWER



Dr.HAJA SYEDDU MASOOTH P - Assistant Professor (S.G)/ Mechanical Engineering has received the reviewer certificate for completing the first stage of peer review in IOP publishing.

SUSTAINABLE RECYCLING PATENT



Dr.M Kamatchi Hariharan Asst Professor (S.G) has filed and published a patent titled "SUSTAINABLE RECYCLING TECHNOLOGIES FOR LITHIUM, NICKEL, AND COBALT IN ELECTRIC VEHICLE BATTERY LIFE-CYCLE MANAGEMENT"

SOLAR POWER IRRIGATION PATENT



Dr P HAJA SYEDDU MASOOTH, AP/ Mechanical Engineering has filed a patent application titled "Solar Power Irrigation system with IOT based moisture monitoring"

NPTEL BELIEVER MOTIVATED LEARNER



Mr R Gowri Manohar, AP/ Mechanical Engineering has received NPTEL - Motivated Learner and NPTEL Believer certificates for the period July - Dec 2024

MOTIVATED LEARNER



Dr P HAJA SYEDDU MASOOTH, AP/ Mechanical Engineering has received NPTEL - Motivated Learner certificate for the period July - Dec 2024

MENTOR CERTIFICATE



Dr M Kamatchi Hariharan , AP /Mechanical has received Certificate of Appreciation – Mentor Certificates for two courses Product Design and Development & Manufacturing Processes Casting and Joining

METAL ADDITIVE MANUFACTURING



Dr.Anbarasu K G – Assistant Professor / Mechanical Engineering has completed the NPTEL online course "Metal Additive Manufacturing" with elite certification and secured a Silver Medal.

ACCELERATION & OUTCOME BASED LEARNING



Dr. Lalitha Saravanan A – Assistant Professor / Mechanical Engineering has completed the NPTEL online course "Accreditation and Outcome Based Learning" with elite certification and secured a Silver Medal.

AUTOMATION IN MANUFACTURING



Dr. HAJA SYEDDU MASOOTH P – Assistant Professor (S.G) / Mechanical Engineering has completed the NPTEL online course "Automation in Manufacturing" with elite certification and secured a Silver Medal.

METAL ADDITIVE MANUFACTURING



Dr. HAJA SYEDDU MASOOTH P - Assistant Professor (S.G) / Mechanical Engineering has completed the NPTEL online course "Metal Additive Manufacturing " with elite certification and secured a Silver Medal.

FACULTY PUBLICATIONS

- 1. GOWRI MANOHAR R, Dr R RAJARAMAN (2024). Exploratory data analysis & EDS analysis on tool chip adhesion under dry and nano minimum quantity lubrication machining environment. Materials Research Express.
- 2. An Investigation into the Design and Analysis of the Front Frame Bumper with Dynamic Load Impact B. Gowthama Rajan 1, S. Padmanabhan 2, Devendra Gautam 3, Feroja Khan 4, S. Baskar 5, A. Lalitha Saravanan 6 and Abhishek Sharma 7
- 3. Investigation and Optimization of Electrical Discharge Machining Parameters on SS316L Ravikumar, Ganeshan, <u>Kamatchi hariharan M</u>, Advances in Additive Manufacturing Technologies Gurusamy Pathinettampadian (eds)
- 4. <u>Arul Raja R. A.</u> and Bhanodaya Reddy G. (2024), Exploring the novel environmentally friendly dye degradation mechanism of NiOPolypyrrole polymer nanocomposites in degrading the organic pollutants under sunlight, 26(6), 06240. Global NEST Journal, Vol 26, No 6, 06240 Copyright© 2024 Global NEST Printed in Greece.

FACULTY PUBLICATIONS

5. P. Shanmugavalli, R. Rajaraman, Sustainable Futures with Paraffin Wax Balls: Advancements in Thermal Energy Storage, International Research Journal of Education and Technology, Peer Reviewed Journal, ISSN 2581-7795, INTERNATIONAL CONFERENCE ON CORE Engineering AND TECHNOLOGY '2024 (ICCET'24), PERI INSTITUTE OF TECHNOLOGY, CHENNAI-48; ISBN: 978-93-340-4983-1 © 2024, IRJEdT Volume: 06 Issue: 06 | June-2024 - UGC Indexed

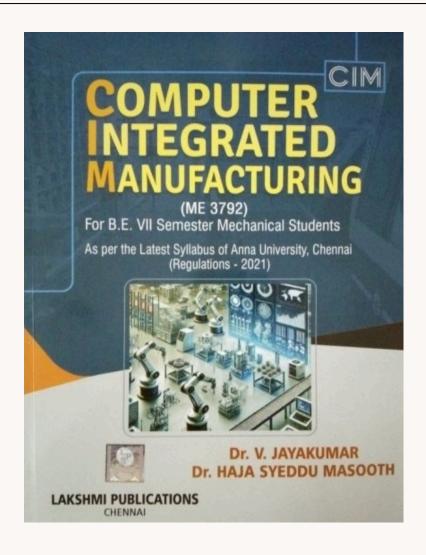
6. Influence of HSS drill coatings on surface finish and cylindricity of AA6061/C/ZrO2 composite in CNC drilling operations under dry conditions, <u>Haja Syeddu Masooth</u> P,Jayakumar V, Bharathiraja G and Keno Teshome Mekonnin - Mater. Res. Express 11 (2024) 096505

FACULTY PUBLICATIONS

7. <u>Sadagoparaman Karthikeyan</u>, Ramalingam Velraj, Ramalingam Senthil, Overview of numerical, experimental and parametric studies on the spherical container-based packed bed latent heat storage, Journal of Energy Storage, Volume 102, Part A, 2024, 114089, ISSN 2352-152X

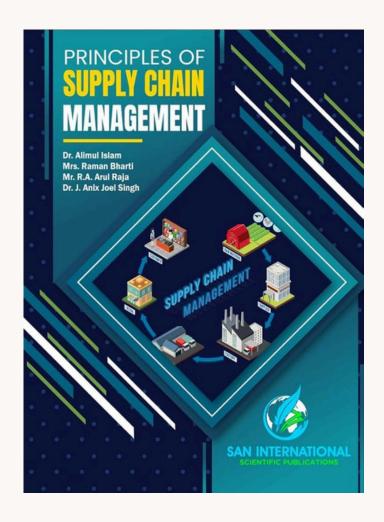
8. Padmanabhan, Ch.Siva Ramakrishna, A. Lalitha Saravanan, Ramesh Bokde, S.Venugopal, V. Manikkavasagam and Krishna Kant Pandey 2024 'Investigation of Turning Parameters on AL7075 Alloy Reinforcement with Silicon Carbide for a Surface Roughness of Composite Material', Recent Advancements in Product Design and Manufacturing Systems, IPDIMS 2023. Lecture Notes in Mechanical Engineering , Springer, Singapore, pp.325-338, ISSN: 2195-4356, (Impact Factor: 0.47).

COMPUTER INTEGRATED MANUFACTURING



Dr P Haja Syeddu Masooth, Assistant Professor (S.G) / Mechanical Engineering has co authored a text book "Computer Integrated Manufacturing" for VII semester Mechanical Engineering . ISBN : 978-81-977971-5-6

PRINCIPLES OF SUPPLY CHAIN MANAGEMENT



Mr.R.A.Arul Raja - has authored a book in the title "Principles of Supply Chain Management" - SAN International -Scientific Publications with ISBN: 978-81-978738-2-9

EDITORIAL BOARD



Dr. M KAMATCHI HARIHARAN ASSISTANT PROFESSOR Mechanical Engineering



Dr. HAJA SYEDDU MASOOTH P ASSISTANT PROFESSOR Mechanical Engineering



STEPHANIE THOMPSON
Second Year
Mechanical-AIML