



MECHRONICIE

Department of Mechanical Engineering **NEWSLETTER**



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2024 - 2025 EVEN SEMESTER



HOD'S MESSAGE



It gives me great pleasure to present the 10th volume of Mechronicle, our department's bi-annual e-magazine. This landmark edition reflects a decade of continuous growth, innovation, and the collaborative efforts of our vibrant Mechanical Engineering community.

Over the years, Mechronicle has evolved into more than just a magazine — it is a chronicle of our journey, a canvas for creativity, and a showcase of academic and co-curricular excellence. Volume 10 brings together insightful technical articles, research contributions, creative works, and a recap of departmental events, all of which highlight the energy and commitment of our students and faculty.

As we celebrate this milestone, we also look to the future with ambition and purpose.

Our goals in the coming years include:

- Strengthening industry-academia collaborations to enhance practical learning and research opportunities.
- Promoting student-led innovation through funded projects, start-up incubation, and interdisciplinary work.
- Expanding our research footprint by encouraging publications in high-impact journals and participating in global conferences.
- Enhancing skill development through workshops, certification programs, and hands-on training in emerging technologies like Al in manufacturing, sustainable energy, and smart systems.
- Fostering a culture of social responsibility and community engagement through outreach and technical service initiatives.

I extend my heartfelt congratulations to the editorial team and all contributors who have made this edition special. Let us continue to strive together towards excellence, creativity, and a future rich with opportunities and impact.

Dr. R. Rajaraman
Professor & Head
Department of Mechanical Engineering



EVENTS

< FUELING MINDS - FORGING FUTURE >

- > INTRODUCTION TO DRONES WORKSHOP
- > NC-ARMS'25
- > DATA ANALYTICS TRAINING
- > MECH TREK TECH FEST
- > ALUMNI TALK
- > FUSION 360 WORKSHOP

INTRODUCTION TO DRONES ONE DAY WORKSHOP



The Department of Mechanical Engineering, SRM IST, Vadapalani Campus, successfully organized a one day pre-conference workshop on "Introduction to Drones Technology" on 20.03.2025.

The Special guest for the workshop was Mr. M. Yuvaraj, CEO & Proprietor of Skyrider Aero Solutions, Chennai.

Workshop Highlights:

- Introduction to Drones and their applications.
- Understanding DGCA regulations for flying drones.
- Guidelines & procedures for acquiring a Drone License.



NCARMS ' 2025 NATIONAL CONFERENCE



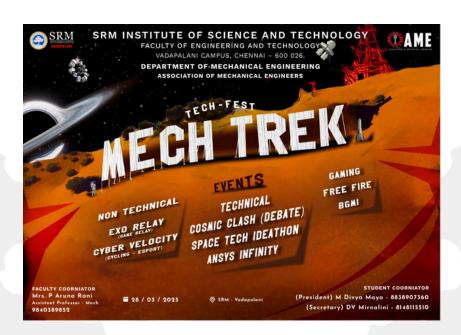
The Department of Mechanical Engineering at SRMIST, Vadapalani Campus, successfully hosted ARMS 2025, a National Conference on 21.03.2025, that brought together academicians, industry professionals, researchers, and students to explore recent advancements in Mechanical Engineering.

Key Highlights:

- -Shri. Srinivasa Rao Tatineni, COO, Foundry Division, Madras Engineering Industries Pvt. Ltd., delivered the inaugural address on sustainable manufacturing and carbon neutrality.
- -Shri. R. Palani Murugan, Vice Chairman, IIF, shared insights on career opportunities in the foundry sector.

With over 50 research papers presented, the conference encouraged active knowledge exchange and collaboration for future innovations

MECHTREK'25 FIRST EDITION TECHNICAL FEST OF AME



The Department of Mechanical Engineering, SRMIST, Vadapalani, proudly hosted the 1st Edition of MECH TREK 2025 on March 28, 2025, uniting young minds to explore emerging tech trends.

Highlights:

Mr. Ramesh Chinnaraju spoke on Generative AI, IoT in machine control, and career perseverance.

Mr. Christopher Shakespeare discussed Al's impact on Mechanical Engineering and urged students to lead and innovate.

Glimpses of Mech Trek









DATA ANALYTICS FOR MANUFACTURING TVS TRAINING AND SERVICES



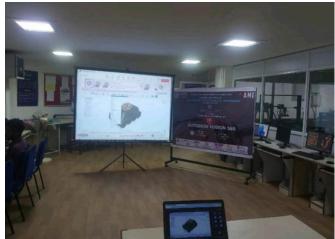
A five-day industrial training program on Data Analytics for Manufacturing was held in collaboration with TVS Training and Services, Ambattur, from 17th to 21st February 2025.

Second-year Mechanical Engineering students gained hands-on exposure to production monitoring, inventory management, demand-supply analysis, and smart manufacturing. The program highlighted the role of data driven decision-making in enhancing productivity and aligning with Industry 4.0 practices.

FUSION 360 - 3 DAYS WORKSHOP

ICT ACADEMY - AUTODESK FUSION 360





The Department of Mechanical Engineering, SRMIST Vadapalani, in collaboration with ICT Academy, conducted a workshop on Autodesk Fusion 360, focusing on advanced design techniques and real-world applications on 28th of January, 14th of February & 17th of March, 2025.

Participants learned 3D modelling, parametric and assembly design, simulation, and rendering. A hands-on design challenge enabled them to apply concepts to practical components, promoting creative thinking and problem-solving using Fusion 360 tools.

ALUMNI TALK - MR. VIGNESH RAJA (BATCH 2010–2014)





The Department of Mechanical Engineering conducted an insightful Alumni Talk on 7th February 2025, titled "From Classroom to Career: Journey of Mechanical Engineering".

Mr. Vignesh Raja (Batch of 2010–2014), Assistant Lead Engineer at Vestas India, shared his professional journey, offering practical advice on transitioning from academics to industry. He highlighted the value of continuous learning, adaptability, and staying updated with evolving technologies.

The session saw enthusiastic student participation, especially during the interactive Q&A on careers and internships.

The event was well-coordinated by Dr. A. Lalitha Saravanan and Dr. P. Haja Syeddu Masooth.



INDUSTRIAL VISITS

< A WALK THROUGH THE WORLD OF MACHINES >

- > VSSC ISRO TRIVANDRUM
- > INTEGRAL COACH FACTORY
- > ADANI PORTS
- > TVS TRAINING & SERVICES

VSSC - ISRO TRIVANDRUM 2 DAY EDUCATIONAL TOUR





The Department of Mechanical Engineering, SRM IST, Vadapalani Campus, organized an exciting two-day educational tour to the Vikram Sarabhai Space Centre (VSSC), ISRO, Trivandrum on April 4, 2025.

Third-year Mechanical Engineering students got an up-close look at India's space technology through detailed models of satellites, GSLVs, and PSLVs.

An interactive session by VSSC officials on "Opportunities for Mechanical Engineers at ISRO" gave students valuable insights into careers in space research and innovation.

The visit offered a blend of learning and inspiration, leaving a lasting impact on aspiring engineers.

INTEGRAL COACH FACTORY



On 18th February 2025, first-year Mechanical Engineering students visited the Integral Coach Factory (ICF), Chennai, gaining valuable insights into large-scale coach manufacturing.



The visit included a tour of the ICF Museum, Coach Shell Manufacturing Bay, and Assembly Bay. Students observed real-world applications of Mechanical Engineering, from fabrication to final assembly of railway coaches.

Faculty members Mr. Gowri Manohar R and Mr. N. Dinakar accompanied the students, with coordination support from Dr. Kamatchi Hariharan M.

ADANI PORTS KATTUPALLI



The Department of Mechanical Engineering organized an educational industrial visit to Adani Ports, Kattupalli, on 12th February 2025. First-year Mechanical Engineering students gained valuable insights into port operations and logistics management during this visit.

The session was led by Mr. Praveen Kumar, Project Officer at Adani Ports, who explained key operational aspects such as cargo booking and scheduling, the use of Al-enabled scanning systems for container handling, safety standards at the liquid terminal, packing and dispatch logistics, and customs clearance procedures.

Faculty members Mr. Gowri Manohar R and Mrs. P. Arunarani accompanied the students, ensuring a guided and interactive experience. The visit was successfully coordinated by Dr. Kamatchi Hariharan M, who played a vital role in facilitating this real-world learning opportunity for the students.

TVS INDUSTRIAL VISIT AMBATTUR



It included a technical session Hydraulics, Pneumatics, Design, offering and PLC insights into real world applications of classroom concepts. Students also toured various lab facilities to understand industry-grade equipment and operations. The visit concluded with an informative session on the assembly process of electric two-wheelers and fourwheelers.

First-year Mechanical Engineering students of SRMIST Vadapalani Campus had the opportunity to participate in an industrial visit to TVS Training and Services Ltd., Ambattur, Chennai, on 04.02.2025. The visit provided students with practical exposure to key engineering domains.



This visit was an enriching experience aimed at bridging academic learning with industrial practices, in line with the objectives of the Skill India initiative.



UNIVERSITY RANK HOLDERS

< CROWNED WITH EXCELLENCE , DEFINED BY DEDICATION >

UNIVERSITY FIRST RANK HOLDER SHRICHARAN RS (2021–25)



Heartiest congratulations to Shri Charan R.S. for securing an outstanding CGPA of 9.84 and emerging as the FIRST RANK HOLDER of the Mechanical Engineering (AI & ML) stream! Your dedication and excellence have truly set a benchmark — well done and best wishes for all your future endeavors!

UNIVERSITY RANK HOLDERS

B.Tech - PART TIME



Heartiest congratulations to Alluri Deepak for securing 9.76 CGPA, Karthik P for securing 9.74 CGPA and Vengatesh T for securing 9.70 CGPA emerging as the rank holders of the Mechanical Engineering Department (Part Time). Your dedication and excellence have truly set a benchmark — well done and best wishes for all your future endeavors!



ACADEMIC ACHIEVEMENTS

< ACADEMIC POWERHOUSES, WITH THE PRECISION OF A PISTON >

ARIS KAIF SECURES 10 SGPA FOURTH SEMESTER



Aris Kaif, a 2nd Year Mechanical - AIML student from SRM Institute of Science and Technology, Vadapalani Campus, has secured a perfect 10 SGPA in his 4th semester.

His consistent academic performance continues to set a standard for excellence.

PRATEEK K SECURES 10 CGPA SECOND SEMESTER



Prateek K, a 1st Year Mechanical-AIML student from SRM Institute of Science and Technology, Vadapalani Campus, has secured a perfect 10 SGPA in his 2nd semester!

Your hard work, dedication, and perseverance are truly commendable.



NPTEL ACHIEVEMENTS

< CERTIFIED BY KNOWLEDGE, RECOGNIZED BY NPTEL >

NPTEL CERTIFICATE OF APPRECIATION B SAI NIVEDA LAKSHMI



B Sai Niveda Lakshmi, a 3rd-year Mechanical Engineering student from SRMIST, Vadapalani Campus, has been recognized as an NPTEL Motivated Learner for the Jan-Apr 2025 semester.

This recognition from NPTEL & IIT Madras means a lot - it acknowledges consistency, commitment, and the drive to keep learning. Hard work, dedication, and a passion for learning truly pay off.

NPTEL GOLD MEDAL B SAI NIVEDA LAKSHMI



B Sai Niveda Lakshmi, A 3rd year Mechanical Engineering student from SRMIST Vadapalani Campus, has successfully completed the Design Practice course offered by NPTEL with an Elite certification. She has also been Certified as Top performer of this subject during the period of January to March 2025.

NPTEL ELITE CERTIFICATE DIVYA MAYA M



Divya Maya M from 3rd Year Mechanical-AIML has successfully completed Python for Data Science course in NPTEL and has received an ELITE certificate during the period of January to February 2025. We are happy to honor her certification.

NPTEL STUDENT ACHIEVEMENT



Congratulations to all the students who have successfully completed a course and received a NPTEL certificate. Keep learning!



INTERNSHIP COMPLETION

< FROM CAMPUS TO CORPORATE</p>
- SUCCESSFULLY INTERNED >

INTERNSHIP COMPLETION

The following students have successfully completed an internship in the following companies.

Internship	Student Name
Prodigy Infotech	M Divya Maya, 3rd Year Mechanical-AIML
Audi Chennai	Ranjith TM, 2nd Year Mechanical-AIML
Hydraulics & Automation, Coimbatore	Tejaswini VA, 1st Year Mechanical-AIML
Honda Chennai	Ranjith TM, 2nd Year Mechanical-AIML



STUDENT ACHIEVEMENS

< CRUSHING LIMITS - ONE GEAR AT A TIME >

TAMIL NADU CYCLING LEAGUE THARUN KRISHNA – 1ST RUNNER-UP



Μ, Tharun Krishna а 2nd-year Mechanical Engineering (AIML) student at SRMIST, Vadapalani, excelled in Season 3 of the Tamil Nadu Cycling League, contributing to his team's 1st Runner-Up finish with 54 points. The intense final race was held on Sunday, 8th June 2025, at the iconic Napier Bridge Island Ground loops, Chennai, where Tharun and his teammates competed fiercely against top cyclists from across the state in a highly strategic and thrilling contest.

The event was organized by the Sports Development Authority of Tamil Nadu (SDAT) and was graced by esteemed dignitaries:

Maninder Pal Singh, Secretary General, Cycling Federation of India

Meganatha Reddy, IAS, Member Secretary, SDAT M. Sudhakar, President, Tamil Nadu Cycling Association

A proud moment for SRMIST Vadapalani as Tharun continues to excel both academically and athletically.



DIVYA MAYA FROM TEAM TAARANG "SECURED FIRST PLACE"



Team Taarang emerged as the 1st Place Winners in the Above 17 Trio Category at the prestigious Rudra Natyalaya Bharatanatyam Competition, held at Vaels International School on 29th June 2025!

Outshining 50+ talented teams, this incredible trio impressed the judges with their precision, expressive artistry, and deep devotion to the classical dance form of Bharatanatyam.

The Winning Trio:

M Divya Maya - Mechanical Engineering (AIML), 4th Year K Sree Matangi - CSBS, 4th Year Dhersheni M - CSBS, 3rd Year

A proud moment for SRM Vadapalani and for Taarang, as they continue to raise the bar in cultural excellence. Keep dancing, keep inspiring.

INTER-COLLEGE BASKETBALL TOURNAMENT SECURED 4TH PLACE



The SRMIST Vadapalani Men's Basketball Team delivered an outstanding performance in the Inter-Collegiate Basketball Tournament held at New Prince Shri Bhavani College of Engineering and Technology on 19th March 2025, securing 4th place after a series of intense battles on the court.

Semi-Final Showdown: In a dramatic turn of events, we faced Anna University in the semi-finals

Kiran Babu T from 3rd year Mechanical was also a part of this esteemed team.

INDIA DESIGN WEEK 2025 - AUTODESK 24 HOUR IDEATHON



D. V. Mirnalini, S. Gurudeva, Aris Kaif U, RS Rohit, Prateeksha Sahoo, and Stephanie Thompson proudly represented their institution at India Design Week, organized by Autodesk x ICT Academy on 28th January 2025, which was hosted in Sai Ram Engineering College, Chennai.

The students took on the exciting challenge of designing a rehabilitation robot within 24 hours using Fusion 360 software. They were guided and mentored throughout the event by Dr. P. Haja Syeddu Masooth.

ACCOLADES EARNED BY STUDENTS

We are proud to acknowledge the following students for completing their respective courses and earning certifications.

Student Name	Certificate Received
Stephanie Thompson (2nd Year Mechanical-AIML)	3D Printing – HP Life
Stephanie Thompson (2nd Year Mechanical-AIML)	Training a New Model – Infosys Springboard
Rufina S A (2nd Year Mechanical-AIML)	Al for Beginners & Data Science and Analytics – HP Life
Kamalesh G (1st Year Mechanical-AIML)	Machine Learning & Deep Learning – Mathworks Onramp
DV Mirnalini (3rd Year Mechanical-AIML)	Introduction to ML – Infosys Springboard
Dakshitha S (1st Year Mechanical-AIML)	Prompt Engineering for ChatGPT – Great Learning

TN STATE ROCK CLASSIC CHAMPIONSHIP SHREE VARSAN S



Shree Varsan S, a 3rd Year Mechanical Engineering student, brought pride to the department by securing 6th place in two competitive categories at the Tamil Nadu State Rock Classic 2025 Championship, held on April 27, 2025:

- Bodybuilding 75 kg category
- Men's Physique category

Organized by the South Asia & Indian Bodybuilders Association, this prestigious event highlights his commitment to fitness, discipline, and all-round excellence.

HACKFEST TRIUMPH

TEAM TECH-WARRIORS



Mithran.M, Gnaneshwar.B, Surya.P.C, Dakshitha.S, and Tejaswini.V.A from 1st Year Mechanical Engineering made the department proud by securing the 2nd Prize at Hackfest 2K25, hosted by M. Kumarasamy College of Engineering, Karur on 20 and 21st Febrary 2025.

Their innovative approach and technical skills stood out among competing teams, earning them a cash award of ₹25,000. Competing under the team name Tech Warriors, they showcased remarkable creativity, teamwork, and problem-solving abilities. We congratulate the team on this outstanding achievement and wish them continued success in future endeavors.

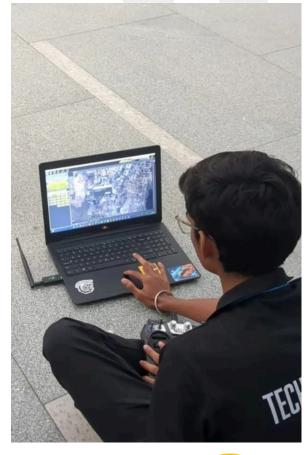
SUSTAINATHON 2025 TEAM GARUDA



We are proud to share that First-Year Mechanical our Engineering students-Mithran M, Gnaneshwar B, and Surva P C—together known as Team Garuda, have secured First Place in Track 3 the prestigious at Sustainathon 2025, hosted by VIT Chennai Campus on 20 & 21st Jan 2025

Their outstanding performance, driven bv innovation. collaborative effort, and a deep commitment to sustainability, set apart in them highly а competitive field. The team's creative approach and problemsolving skills reflect the spirit of engineering excellence.

The Department congratulates Team Garuda on this remarkable achievement and wishes them continued success in all their future endeavors.



CODEAVOUR 6.0

TEAM TECH-WARRIORS



We congratulate Mithran M, Gnaneshwar B, and Dakshitha S, first-year Mechanical Engineering (AI & ML) students, for their remarkable performance as Team Tech Warriors in Codeavour 6.0, a leading international AI, coding, and robotics competition which was held on 12th and 13th April 2025.

Out of over 250 teams that participated in the regional rounds across India, Team Tech Warriors stood out with their innovation and technical skills, earning their place in the national-level competition. Their achievement reflects strong problem-solving abilities, teamwork, and a passion for emerging technologies—hallmarks of the future-ready engineers at SRMIST Vadapalani Campus.

SRM PROJECT EXPO 2025

TEAM TECH-WARRIORS



M. Mithran, B. Gnaneshwar, P.C. Surya, and S. Dakshitha from 1st Year, Mechanical-AIML made their mark at the prestigious SRM Project Expo 2025, held on April 2nd and 3rd at the Kattankulathur campus.

Competing in a dynamic environment that brought together students, scholars, and professionals from across the nation, the team showcased their technical prowess and innovative thinking. Their impressive project not only earned them recognition but also landed them a coveted internship offer — a promising start to their engineering journey.

NATIONAL SCIENCE DAY

TEAM TECH-WARRIORS



The Department of Physics, of SRM Institute of Science and National Technology, conducted the Science Day celebration on 28.02.2025, promoting scientific curiosity and interdisciplinary engagement. Four first-year students from the Mechanical-AIML stream — M. Mithran, B. Gnaneshwar, S. Dakshitha, and P. C. Surya — participated in the event and delivered an impressive performance on 28th Jan 2025. Showcasing their technical understanding and teamwork, students Second Place, distinguishing the secured themselves among various competing teams. Their achievement reflected the department's dedication encouraging academic excellence and participation in cross-disciplinary scientific platforms.



PLACEMENT DETAILS

< TURNING WRENCHES INTO PAYCHECKS >

L&T CONSTRUCTION

ARUNBOOPATHIS (BATCH 2021 - 2025)



Congratulations to Arunboopathi S, student of B.Tech - Mechanical Engineering (Al & ML), Batch 2025, for securing a placement at L&T Construction with a CTC of ₹6.0 - ₹6.8 LPA.

Your hard work, dedication, and passion have truly paid off. Wishing you great success as you begin your professional journey with one of India's leading infrastructure giants.

JYOTI CNC AUTOMATION

NITHISHKUMAR K (BATCH 2021 - 2025)



Nithishkumar K, a student of B.Tech - Mechanical - AIML (Batch of 2025), has been successfully placed at Jyoti CNC Automation with an impressive CTC of 4 LPA.

Your hard work and dedication have paid off, and the Department of Mechanical Engineering is incredibly proud of your achievement.

Wishing you all the very best in your professional journey ahead. Keep reaching new heights!!



FACULTY HONORS

< THE TEACHING THAT BUILDS MORE THAN MACHINES</p>
- IT BUILDS LEGACIES >

- > EXPERT TALK
- > BEST PAPER AWARD
- > NPTEL BELIEVER & MOTIVATOR
- > NPTEL DISCIPLINE STAR

EXPERT TALK

DR. ARUN RAPHEL - ASSISTANT PROFESSOR



Dr Arun Raphel - Assistant Professor Mechanical Engineering has delivered an Expert Talk on the topic Introduction to Powder Metallurgy to Mechanical Engineering Students of Mangalam College of Engineering, Kerala on 02.04.2025.

BEST PAPER AWARD DR. ANBARASU K G – ASSISTANT PROFESSOR



Dr. ANBARASU K G - Assistant Professor Mechanical Engineering has received the Best Paper Award for his research paper titled "An Experimental Study Post-Processing 3D-Printed Plastic Parts using the Vibratory Bowl Finishing Process" at the second International Conference on Advancements in Materials, Manufacturing and Automation by AMRITA School of Engineering, Chennai.

NPTEL MOTIVATOR & BELIEVER

DR. KAMATCHI HARIHARAN M

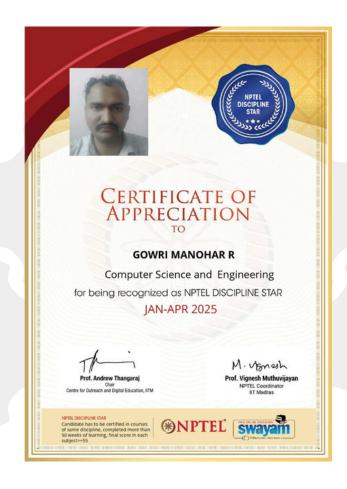




Congratulations to Dr. Kamatchi Hariharan on being recognized as an NPTEL Believer and NPTEL Motivated Learner for the period Jan - April 2025 . Your dedication to continuous learning and excellence is truly inspiring.

NPTEL DISCIPLINE STAR

MR. GOWRI MANOHAR R



Congratulations to Mr. Gowri Manohar on being awarded the NPTEL Discipline Star for the period Jan to April 2025. Your commitment to academic excellence and continuous learning is truly commendable.

FACULTY PUBLICATIONS

Dr. R. Rajaraman & Mr. Gowri Manohar:

Tribological impact and surface roughness prediction in nano-MQL assisted AA2024 machining
- <u>Proceedings of the Institution of Mechanical Engineers</u>, <u>Journal of Engineering Tribology</u> (Jun 2025)

Dr. N. Dinakar:

Tribological performance of weld joints fabricated using TIG welding on AISI304L stainless steel - Tribology-Materials, Surfaces & Interfaces , SAGE publications (May 2025)

Dr. Satthiyaraju M:

Synthesis of Zn-BaTiO₃ and fabrication of flexible Zn-BaTiO₃/PVDF nanocomposites for piezoelectric applications - <u>Journal of the Australian Ceramic Society Springer Nature Singapore</u> (May 2025)

Mr. R. A. Arul Raja:

Phyto assisted fabrication of highly stable titania nanoparticles for environmental purification applications - AIP Conference Proceedings , AIP Publishing LLC (Jun 2025)

FACULTY PUBLICATIONS

Dr. Kamatchi Hariharan M:

An assessment of the mechanical properties of a composite material composed of natural fibres and reinforced with polymer - <u>STM Journals Master</u> (Jan 2025)

Dr. P. Haja Syeddu Masooth:

Pancreatic Cancer Detection using deep learning for health care applications - Atlantis Highlights in Engineering, Springer Nature Atlantis Press (Jun 2025)

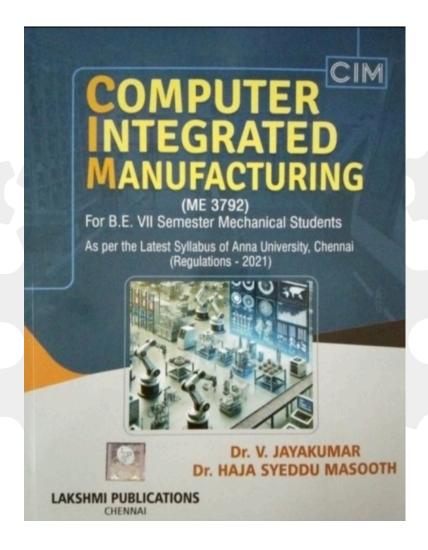
Dr. Arun Raphel:

Advances in additive manufacturing for biomedical applications - <u>Challenges and Innovations in 3D Printed Bio-Organs and Their Materials (Jun 2025)</u>

PATENTS PUBLISHED

Faculty Name	Patent Title
Mr. R.A. Arul Raja	Safety helmet with camera and solar powered fan for construction workers (Jan 2025)
Dr. P. Haja Syeddu Masooth	Solar powered irrigation system with IoT based moisture monitoring (Jan 2025)
Dr. Kamatchi Hariharan M	Evaluation of cellular properties for non-small cell-lung cancer treatment based on advanced nanoparticle drug delivery system (Jun 2025)

COMPUTER INTEGRATED MANUFACTURING DR. P. HAJA SYEDDU MASOOTH



Dr. P Haja Syeddu Masooth published a book titled "Computer Integrated Manufacturing".

Date of Publication: 06.11.2024

ISBN Number: 978-81-977971-5-6

EDITORIAL BOARD FACULTY INCHARGES



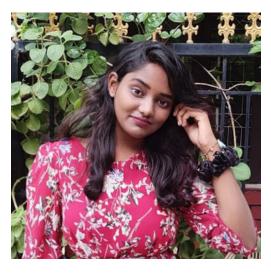
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Mechanical Engineering



Dr.Kamatchi Hariharan MAssistant Professor (S.G)
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EDITORIAL BOARD

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Tejaswini V A2nd Year Mechanical-AIML



DV Mirnalini4th Year Mechanical-AIML