



RESONANCE

Newsletter for Mechanical Engineering



Volume 4 | Issue 1 | July 2022

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Recognition

The National Board of Accreditation had accredited the B. Tech - Mechanical Engineering program for six years from the year 2021 to 2027.

The B.Tech. - Mechanical Engineering program at Kattankulathur campus is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>.

Department Vision

To impart knowledge to our students in an ambience of Humanity, Wisdom, Intellect, Creativity of Innovation, in order to nurture them culturally and ethically rich professionals with bright future.

Department Mission

To impart quality education to produce mechanical engineers and enhance their skills to become world renowned professionals.

To establish Centers of Research Excellence to inculcate research acumen in faculty and students on the areas like, machining, biomechanics, biofuels, composites, and energy.

To provide state-of-the-art education and training programs to the faculty and student fellowship.

Department of Mechanical Engineering, SRMIST, Kattankulathur.

<https://www.srmist.edu.in/engineering/department-of-mechanical-engineering/about-the-department>

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About the Department

The Department of Mechanical Engineering is one of the pioneering departments of SRM IST. The present faculty strength is 115 in which 54 Faculties are PhD Holder. More than 1000+ Research papers have been published in international or national journals and conferences. The department is functionally divided into three broad areas of specialization: (i) Design (ii) Manufacturing and (iii) Thermal. The department offers Doctoral programs in these three areas of specializations. The National Board of Accreditation had accredited the B. Tech - Mechanical Engineering program for six years from the year 2021 to 2027. The B.Tech. - Mechanical Engineering program at Kattankulathur campus is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>.

Message from the Chairperson, School of Mechanical Engineering



Dr. D. Kingsly Jeba Singh
Professor & Chairperson

I am happy to note that the next newsletter of the Department of Mechanical Engineering is ready. After COVID-19, the College has opened in full physical mode. Initially, students found it difficult to be attentive in the classes, but our faculty members circumvent these issues within two weeks with the help of modern tools and environments. All courses are taught with the help of Learning Management Systems (LMS). In the last six months, the Department of Mechanical Engineering has organized a few webinars, faculty development programs, symposiums, etc. in the upcoming areas.

I hope this effort will definitely enrich our environment with academic rigour required to teach the students of 21st century. To make our students to understand and work with the disruptive technologies of modern era, the department has revamped the curriculum and syllabus of the programmes with courses on Artificial intelligence, Data analysis, etc. The faculty members have initiated many multi-disciplinary student projects. Industry sponsored laboratories and industry grade machineries available in the department make it easy for the students to get training and do laboratory exercises in industry-like environment. In the coming years, with our research focussed faculty members, the department will continue to carry out activities with direct social impact (renewable energy, energy storage, smart materials, and electric vehicle technology) and promote translational research. I wish all the best for the academic, research and developmental activities in the department to achieve greater heights. Your comments and suggestions are welcome to improve our academic journey.

Message from the Head, Department of Mechanical Engineering



Dr. M. Cheralathan
Professor & Head

I am very happy to publish the fourth volume of “Resonance”, our departmental newsletter. I would like to thank all the faculty members, supporting staffs, and students for their limitless support and sincere efforts for the betterment and development of the department. Dynamic and dedicated faculty members whose expertise spans the range of disciplines in the Mechanical Engineering stream, hard-working students, and a very healthy work culture are the basic elements that comprise the department. I am sure in times to come; many students from our department will make an indelible mark globally in the field of Mechanical Engineering and make us proud. On this occasion,

I congratulate all the team members of the editorial board for bringing up this issue in an excellent shape. Also, I invite readers of this newsletter to give suggestions for further improvement in the forthcoming volumes.

4th International Conference on Advances in Mechanical Engineering (ICAME 2022)

The Fourth 4th International Conference on Advances in Mechanical Engineering (ICAME-2022) in VIRTUAL mode was organized by the Department of Mechanical Engineering of SRM Institute of Science and Technology (SRMIST), Kattankulathur in association with some prestigious organizations, such as Mechanical Engineering Association (MEA), Solar Energy Society of India (SESI), Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) -Chennai Chapter, Glass, SRM Innovation and Incubation Centre, American Society of Mechanical Engineers (ASME)-SRM Student Section, and Institution's Innovation Council, from 24th to 26th March 2022. The ICMAE 2022 is designed to cover a broad field of emerging multi-disciplinary topics in developing advanced materials, characterization, manufacturing and their growing applications.

Convener: Prof. Dr. M. Cheralathan, HOD/Mechanical.

Co-Conveners: Dr. K. Suresh Kumar; Dr. Shubhabrata Datta; Dr. P. Nanda Kumar; Dr. U. Mohammed Iqbal.

Coordinators: Dr. R. Senthil, Dr. M. Prakash, Dr. I. Infanta Mary Priya, Dr. E. Vijayaraghavan & Dr. C. Selvam



< ICAME 2022 Proceeding released by **Prof. R. Velraj**, Vice Chancellor, Anna University >

Prof. R. Velraj, Vice Chancellor, Anna University has released the Proceedings of the ICAME 2022 conference and greeted the guests and participants. The Inaugural Address was delivered by Prof. R. Velraj, Vice Chancellor Anna University, Chennai, TN, India. In his address, he enlightened the participants with state-of-the-art several materials, resin and revolutionary technological innovations, and he provided several innovative ideas and concepts in designing and fabricating products by reducing cost and energy.



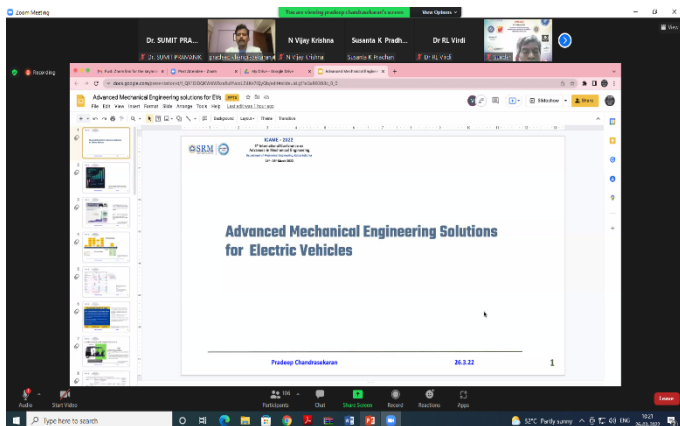
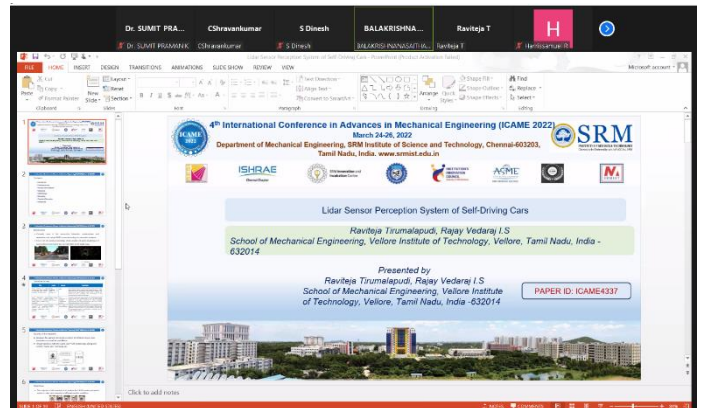
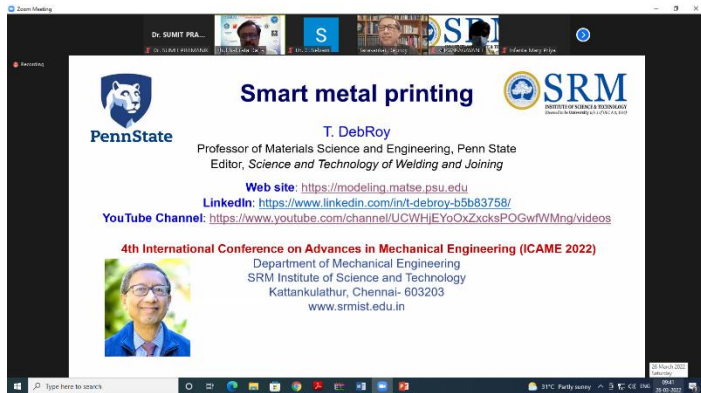
< **Prof. T. V. Gopal**, Dean CET, SRMIST, Kattankulathur Presides ICAME 2022>



< **Virtual release of ICAME 2022 Proceedings**>

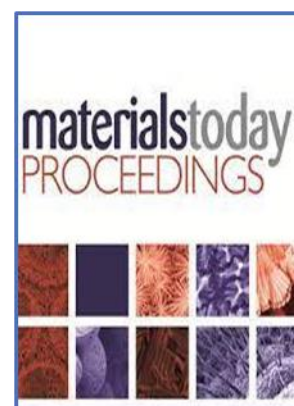
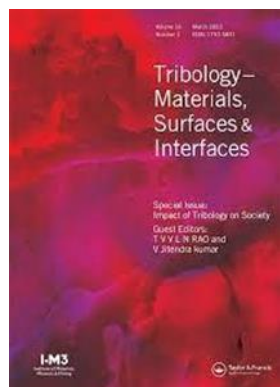
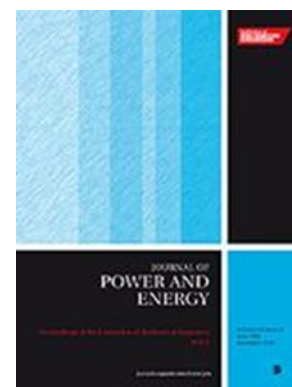
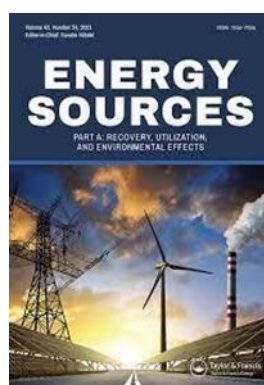


The invited speakers are globally recognized experts in the respective fields viz., **Prof. Dr. Bidyut Baran Saha**, International Institute for Carbon-Neutral Energy Research (WPI-I2CNER), Kyushu University, Japan, **Prof. Tarasankar DebRoy**, The Pennsylvania State University, United States, **Prof. Jaharah A**, Universiti Kebangsaan Malaysia, **Prof. Manoj Gupta**, National University of Singapore, Singapore, **Prof. Ahmad Baharuddin Bin Abdullah**, School of Mechanical Engineering, Universiti Sains Malaysia, **Prof. Dr. Sivasankaran Harish**, The University of Tokyo, Japan, **Prof. Dr. Fuda Ning** Binghamton University, United States, **Dr. Palavesa Murugan R**, Head of Change Management at Ashok Leyland, Chennai, India, **Mr. Pradeep Chandrasekaran**, Associate Director, OLA Electric Technologies Pvt Ltd, Pune, India.



The total number of participants in the conference was about 525 from various reputed national/international institutions and industries. The conference is planned with total 48 session where 8 parallel sessions on in forenoon (FN) and 4 parallel sessions on in afternoon (AN) in eight essential research areas topics on Aerospace, Alternate fuels, Energy, Fluid mechanics, Biomechanics, Industrial Engineering, Manufacturing, and Manufacturing-Artificial Intelligence. The number of Plenary Talks is 3, Keynote Lectures is 6, and Contributory Talks is over 455.

ICAME 2022 partnered with various peer reviewed journals. The event organizer are grateful to the Editors and Editorial office of the partnered journals.



The total papers selected for the conference is 455. The number of selected conference papers to be published in 11 suitable journals after peer reviewed process of the respective journals.

Number of Papers under Peer Review Process from ICAME 2022 under Various Journals

| SL.No | Journal Name | Number of Papers |
|--------------|---|-------------------------|
| 1. | Journal of Thermal Analysis and Calorimetry. Springer publication, SCI, IF=4.626. No publication charge: Regular issue | 30 |
| 2. | Materials and Manufacturing Processes. Taylor and Francis publication, SCI, IF=4.616. No publication charge: Special issue | 13 |
| 3. | Energy sources, part A: recovery, utilization and environmental effects abbreviation. Taylor and Francis publication, SCI, IF=3.447. No publication charge: Regular issue | 33 |
| 4. | Heat transfer engineering. Taylor and Francis publication, SCI, IF=2.172. No publication charge: Special issue | 16 |
| 5. | Journal of Power and Energy. Sage publication, SCI, IF=1.882. No publication charge: Regular issue | 13 |
| 6. | Journal of Engineering Tribology. Sage publication, SCI, IF=1.674. No publication charge: Regular issue | 05 |
| 7. | Tribology - Materials, Surfaces and Interfaces. Taylor & Francis publication, Scopus indexed, SNIP=0.87. No publication charge: Regular issue | 05 |
| 8. | International Journal of Vehicle Structures & Systems. Mech Aero Foundation for Technical Research & Education Excellence (MAFTREE) publication, Scopus indexed, SNIP=0.677. Publication charge: 5000 INR: Special issue | 50 |
| 9. | Materials Today Proceedings, Elsevier publication, Scopus indexed, SNIP=0.657. Publication charge: USD30 (30 US dollars+ 18% Tax): Special issue | 166 |
| 10. | Journal of the Institution of Engineers (India): Series D, Springer publication, Scopus indexed, SNIP=0.588. No publication charge: Regular issue | 23 |
| 11. | AIP Conference Proceedings, AIP publications, Scopus indexed, SNIP=0.314. Publication charge: USD 100 (hundred US dollars): Special issue | 50 |

Ph.D., Awarded

1. **Mr. A. Vinoth** completed his Ph.D. public viva-voce oral examination on July 22, 2022, at SRM Institute of Science and Technology, Kattankulathur, Chennai. Title: Design and Development of Hybrid UHMWPE Composites for Hip Implants. Supervisor: Dr. Shubhabrata Datta, Research Professor, Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur.
2. **Mr. P. Susai Manickam** completed his Ph.D. public viva-voce oral examination on April 06, 2022, at SRM Institute of Science and Technology, Kattankulathur, Chennai. Title: Design of a Cage and its Biomechanical Study for Cervical Spine at C4-C5 level. Supervisor: Dr. Sandipan Roy, Research Assistant Professor, Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur.

Funded Research / Consultancy Projects Accepted

1. **Dr. R. Ambigai** as the Principal Investigator and Mr. Steve James (Full-time Research Scholar) as the Co-Investigators submitted a research proposal titled "A Vision-Based Modular Robotic Pipeline Inspection System for Rapid and Non-Invasive Surface Crack Detection Based on Real-time Image Processing in Oil and Gas Pipelines", has been selected by **Sony** under **Sensing Solutions University Program (SSUP), India**. (Fund: Rs. 15.6 Lakhs).
2. **Dr. U. Mohammed Iqbal** as the Principal Investigator submitted a research proposal titled "Experimental and Numerical Investigation on driveline shaft from solid to hollow through cold drawing process", which has been sanctioned by RANE NSK on 13 April, 2022. (Fund: Rs. 6 Lakhs, Duration: 3 years)

Funded Research Project Proposals Submitted

1. Dr. M. Uma (PI) and **Dr. S. Prabhu** (Co-PI) submitted a project proposal titled "SSVEP based Brain-Computer Interface Robotic Personal Assistant for Motor Impairment People using Deep Learning" to SERB under Core Research Grant on March 21, 2022, Ref. No.: 182022002491 (Budget: Rs.14,50,000/-; Duration: 3 years).
2. **Dr. S. Prabhu** (PI) and Dr. M. Uma (Co-PI) submitted a project proposal titled "Design and Development of Machine Learning Based Universal Soft Robotic End Effector" to SERB under Core Research Grant on February 24, 2022, Ref. No. : 18202200090 (Budget: Rs.15,41,953/- ; Duration: 3 years).
3. **Dr. S. Prabhu** (PI) and Dr. M. Uma (Co-PI) submitted a project proposal titled "A Robot based Virtual Health Monitoring System using Machine Learning Techniques and Optimization using Fuzzy Logic Expert system" to ICMR Ad-hoc project program proposal on February 15, 2022, Ref. No. :2022-16485, (Budget: Rs. 4,63,000/-).
4. Dr.Lim Chye Ing (PI) from Curtin University, Malaysia, **Dr. Prabhu** (Co-PI), **Dr. R. Ambigai** (Co-PI), Sujana Debanath (Co-PI), and Dr. Moola Mohan reddy (Co-PI) submitted a collaborative research project proposal titled "Experimental Investigation on machining of Functionally Graded Al-CNT Composites for Automotive Engines" under Fundamental research grant scheme (FRGS), Ministry of Higher education, Malaysia on January 2022, Application ID.: 427071. (Budget: Rs. 30,00, 000/- equivalent; Duration: 3 years).
5. **Dr. V. Magesh** (PI) submitted a project proposal titled "Development of Controlled force Orthodontic Debonding system" to SERB under Core Research Grant. (Budget: Rs.5,73,100/-).
6. Prof. Sang Huyn Kim (PI) and **Dr. S. Murali** as one of the Project Members (out of 8 members from Dongyang University, South Korea) submitted a collaborative research project titled "Study on Effective Disaster Prevention of Complex (System) Facilities" to the KOSHA (Korean Occupational Safety and Health Certification Institute, South Korea on April 2022 (Budget Rs. 30 Lakhs equivalent: Duration: Five Months).

Patent Granted (Faculty and Students)

1. Se Jin Park, Seung Hee Hong, **Murali Subramaniyam**, Yong Hyu Kim. "Personalized Optimal Head Shape Implementation System" US Patent Application 16/486117, filed on February 02, 2018, and Published July 07, 2020. Publication Number: 20200229700. Grant Number: US11298023B2 on 12.04.2022. (U.S. Patent). **Status: Granted.**

Patent Published & Filed (Faculty and Students)

1. S. Sudhakar, **V. Mathanraj**. A SYSTEM FOR EVALUATING TWO EQUAL SEGMENTS ACROSS A SINGLE SLOPE SOLAR STILL, Application Number: 202241038713; Application Date: 05-07-2022. Publication Number: 202241038713. Publication Date: 15-07-2022. Indian Patent. **Status: Published.**
2. Seung Nam Min, Jae Seong Lee, Chae Min Lim, Ki U Kim, Yung Woo Kuw, Kim Jin Woo, **Murali Subramaniyam**, Godla Navyatha (First Year M. Tech Robotics). "Safety Helmet Integrated Management System" filed February 11, 2022. Application no. 2022-0018456 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed.**
3. Seung Nam Min, Su Min Noh, Ji Eun Rho, **Murali Subramaniyam**, D. Mounika (Second Year M. Tech Robotics) & Muhammed Inzamam (Second Year M. Tech Robotics). "Finger Assistance Apparatus" was filed on February 11, 2022. Application no. 2022-0018454 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed.**
4. Seung Nam Min, Deok Gyu, Hoon Kim, **Murali Subramaniyam**, Ramnaath M (Second Year M. Tech Robotics), "Smart Helmet" filed on February 11, 2022. Application no. 2022-0018455 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed.**

Awards/Recognitions (Faculty and Students)

1. **Best Outgoing – Student Award** – Mr. Niranjan Oommen [RA1811002010426] based on the total points scored.
2. **Academic Excellence Award** – Mr. Siddharth Raj [RA1811002010389] with 9.86 CGPA (Topper in KRT)
3. **Best Student – Researcher Award** - Miss. R. V. Nanditta [RA1811002010002] based on the number of publications.
4. **Best Student – Inventor Award** – Miss. Arushi Sharma [RA1811002010073] based on the number of patents and start-up registration.



Mr. Niranjan Oommen
Reg No: RA1811002010426



Mr. Siddharth Raj
Reg No: RA1811002010389



Miss. R.V. Nanditta
Reg No: RA1811002010002



Miss. Arushi Sharma
Reg No: RA1811002010073

5. Mr. Yuvraj Singh [RA1911002010189] **won the Monday Morning Quiz** (MMQ19) 2022 organized by PQSI held on 28/02/2022.

6. **Research Day - Gold Medal Award** – **A. Sathish Kumar** and **M. Cheralathan**, “Effective of active multi-walled carbon nanotubes (MWCNT) on energy storage density of DI water for cool thermal energy storage system”, Research Day 2022, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, February 28, 2022.
7. **Research Day - Gold Medal Award** – D. Bhanu Priya [Research scholar] and **Murali Subramaniyam**, “Study on the effect of prolonged smartphone usage and its associated health risk”, Research Day 2022, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, February 28, 2022.
8. **Research Day - Silver Medal Award** – Jivitesh Punj [RA1811002010388], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, “Numerical analysis of Tandem circular cylinder arrangement with incident face optimization”, Research Day 2022, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, February 28, 2022. Paper ID: ME20.
9. **Best Paper Award** – S. Nanda Kumar and **Dr. P. Chandrasekaran**, " Influence of surfactants on the performance enhancement of water based gamma Al_2O_3 phase change material for cool thermal energy storage system " 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
10. **Best Paper Award** - **Dr. I. Infanta Mary Priya** and Muhammed Inzamam, "The design and development of a soft robotic gripper" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
11. **Best Paper Award** - **Muralidharan S**, and **Mohammed Iqbal U**, “Experimental study and optimization of process variables in Multi-angular twist extrusion (MATE) of Cu-cr-zr alloy” 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
12. **Best Paper Award** - C. Ayyanar and **Sumit Pramanik**, " Effect of Graphene on Self-healing Performance of Hydroxyapatite/polydimethylsiloxane Composites" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4271.
13. **Best Paper Award** - P. Karthikeyan and **Sumit Pramanik**, " Comparison of Hand Spray and Machine Spray Coating on H13 Tool Steel for Pressure Die Casting Mould Components " 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4708.
14. **Best Paper Award** – Srinivasan Venkatesh [RA181203101005], Shaik Subhani [RA18120310005] and **R. Senthil Kumar**, "Numerical investigation on natural convection analysis on tandem heated obstacles inside a square enclosure," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4026.
15. **Best Paper Award** – Jivitesh Punj [RA1811002010388], Shaik Subhani [RA18120310005] and **R. Senthil Kumar**, "Numerical investigation on natural convection analysis on tandem heated triangular cylinders inside a square enclosure," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4027.
16. **Best Paper Award** – Hemant Chatterji [RA1811002010197], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, "Numerical investigation of Flow around a bluff body with varying geometry with downstream control cylinders," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4199.
17. **Best Paper Award** - Ramnaath M [Second Year M. Tech Robotics], **Murali Subramaniyam**, Seung Nam Min, "Development of Low-cost Interface Pressure Measurement Mat for Wheelchair Occupant," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4304.

18. **Best Paper Award** - Sankar Ganesh and **R. Ambigai**, “Optimization of quadcopter Design and Fabrication of Drone Component by 3D Printing Method” International Conference on Intelligence in Industrial Automation (ICIIA 22), Department of Mechanical and Mechatronics Engineering, Velammal Institute of Technology, 15th June 2022.
19. **Best Project Award** - Satrudhan Kumar and Aman, Design and Development of Mechanical Bird”, MAY 2021, Manufacturing Division, Dept. Mechanical Engineering, SRMIST, Guidance: **Dr. Sumit Pramanik**.
20. **Certificate of Merit** - Ms. Nateswari M [RA2111002010144, B. Tech First Year] presented a project titled “Hydraulic Powered Robotic Arm” and won the best project /working model award, in Techknow-2021 Second edition, Department of Physic and Nanotechnology, SRMIST on 06-10 June 2022.
21. **First place – Quiz**. Mr. Pulkit Mattur & Mr. Satish Kumar secured first place (Cash award Rs. 5000/-) in Quiz on “Total Quality Management Principles” organized by the National Institution for Quality and Reliability (NIQR), Chennai branch on 30 April, 2022. A total of 123 teams registered for the quiz, 82 teams participated in the online prelims, 22 teams selected for the finals. Top 5 teams appeared for the final (buzzer round) including teams from Anna university, Meenakshi Sundararajan Engineering College, Easwari Engineering College, and a Company. Mentor: **Dr. E. Vijayaragavan**.



< Mr. Pulkit Mattur & Mr. Satish Kumar with Mentor Dr. E. Vijayaragavan receiving First place award from NIQR, Chennai>

22. **Sports Award** - Kajal Singh [RA2111054010015, B. Tech First Year] won First place in singles and mixed doubles category "ACE 2.0 badminton tournament", conducted by SRM DSA on May 07, 2022.
23. **Sports Award** - Kajal Singh [RA2111054010015, B. Tech First Year] won Second place in the mixed doubles category of CTECH SPORTS 2022 badminton tournament, conducted by Computing Technology Association, SRM IST during 19-21 May, 2022.
24. Mr. S. Visva Varadhan [RA1811002010185] & Mr. D. V. Dheerajsai [RA1811002010185] **Runner up and Top 3 Entries** in the symposium on Alternative Fuel & Alternative Materials at 11th edition of EXCON 2021 organized between 17-21 May, 2022. Paper title: Reduction of carbon dioxide emission from diesel engine fuelled with jatropa biodiesel blend using olivine. Out of 80 entries from across India, 3 papers were shortlisted based on their research, originality and practicality, SRM being one of the top 3 and a runner-up. Guide: **Dr. G. Balaji**.



< Mr. S. Visva Varadhan [RA1811002010185] & Mr. D. V. Dheerajsai [RA1811002010185] receiving awards at EXCON 2021>

25. The **Mechanical Engineering Association (MEA)** organized TECH QUIZ LEAGUE for Third Year Mechanical Engineering Students on different dates. **Round 1** on 26 February 2022 with topic “Metrology & CAD/CAM”; **Round 2** on 20 April 2022 with topic “Mechanical Engineering Design”; **Round 3** on 22 April 2022 with topic “Material Technology”; and **Final round** on 25 July 2022 with topics “Design, Thermal, Manufacturing”. The winner for the “Tech Quiz League Championship” is “Mech D section” followed by Mech C and Mech E. Faculty Coordinator: **Dr. A. Vijaya**. Student Coordinator: Aswing Suresh Kumar, Keerthana Dinesh, Shashank B, A. R. Suriya Devalan, Shibu Jeyanth



| Position | Members | Team |
|-----------|--|--------|
| 1st Place | Anurag, Sujal Porwal, Amulya Srivastava, Nischal Sinha | Mech D |
| 2nd Place | Shreyans Chaturvedi, Aditya Nirman Chaturvdei, Tejas Swaraj, Sailesh | Mech C |
| 3rd Place | Vishal A Rawal, Mayanj Raj, Ashribad Pony | Mech E |



< TECH QUIZ LEAGUE by Mechanical Engineering Association (MEA) >

26. *Best Project Award* – 18MEP107L - Minor Project (Odd Sem 2021-2022) – B. Tech

- Ahin Honymon [RA1811002010155], V. Aprameya [RA1811002010156], and Rahul Ryan Savio [RA1811002010162], “Study and development of AL-5356 material using Additive Manufacturing”. (Team: M37). Guide. **Dr. N. Harshvardhana**
- Arushi Sharma [RA1811002010079], Avimanyu V [RA1811002010079], and Animesh Singh [RA1811002010085], “AI based design of hybrid PEEK composites with improved tribo-mechanical behavior”. (Team: D25). Guide. **Dr. Shubhabrata Datta**
- Soppa Purna Chandu [RA1811002010375], Tekal Shyam [RA1811002010359], “Analysis of performance characteristics of diesel engine”. (Team: T37). Guide. **Dr. V. Praveena**
- Viswa Balaji S [RA1811002010396], K Ohviya Lakshmi [RA1811002010447], and Agilan S V [RA1811002010370], “Study on heat transfer characteristics of composites phase change material in spherical”. (Team: T41). Guide. **Mr. P. Sundaram**
- Shenir R [RA1811002010050], Samuel Mannish T [RA1811002010055], and Likith Charan N S [RA1811002010058], “Experimental Investigation of Jatropha Oil Blends on CRDI Engine by Varying Fuel”. (Team: T04). Guide. **Dr. G. Balaji**
- Dinesh Kumar K S [RA1811002010515], Karuturi Praveen Babh [RA1811002010505], and Killamsetty Prem Chandra [RA1811002010507], “Mitigating Emission on a CI Engine using a Catalytic Converter”. (Team: T35). Guide. **Dr. G. Balaji**.
- Krishna Darshan R [RA1811002010072], Rajaram B [RA1811002010074], Jagadish D [RA1811002010088] “Heat treatment and its effects on aluminium alloys” (Team: M02). Guide: **Dr. R. Ambigai**.
- Rahul ashok [RA1811002010114], Neelesh edupuganti [RA1811002010115], “Tribological behaviour on hypereutectic and hypoeutectic alloys” (Team: M04) Guide: **Dr. R. Ambigai**.

27. *Best Project Award* – 18MEP109L - Major Project (Even Sem 2021-2022) – B. Tech

- S. Venkatesh [RA1811002010392] and Jivitesh Punj [RA1811002010388], “Influence of slip distribution on flow past elliptical cylinder for Forced convection heat transfer”. Guide. **Dr. R. Senthil Kumar**
- Arushi Sharma [RA1811002010073] and Abhimanyu V [RA1811002010079], “AI based design of hybrid PEEK composite with improved tribomechanical properties for biomedical application”. Guide. **Dr. Shubhabrata Datta**
- Visva Varadhan S [RA1811002010006] and Dheerajsai D V [RA1811002010185], “Reduction of Carbon Dioxide Emission from Diesel Engine Fuelled with Jatropha Biodiesel Blend using Olivine”. Guide. **Dr. G. Balaji**
- Hemant Chatterji [RA1811002010197] and Bhargave Chowdary Ghattameneni [RA1811002010143], “Numerical Study on Forced Convective Heat Transfer Enhancement using Nano Fluids in Porous Media”. Guide. **Dr. R. Senthil Kumar**
- Thameenansari S [RA1811002010469] and Manikandan E J [RA1811002010470], “Experimental performance Analysis of Finned Solar Absorber for Parabolic Trough Collector”. Guide. **Dr. R. Senthil**
- Ritik Nair [RA1811002010103] and Sidharth Nambiar [RA1811002010094], “Performance Analysis of Single Slope Solar Still Glass Cover Coated with Chlorophyll Pigment as heat Absorbing Material and Seashells as Heat Storage Material”. Guide. **Dr. S. Balaji**

- Ganhapu Sandeep [RA1811002010223] and Aryan Mahajan [RA1811002010227], “Cell Structure and Compressive Strength of Foamed Aluminum Blown by Al Powder – TiH₂ Mixture Prepared Via Ball Milling”. Guide. **Mr. S. Sasikumar**
- Viswa Balaji S [RA1811002010396] and Ohviya Lakshmi K [RA1811002010447], “Study on Freezing behaviour of composite PCM for cold thermal energy storage”. Guide. **Mr. P. Sundaram**
- Tanmay Pharlina [RA1811002010220] and Raghav Garg [RA1811002010214], “Design and Development of Multipurpose Robotic End Effector using Fuzzy Logic Analysis”. Guide. **Dr. S. Prabhu**
- Praveesh C [RA1811002010411] and Pranav Achintya D [RA1811002010367], “Experimental Investigation on the Effect of Process Parameters on Friction Stir Welded Dissimilar Aluminium Alloys”. Guide. **Mr. R. Saravanakumar**

28. **Best Poster Presentation Award** – 18MEP109L - Major Project (Even Sem 2021-2022) – B. Tech

- Rabindra Sah [RA1811002010540], “Vibration based Fault Diagnosis of Rolling Element Bearing”. (Team: D11). Guide. **Dr. C. Shravankumar**
- Shubham Dubey [RA1811002010341], Aman Kumar [RA1811002010346], “Structural Analysis of Six and Four Wings Orthodontic Brackets” (Team: D13). Guide: **Dr. V. Magesh**
- Arushi Sharma [RA1811002010073], Abhimhanyu V [RA1811002010079], “Design optimization of hybrid PEEK composite with improved tribo-mechanical properties” (Team: D27). Guide: **Dr. Shubhabrata Datta**
- Praveesh C [RA1811002010411], Pranav Achintya [RA1811002010367], “Experimental investigation on the effect process parameters of friction stir welded dissimilar aluminium alloy” (Team: M56). Guide: **Mr. R. Saravanakumar**
- Madhurjya Cho [RA1811002010316], Abhijeet Dutta [RA1811002010329], “Influence of Manganese addition on Ball milled TiAl alloy powder mixture” (Team: M61). Guide: **Mr. Dhanasekaran M**
- Ganhapu Sandeep [RA1811002010223], Aryan Mahajan [RA1811002010227], “Cell Structure and Compressive Strength of Foamed Aluminum Blown by Al powder – TiH₂ Mixture prepared via Roll milling” (Team: M79). Guide: **Mr. S. Sasikumar**
- Sattwik Harichandan [RA1811002010007], Rohan Mitra [RA1811002010015], “Experimental investigation of effect of Hydrogen induction in HCCI-DI compound engine fueled with camphor oil blended diesel fuel” (Team: T02). Guide: **Mr. G. Manikandaraja**
- Tanay Sureka [RA1811002010051], Digvijay Singh Katoo [RA1811002010057], “Enhancement of solidification process in a spherical capsule using heat transfer enhancers” (Team: T08). Guide: **Dr. D. Premnath**
- S. Vengatesh [RA1811002010392], Jivitesh Punj [RA1811002010388], “Flow and heat transfer characteristics of obstacles under confined channel flow (Team: T20). Guide: **Dr. R. Senthil Kumar**



< B. Tech Mechanical Final Year Students 2018-2022 Batch 1>



< B. Tech Mechanical Final Year Students 2018-2022 Batch 2>

29. **Best Poster Presentation Award** – 20MEP604L – Project work phase II (Even Sem 2021-2022) – M. Tech

- D. Mounika [RA2012017010002], “Development of IoT based Insole for Measuring Foot Pressure Distribution using FSR sensor” (M. Tech Robotics). Guide: **Mr. N. Arun**
- Vigneswari Gowri A [RA2012017010017], “Virtual Health Monitoring – A Robot based approach” (M. Tech Robotics). Guide: **Dr. S. Prabhu**
- R. Lokesh [RA2012031010006], “Design of MPPT based Solar Inverter using Adaptive Neuro Fuzzy Interface” (M. Tech Solar Energy). Guide: **Dr. S. Manikandan**
- Sanjayan P [RA2012003010004], “Design of high entropy alloys for hard tissue implants using machine learning” (M. Tech CAD). Guide: **Dr. Shubhabrata Datta**

Placement Statistics 2022 Batch

The Campus placement cycle of the 2022 Batch started on 3rd June 2021. As on 30th June 2022, 470 offers were secured by the B-Tech students and 16 offers by M-Tech students during the campus placement cycle. **A total of 332 B-Tech students and 21 M-Tech students enrolled for the campus placement.**

B. TECH

HIGHEST PACKAGE: 18.6 LPA

LOWEST PACKAGE: 3.5 LPA

AVERAGE: 5 LPA

NO. OF COMPANIES VISITED: 221

M. TECH

HIGHEST PACKAGE: 12 LPA

LOWEST PACKAGE: 4 LPA

AVERAGE: 6 LPA

NO. OF COMPANIES VISITED: 34

Our Recruiters



Our Recruiters



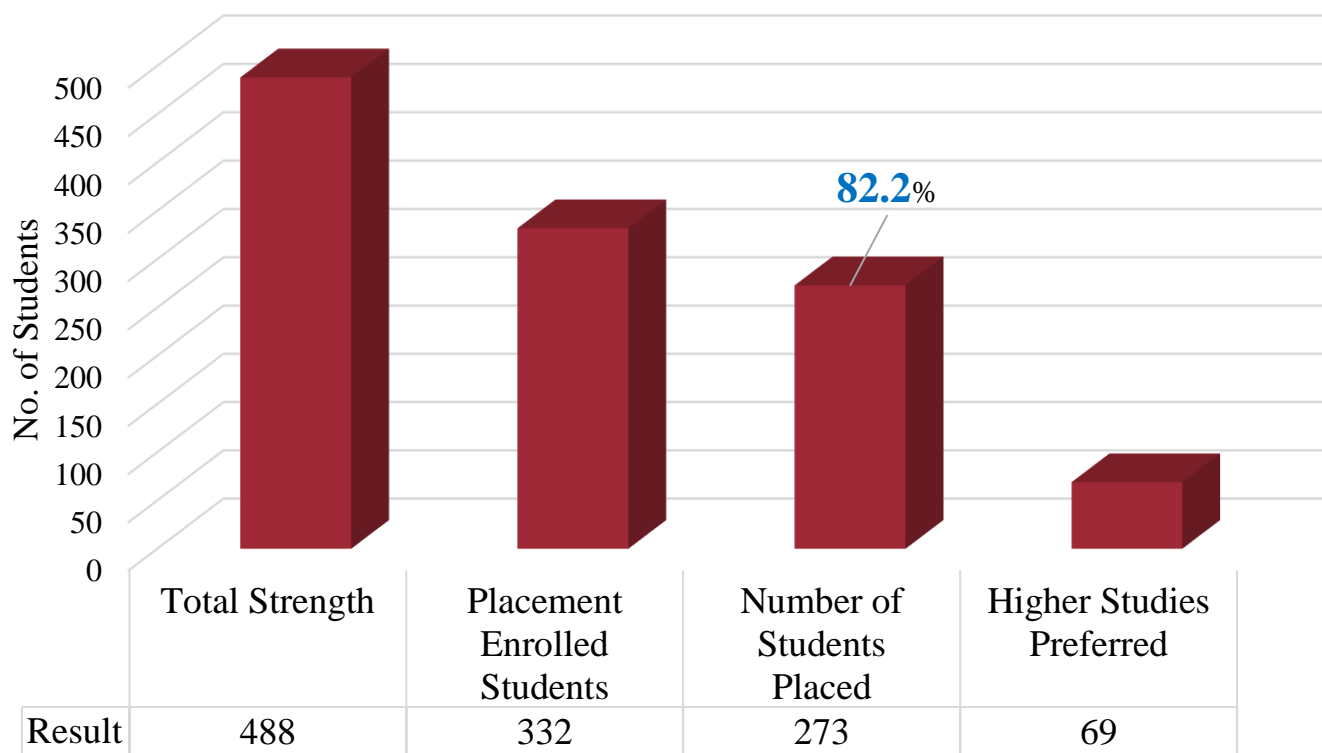
Our Recruiters



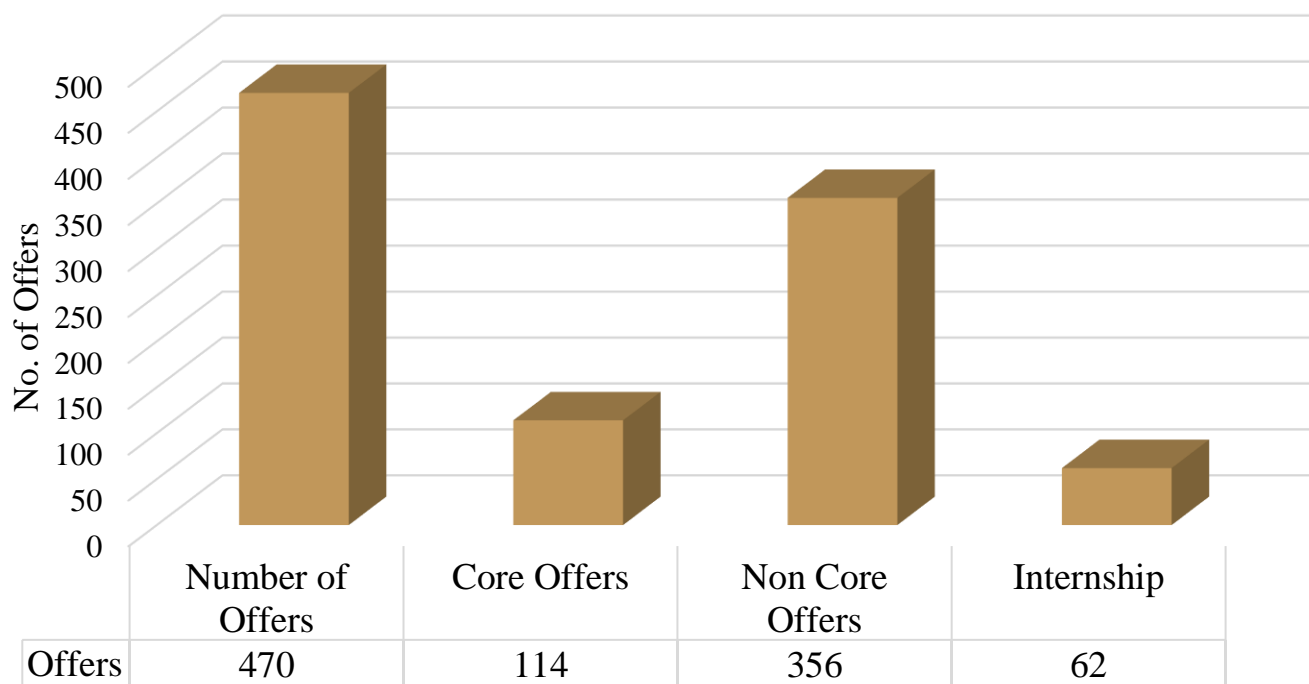
Our Recruiters



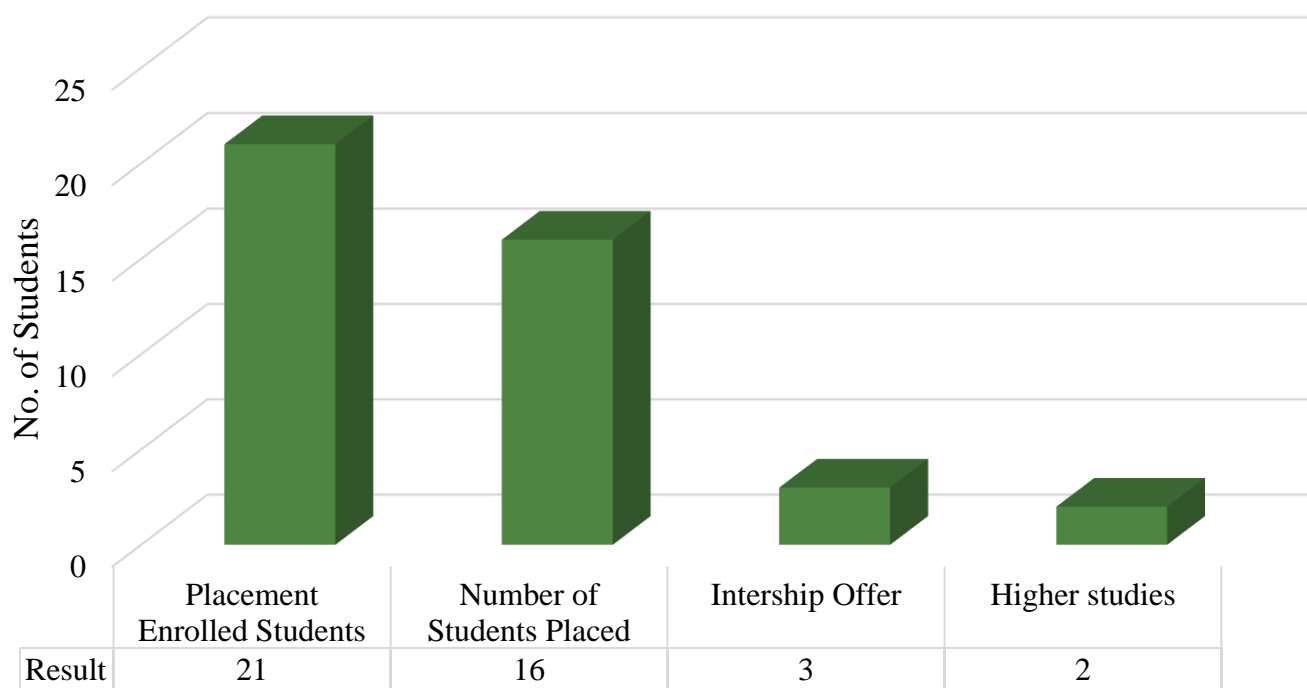
2022 Batch **B. Tech** Placment (as on 30th June 2022)



2022 Batch **B. Tech** Placment (as on 30th June 2022) - No. of offers



2022 Batch M. Tech Placement (as on 30th June 2022)



Companies offered top offers during 2022 batch placement

| Company | No of offers | CTC |
|--|--------------|-----------|
| Amazon | 8 | 18.6 LPA |
| ZS Associates | 2 | 14.34 LPA |
| Hewlett Packard Enterprise India Pvt Ltd (HPE) | 2 | 12 LPA |
| Schlumberger | 8 | 10 LPA |
| Admitkard | 2 | 10 LPA |
| Accenture | 1 | 9.9 LPA |
| JSW Energy | 4 | 9.5 LPA |
| Mars Petcare | 1 | 8.8 LPA |
| Quantiphi Analytics Solutions Pvt. Ltd. | 2 | 8.5 LPA |
| Reliance Industries | 8 | 8 LPA |
| Morphle Labs | 2 | 8 LPA |



Placement Team Activity (Feb 2022 to July 2022)

1. Superset Enrolment and Verification for Odd Semester- 2022 Batch

The enrolment of students in Superset, the official University recruitment platform, for 2023 Batch students who have cleared the arrears and became eligible started from 28th June 2022. The last date for enrolment is 06.06.2022 till 5.00 pm. The verification and approval of profiles of enrolled students also done by the Department Placement Coordinators. Date: 28th June – 6th July

2. Day Sharing Process - 2023 Batch

The campus recruitment by Cognizant - day sharing process for the 2023 batch, is initiated on June 2022. The written tests were completed at various TCS ION Centres from 30th June to 4th July 2022 in Chennai and online interviews under process.

3. Aptitude and Coding Training - TCS applied students 2023 Batch

The placement enrolled student are given special training sessions in Skill Rack and NEOPAT platforms to enhance their coding skills for TCS Day sharing process.

4. Training program / value-added course - ENGLISH SPEAKING SKILLS

SRM IST conducted a Training program / value added course for interested students on enhancing the speaking skills in English. This course aims at making the registered candidates fluent at the survival level usage of the language. This is a free 30 hours course for placement enrolled students. Date: 13th – 30th June 2022; Time: 30 Hrs

5. Department Meeting - TCS applied students 2023 Batch

The placement coordinators, Department of Mechanical Engineering conducted an online meeting with TCS applied students of department to give them athen awareness and to solve any issues and queries in TCS day sharing process. Date: 17th June 2022; Time: 06.00 PM to 07.00 PM

6. Superset Registration - 2023 Batch

The registration of students in Superset, the official University recruitment platform, for 2024 Batch students started from 31st May 2022. The last date for enrolment is 10.06.2022 till 5.00 pm.

7. Skill Development Training - 2024 Batch

College of Engineering and Technology has decided to impart Skill Development Training to all students focusing on Placement/Higher Studies/Entrepreneurship at an early stage, starting from third semester. This would enable students to shape their career plans in a more systematic manner. We are pleased to announce that the Skill Development Training will commence from June 2022. The training will be provided by reputed professional trainers. This training is mandatory for all second-year students irrespective of the domain.

Department Semester Abroad Program (SAP) Achievements

1. **Ms. R. V. Nanditta [RA1811002010002]** successfully completed her Final Semester - Semester Abroad Program at Harvard Medical School, USA from Feb 2022 to June 2022.



2. **Mr. Vikas Jain [RA1911002010155]** successfully completed his Sixth Semester - Semester Abroad Program at the Polytechnic University of Valencia (UPV), Spain from Jan 2022 to June 2022.
3. **Mr. Joy Banerjee [RA1911002010059]** successfully completed his Sixth Semester - Semester Abroad Program at the Polytechnic University of Valencia (UPV), Spain from Jan 2022 to June 2022.
4. **Mr. Souvik Kanti Roy [RA1911002010129]** successfully completed his Sixth Semester - Semester Abroad Program at the Polytechnic University of Valencia (UPV), Spain from Jan 2022 to June 2022.



Journal Publication [Faculty and Students]

1. Rohan Bhuiya, Niank Shah, Divanshu Arora, **N. Vijay Krishna, S. Manikandan, C. Selvam**, and Ravita Lamba. "Thermal management of phase change material integrated thermoelectric cooler with different heat sink geometries." *Journal of Energy Storage* 51 (2022): 104304. [IF: 8.907]
2. Elumali Vengadesan, Abdul Rahim Ismail Rumaney, Rohan Mitra, Sattwik Harichandan, and **R. Senthil**. "Heat transfer enhancement of a parabolic trough solar collector using a semicircular multitube absorber." *Renewable Energy* (2022). [IF: 8.634]
3. Banumathi Munuswamy Swami Punniakodi, and **R. Senthil**. "Recent developments in nano-enhanced phase change materials for solar thermal storage." *Solar Energy Materials and Solar Cells* 238 (2022): 111629. [IF: 7.267]
4. S. Dhanalakshmi, V. Chakravartula, R. Narayanamoorthi, R. Kumar, G. Dooly, B. B. Duraibabu, **R. Senthil**. "Thermal management of solar photovoltaic panels using a fibre Bragg grating sensor-based temperature monitoring." *Case Studies in Thermal Engineering* 31 (2022): 101834. [IF: 6.268]
5. **S. Sasikumar**, K. Georgy, M. Mukherjee, and GS Vinod Kumar. "Production, stability, and properties of in-situ Al–5ZrB2 composite foams." *Materials Science and Engineering: A* (2022): 143501. [IF:6.004]
6. Elumali Vengadesan, Siddik Thameenansari, Ella Jaganathan Manikandan, and **R. Senthil**. "Experimental study on heat transfer enhancement of parabolic trough solar collector using a rectangular channel receiver." *Journal of the Taiwan Institute of Chemical Engineers* 135 (2022): 104361. [IF: 5.876]
7. **N. Vijay Krishna, S. Manikandan, C. Selvam**. "Enhanced performance of Thermoelectric Cooler with Phase Change Materials: An Experimental Study". *Applied Thermal Engineering* 212 (2022): 118612. [IF: 5.259]
8. **D. Premnath, P. Chandrasekaran, LRG Subramanian**, and **R. Senthil**. "Experimental performance of a finned spherical container in cold thermal storage for tropical buildings." *Environmental Science and Pollution Research* (2022): 1-12. [IF: 5.19]
9. **R. Senthil**, Banumathi Munuswamy Swami Punniakodi, Dhinesh Balasubramanian, Xuan Phuong Nguyen, Anh Tuan Hoang, and Van Nhanh Nguyen. "Numerical investigation on melting and energy storage density enhancement of phase change material in a horizontal cylindrical container." *International Journal of Energy Research* (2022). [IF: 4.672]
10. Vaibhav Singh, Anuj Kumar Sharma, Ranjeet Kumar Sahu, and **Jitendra Kumar Katiyar**. "State of the art on sustainable manufacturing using mono/hybrid nano-cutting fluids with minimum quantity lubrication." *Materials and Manufacturing Processes* 37, no. 6 (2022): 603-639. [IF: 4.783]
11. **Deborah Serenade Stephen**, and **S. Prabhu**. "Optimization of grinding titanium with 2% CNT-CBN wheel using TOPSIS." *Materials and Manufacturing Processes* (2022): 1-12. [IF: 4.783]
12. K. V. J. Bhargav, P. S. Balaji, Ranjeet Kumar Sahu, and **Jitendra Kumar Katiyar**. "Exemplary approach using tool rotation-assisted μ -ECDM for CFRP composites machining." *Materials and Manufacturing Processes* (2022): 1-13. [IF: 4.783]
13. **P. Sundaram**, and Kalaiselvane Athiimoulam. "Influence of various additives on stability and phase change characteristics of DI water-GnP-based NFPCM for cold thermal energy storage systems." *Environmental Science and Pollution Research* (2022): 1-15. [IF: 4.223]
14. Anudipta Chaudhuri, Rajkanya Datta, Muthuselvan Praveen Kumar, João Paulo Davim, and **Sumit Pramanik**. "Energy conversion strategies for wind energy system: Electrical, mechanical and material aspects." *Materials* 15, no. 3 (2022): 1232. [IF: 3.748]

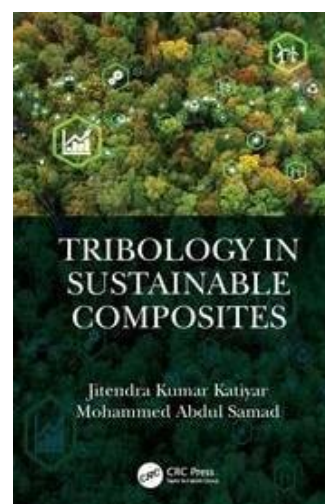
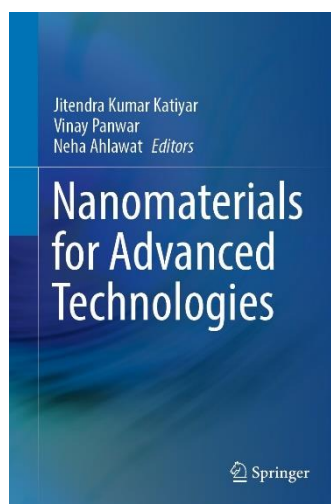
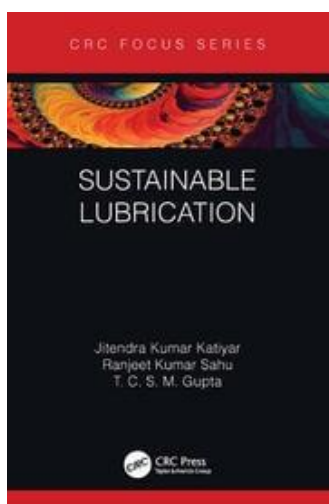
15. **S. Muralidharan** and **U. Mohammed Iqbal**. "Analysis of Multi-angular Twist Channel Extrusion Technique for Processing AA2024 Aluminium Alloy." *Metals and Materials International* (2022): 1-21. [IF: 3.642]
16. K. V. J. Bhargav, P. S. Balaji, Ranjeet Kumar Sahu, and **Jitendra Kumar Katiyar**. "Multi-response optimization and effect of tool rotation on micromachining of PMMA using an in-house developed μ -ECDM system." *CIRP Journal of Manufacturing Science and Technology* 38 (2022): 473-490. [IF: 3.602]
17. **D. Selwyn Jebadurai**, and **A. Arul Jeya Kumar**. "Influence of chopped fibers on the interfacial bonding of glass fiber reinforced epoxy skin/polyurethane core in a sandwich composite." *Polymer Composites* (2022). [IF: 3.531]
18. T. Magesh, G. Devi, and **T. Lakshmanan**. "Measurement and simulation of power quality issues in grid connected wind farms." *Electric Power Systems Research* 210 (2022): 108142. [IF: 3.387]
19. **S. Oliver Nesa Raj** and **S. Prabhu**. "AFM Analysis on Surface Roughness of Single Crystal Silicon Machined with Carbon Nanotubes Reinforced Composite Micro Grinding Wheel." *Silicon* (2022): 1-16. [IF: 2.670]
20. **N. Harshavardhana**, **S. P. Sundar Singh Sivam**, Gulshan Kumar, and Ashish Kumar Saxena. "A study on microstructure and recrystallization kinetics on low deformed pure ETP copper." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* (2022): 14644207221096543. [IF: 2.663]
21. **S. P. Sundar Singh Sivam**, R. Rajendran, and **N. Harshavardhana**. "Effect of cryo-rolling on mechanical properties and microstructure of pure copper." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* (2022): 14644207221025060. [IF: 2.663]
22. Nikhil Thawari, Chaitanya Gullipalli, Aayush Chandak, **Jitendra Kumar Katiyar**, and T V K Gupta, In-process Monitoring of Distortion and Temperature Analysis in multi-layer Laser Cladding of Stellite 6 and Inconel 718 alloys, *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*. 2022 [IF: 2.610]
23. Samiappan Dhanalakshmi, Praveen Nandini, Sampita Rakshit, Paras Rawat, Rajamanickam Narayanamoorthi, Ramamoorthy Kumar, and **R. Senthil**. "Fiber Bragg grating sensor-based temperature monitoring of solar photovoltaic panels using machine learning algorithms." *Optical Fiber Technology* 69 (2022): 102831. [IF: 2.530]
24. **S. Balaji**, Natrayan Lakshmaiya, Dhivagar Ramasamy, and Yuvarajan Devarajan. "Detailed analysis on engine operating in dual fuel mode with different energy fractions of sustainable HHO gas." *Environmental Progress & Sustainable Energy* (2022): e13850. [I.F: 2.413]
25. **Pankaj Kumar**, S. Narendran, V. M. Raaghavendhar, and **Piyush Sharma**. "Numerical and Experimental Study of Heat Transfer of Li-Ion Battery Pack." *Heat Transfer Research* 53 (2022). [IF: 2.41]
26. S. Vignesh and **U. Mohammed Iqbal**. "Preparation and characterization of bio-based nano cutting fluids for tribological applications." *Journal of Dispersion Science and Technology* (2022): 1-13. [IF: 2.262]
27. **S. Manikandan** and **K. Duraivelu**. "Vibration-Based Fault Diagnosis of Broken Impeller and Mechanical Seal Failure in Industrial Mono-Block Centrifugal Pumps Using Deep Convolutional Neural Network." *Journal of Vibration Engineering & Technologies* (2022): 1-12. [IF: 2.33]
28. **R. Manoj Samson**, Ashvin Sridhar, R. Ranjith, Solomon Jenoris Muthiya, Joshuva Arockia Dhanraj, Murgayya S. Basavankattimath, and Agegnehu Shara Shata. "Experimental Investigation of Heat-Treated Tool on Wire Electric Discharge Machining of Titanium Alloy (Ti-6Al-4V)." *Advances in Materials Science and Engineering* 2022 (2022). [IF: 2.098]
29. **A. Sathishkumar** and **M. Cheralathan**. "Influence of functionalized carbon flake on phase change characteristics of deionized (DI) water for cool thermal storage system." *Fullerenes, Nanotubes and Carbon Nanostructures* (2022): 1-11. [IF: 2.060]

30. Avinash Kumar, Anuj Kumar Shrama, T. V. K. Gupta, and **Jitendra Kumar Katiyar**. "Influence of hexagonal boron nitride additive nanocutting fluid on the machining of AA6061-T6 alloy using minimum quality lubrication." Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering (2022): 09544089221110980. [IF: 1.822]
31. **R. Saravanakumar, T. Rajasekaran**, C. Pandey, and M. Menaka. "Influence of Tool Probe Profiles on the Microstructure and Mechanical Properties of Underwater Friction Stir Welded AA5083 Material." Journal of Materials Engineering and Performance (2022): 1-18. [IF: 1.819]
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33. **I. Aatthisugan, R. Murugesan**, and T. V. V. L. N. Rao. "Influence of boron carbide content on dry sliding wear performances of AZ91D magnesium alloy." Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (2022): 13506501221109033. [IF: 1.818]
34. **I. Aatthisugan**, and **R. Murugesan**. "Optimization of wear and friction behaviour of AZ91D–B4C– Gr hybrid composite under dry sliding conditions." Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (2022): 13506501221113161. [IF: 1.818]
35. D. Bhanu Priya, **Murali Subramaniyam**. "Fatigue due to smartphone? Investigating research trends and methods for analyzing fatigue caused by extensive smartphone usage: A review." Work: A Journal of Prevention, Assessment & Rehabilitation 72(2022): 637-650. [IF: 1.803]
36. Sai Kiran Jakkula, Raja Venkata, and **S. Prabhu**. "Fuzzy logic expert system with multi-objective optimization of carbon nanotube infused nanopaint surface characteristics analysis using IRB 1410 robot." Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science (2022): 09544062221086770. [IF: 1.762]
37. Deepak K Prajapati, P. Ramkumar, and **Jitendra Kumar Katiyar**. "Research on tribological performance of piston ring/liner conjunction considering non-Gaussian roughness and cavitation." Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (2022): 13506501221108126. [IF: 1.674]
38. M. Ravichandran, M., S. V. Alagarsamy, V. Dhinakaran, Mohammed Abdul Samad, and **Jitendra Kumar Katiyar**. "Optimization of tribological process parameters of titanium carbide reinforced copper matrix composites." Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (2022): 13506501221085055. [IF: 1.674]
39. **Jitendra Kumar Katiyar**, Tomoko Hirayama, and T. V. V. L. N. Rao. "Influence of engineering tribology on society." Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (2022): 13506501221093441. [IF: 1.674]
40. Sanjeev Kumar, **Jitendra Kumar Katiyar**, Uttam Acharya, Subash Chandra Saha, and Barnik Saha Roy. "Influence of tool rotational speed on Microstructure and Mechanical Properties of Al-Li Alloy using Friction Stir Welding." Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering (2022): 09544089221080823. [IF: 1.620]
41. Shardul Vikram Singh [UG student], Pankaj Kumar. "Study of flow characteristics of a savonius turbine inside nozzle diffuser duct". Journal of Engineering Research. [IF: 062]
42. **R. Senthil**. "A technical note on integrating thermal energy systems into solar photovoltaic panels toward a circular economy." Renewable Energy Focus 42 (2022): 97-100. [SNIP: 1.587]

43. **A. Vijaya** and **C. Shravan Kumar**. "Vibration Damping Analysis for Drilling Process Using MR Fluid-Assisted Worktable." Journal of The Institution of Engineers (India): Series D (2022): 1-8. [SNIP 0.678]
44. **V. Veeranaath**, Marut Nandana Mohanty, Aniket Kumar, and Pranjal Kumar. "ANN modeling of the significance of constraints in turning superalloys using coated PCBN tools." Materials Today: Proceedings (2022). [SNIP: 0.657]
45. **V. Veeranaath**, Uddhav Daga, Pranay Sharma, and Yuvraj Kumar. "Analysis of the upshot of heat treatment on physical and mechanical behavior of aluminum hybrid composites." Materials Today: Proceedings (2022). [SNIP: 0.657]
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48. R. Monika, **R. Senthil**, R. Narayanamoorthi, and Dhanalakshmi Samiappan. "Perceptual Variance Weight Matrix based Adaptive Block Compressed Sensing for Marine Image Compression." In OCEANS 2022-Chennai, pp. 1-5. IEEE, 2022. [SNIP: 0.505]
49. **A. Vijaya**, N. Kannan, M. Palaniappan, and G. S. Kumar. "Strain Measurement of Aluminium in Tensometer Using Digital Image Correlation (DIC)." In Recent Trends in Design, Materials and Manufacturing, pp. 135-148. Springer, Singapore, 2022. [SNIP: 0.393]
50. M. Ramnaath, D. Bhanu Priya, Se Jin Park, and **Murali Subramaniyam**. "The experimental study on change in lifting capacity and isometric muscle strength due to aging among Korean population." In AIP Conference Proceedings, vol. 2405, no. 1, p. 020012. AIP Publishing LLC, 2022. [SNIP: 0.314]
51. D. Mounika, D. Bhanu Priya, Se Jin Park, **Murali Subramaniyam**. "A Study on Balance and Foot Pressure Distribution while Carrying Load in Different Postures". In AIP Conference Proceedings, 2405, no. 1, p. 020013, AIP Publishing LLC, 2022. [SNIP: 0.314]
52. Anupam Jyoti, Shreya Anilkumar, Ashokkumar Devaraj, **D. Raja**, and Varshini Karthik. "Finite element analysis on clavicle bone during normal and extended range of motions under loading conditions." In AIP Conference Proceedings, vol. 2405, no. 1, p. 020010. AIP Publishing LLC, 2022. [SNIP: 0.314]
53. **E. Vijayaragavan**, Faizan Danish Nachan, Sohail Ahamed, and Susobhan Biswas. "Rectification of Defects Occurring in the Gate Valve Manufacturing Process by Implementing Six Sigma Methodology." ECS Transactions 107, no. 1 (2022): 3909. [SNIP 0.268]
54. Suriya Devalan AR, and **E. Vijayaragavan**. "Liquid Cooled Microchannel Heat Sink Based Peltier Solar Atmospheric Water Generator." ECS Transactions 107, no. 1 (2022): 5577. [SNIP 0.268]
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56. Pushpal Das, **E. Vijayaragavan**, Abhishek Sarkar and Santhosh kumar R, "Envi-city: Vision of a Sustainable Smart City of the Future", ECS Transactions 107, no. 1 (2022): 11007. [SNIP 0.268]

Book / Book Chapter Published [Faculty and Students]

1. Tanvi Pal, **Sumit Pramanik**, Kapil Dev Verma, P. K. Manna, Kamal K. Kar, "Fly Ash reinforced polypropylene composites", In: Handbook of Fly Ash (Elsevier Reference Collection), Editor: Kamal K. Kar, Page: 243-270, Year: 2022, Elsevier, ISBN: 978-0-12-817686-3.
2. Archit Rai and **Sumit Pramanik**, "Fuel Cell Utilization for Energy Storage", In: Renewable Energy for Sustainable Growth Assessment (RESGA-2021), (Ed) Nayan Kumar and Prabhansu, Wiley-Scrivener Publishing, ISBN 9781119785361, Chapter 14, In Print: April 29, 2022. (<https://scrivenerpublishing.com/cart/title.php?id=672#desc>).
3. Gokul Raghavendra Srinivasan, Safak Yildizhan, Shalini Palani, **T. Lakshmanan** and Ranjitha Jambulingam "Molecular Contribution of Fatty Acid Esters in Biodiesel Fueled CI Engines". Intechopen, 2022.
4. **Jitendra Kumar Katiyar**, Ranjeet Kumar Sahu and TCSM Gupta, Sustainable Lubrication, CRC Press, Taylor and Francis Group
5. **Jitendra Kumar Katiyar**, Vinay Panwar, Neha Ahlawat, Nanomaterials for Advanced Technologies, Springer Nature Singapore. 2022. (ISBN: 978-981-19-1384-6)
6. **Jitendra Kumar Katiyar** and Mohammed Abdul Samad, Tribology in Sustainable Composites, CRC Press, Taylor and Francis Group. (ISBN 978-103-22-2040-6)



Facilities inclusion/updates

1. A total of 60 no's of 32 GB computers and 15 no's of 16 GB computer were added to the department and were distributed to various laboratories of the department.

2. In CAD Lab

- ANSYS software version updated from Release 19.0 to 2022 R1
- ANSYS LS Dyna software facility included
- New 40 KVA UPS facility installed

3. In Drafting Lab: 300 no's Logitech C270HD web camera added

4. Thermal Lab: Variable speed control and a new test section with additional features were added to the existing wind tunnel & Latest AVL 8 gas analyzer installed.

Student Exchange Program

SRMIST, Kattankulathur and MIT World Peace University, Pune

To enhance the relationship with peers, our SRMIST, Kattankulathur and MIT-WPU, Pune jointly initiated the student exchange program under the MoU. A group of students from both institutions was mutually exchanged and underwent special course training for a three-week period from 11th July to 30th July 2022. Our 24 final-year mechanical Engineering students went through a course on “Vibration and Acoustics” offered in the MIT- WPU, Pune. In a similar way, a total of 27 students from MIT-WPU, Pune learned a course on “Biomechanics” offered in the department of Mechanical Engineering, SRMIST, Kattankulathur. During the program, various theory lectures practical sessions, yoga sessions, industrial visits and sightseeing are arranged. It helps the students to gain knowledge through various activities. Overall Program Coordinator: **Dr. A. Arul Jeyakumar.**



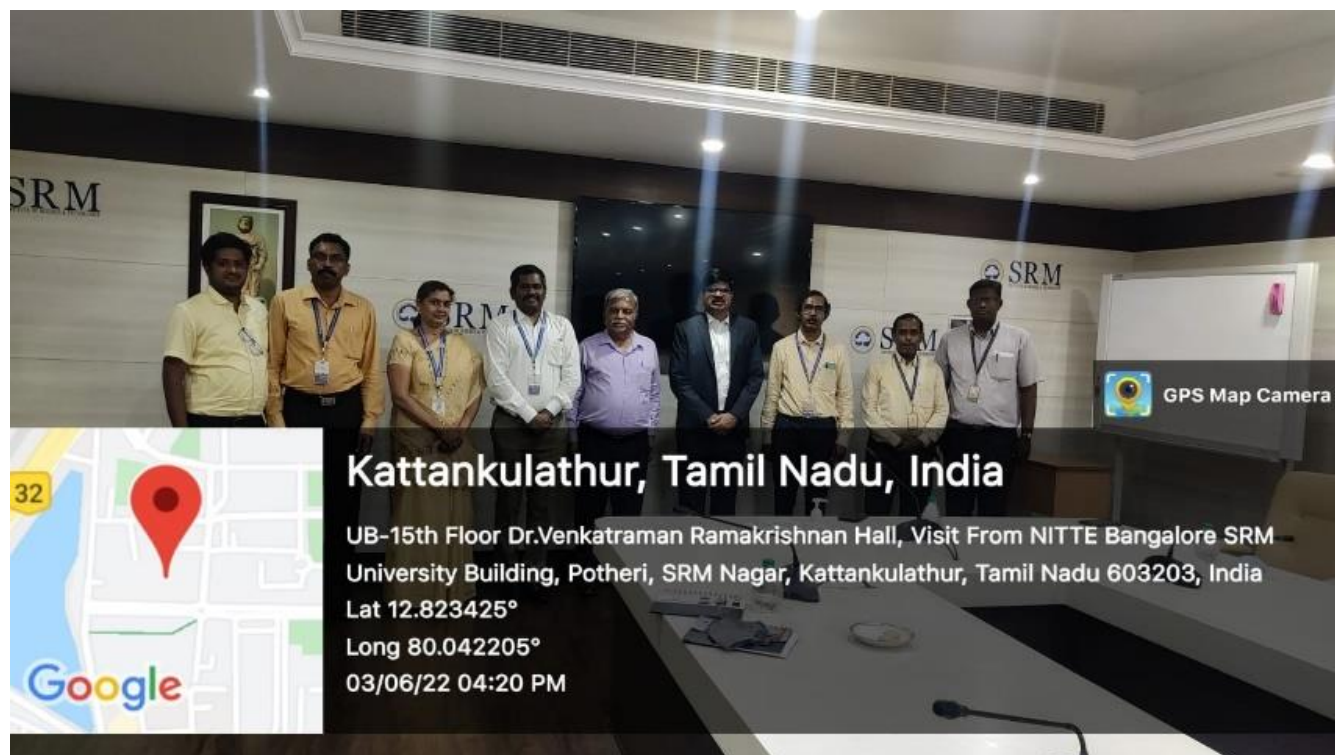
<MIT-WPU, Pune students at SRMIST, Kattankulathur>



< SRMIST, Kattankulathur students at MIT-WPU, Pune >

Visitors to the Department

1. NITTE Meenakshi Institute of Technology, Bengaluru



A team of senior professors headed by Dr. G. Raghava, Former Chief Scientist, CSIR-SERC from NITTE Meenakshi Institute of Technology, Bengaluru visited our department and central facilities on 03.06.2022. They are willing to have MOU with our institution to do joint research, apply for funding, students internships, projects, sharing the resource, etc. Coordinator: **Dr. G. Balaji**.

2. Evochef Team visit to SRMIST

A team headed by Mr. VMLS Senthilnathan and Gnanaselvan Sivanayar visited SRMIST, Chennai. Demonstration of “Evochef an automatic Dosa printer” followed by interaction with SRMIST team consisted of Prof. Leenus Martin, Dr. Shantanu Patil, Prof. G. Murali, Dr. Easwaran Parthasarathy, **Dr. E. Vijayaragavan, Dr. R. Murugesan, Dr. S. Manikandan**. Looking forward for collaborative work in the future.



Industry Visit [Faculty and Students]

1. Industry Visit: Crown Technologies and Saeahan Stamping Private Limited

A day to cherish for the Second and Third year Mechanical Engineering students of SRM IST Chennai. Yes being back to physical classes from ONLINE, the first Industrial visit post covid19 pandemic. Thank you **Shri. Veera ragavan**, Managing Director Crown Technologies for an interactive session and accompanying the students during the visit in the Shop floor explaining the Cathode Electric Deposition and powder coating process. Students also gained knowledge in waste water treatment to satisfy Zero Discharge policy. Special thanks to **Mr. V Ravichandran** and team from SAEHAN STAMPING PRIVATE LIMITED for permitting our students to have a visit to their machining and Press shop on 12 May, 2022. Coordinator: **Dr. E. Vijayaragavan**



2. Diamond Engineering (Chennai) Private Limited (DECPL) and Emerald Engineering

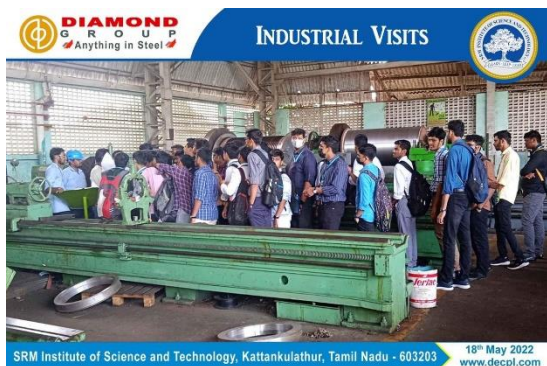
A total of 94 members (88 First year students and Six faculty) of the Department of Mechanical Engineering visited Diamond Engineering (Chennai) Private Limited (DECPL) and Emerald Engineering on 18 May, 2022. Anything in Steel' was the maxim coined by Mr. P. Mohanraj (CMD, Diamond Group), and has been the guiding principle since 1987. Under his excellent and innovative leadership, Diamond Group is now competing for the World's No.1 position in the fabrication industry by providing qualitative services to its clients. Coordinator: **Dr. E. Vijayaragavan**
Faculty participated: Dr. R. Ambigai, Dr. S. Murali, Mr. N. Karthikeyan, Mr. C. Arunraj, Mr. S. Senkathir.



<At Emerald Engineering, Diamond Group, Pudupakkam>



<At Diamond Engineering, Diamond Groups, Mambakkam>



<At Emerald Engineering, Diamond Group, Pudupakkam>



<At Diamond Engineering, Diamond Groups, Mambakkam>

3. Industry visit: The Ramco Cements Limited, Salavakkam, Kanchipuram

A total of 30 members (14 first year, 11 second year students and five faculty) of the Department of Mechanical Engineering visited Ramco Cements limited, Salavakkam, Kanchipuram on 18/May/2022. Coordinator: **Dr. P. Susai Manickam**. Faculty participated: Dr. T. Rajasekaran, Dr. I. Infanta Mary Priya, Dr. S. Karuppudaiyan, Mr. S. Balamurugan.



<At Ramco Cements Limited, Salavakkam, Kanchipuram>

4. Industry visit: Wonjin Autoparts India Pvt Ltd.,

A total of six members headed by **Prof. T. Rajasekaran** from our Department of Mechanical Engineering visited “Wonjin Autoparts India Pvt Ltd., Maraimalai Nagar on 31 May, 2022. During the visit, the following points were discussed: industrial visit and internship opportunity for faculty and students. They have accepted our request to extend their support for the pyrolysis research. Faculty: **Prof. T. Rajasekaran, Dr. N. Harshavardhana, Mr. R. Saravanakumar**



<At Wonjin Autoparts India Pvt Ltd, Kanchipuram>

5. Industry visit: Rathi Rubber Pvt Ltd., Gummidipoondi

A total of three members headed by **Dr. G. Balaji** from our Department of Mechanical Engineering visited Rathi Rubber Pvt Ltd., Gummidipoondi on 11 June, 2022. The purpose of the visit to understand the current pyrolysis process practiced in the industry. Also, the company gifted us waste tyre pyrolyzed oil for the research purpose. They have accepted our request to extend their support for the pyrolysis research. Faculty: **Dr. G. Balaji**



<At Rathi Rubber Pvt Ltd., Gummidipoondi>

Guest lecture delivered by our faculty

1. **Dr. R. Senthil Kumar** delivered a Guest Lecture given on the topic "Laminar Flow in Air Cooled Condenser: A Case Study" organized by the Department of Mechanical Engineering, SRMIST, Kattankulathur, and Chennai-603 203, on January 04, 2022.
2. **Dr. R. Senthil** delivered a Guest Lecture on the topic of "Solar Energy for Sustainable Development", organized by Gyan Sagar College of Engineering, Sagar, M.P.-470228 on 24th Jan 2022.
3. **Dr. T. Lakshmanan** delivered a Keynote lecture in the 5th International conference for Phoenixes on Emerging Current Trends in Materials, Manufacturing, Management Practices and Construction Technologies on March 26 2022 Organized by the Department of Mechanical Engineering department, Panimalar engineering college, Chennai.
4. **Dr. T. Lakshmanan** delivered a Guest lecture on the topic Transforming your Project into Publication with Design Thinking Concept Organized by SIIEC , SRMIST , KTR, on February 23, 2022, Kattankulathur.
5. **Dr. Jitendra Kumar Katiyar** delivered a Keynote Lecture on the topic "Influence of heat treatment Process on high-velocity oxy-fuel sprayed tungsten carbide-cobalt coatings" in the International Conference on THIN-FILM Processing and Application (ICTFPA-2022, organized by Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa, on 4-5 March, 2022.
6. **Dr. Jitendra Kumar Katiyar** Delivered an Invited Talk in one-week Faculty Development Program (FDP) through online mode on Modern Trends in Manufacturing and Thermal Sciences (MTMTS-2022), National Institute of Technology Delhi, April 4-10, 2022.
7. **Dr. G. Kasiraman** delivered an On line Lecture on Bio fuel Combustion in CI Engines at University of Technology and Applied Sciences, Thri, Sultanate of Oman on 14.04.2022

8. **Dr. Jitendra Kumar Katiyar** delivered a Guest Lecture on the Topic "Advanced Research in Mechanical Engineering" on 10 May, 2022, Centre for Advanced Studies, Dr. APJ Abdul Kalam Technical University, Lucknow, India.
9. **Dr.K.Duraivelu** delivered a Guest Lecture on the topic "5S - Lean workplace" Organized by University of Technology and Applied Sciences, Salalah, Oman on May 17, 2022.
10. **Dr.A.Vijaya** delivered a Guest Lecture on the topic Automation in Measurement Organized by HVF Institute of Learning, AVADI on May 18, 2022.
11. **Dr. Jitendra Kumar Katiyar** delivered a Guest Lecture on the topic "Sustainable Composites: A Tribo-mechanical Viewpoint", organized by The Assam Kaziranga University Jorhat, Assam India on May 23, 2022.
12. **Dr.Vignesh** delivered a Guest Lecture given on the topic "Comprehensive Disaster Management" Organized by College of Science and Humanities, SRM IST, on June 21, 2022, Chennai, Tamil Nadu.
13. **Dr. N. Harshavardhana** delivered a Guest Lecture given on the topic "Recent Advancement in metal additive manufacturing" organized by Department of Mechanical Engineering Kings Engineering College Sriperumbudhur from 27/6/2022 to 02/07/2022.

International/National Conference Paper Presentation [Faculty and Students]

1. **P.V.Jeyakarthikeyan**, S.Vengatesan and Sundararajan Natarajan, "Weighted Richardson extrapolation based Rapid Quadrature for Quadrilateral Elements" in 6th National Finite Element Developers'/FEASTSMT Users' meet organized by Vikram Sarabhai Space Centre, ISRO Thiruvananthapuram
2. **R. Saravanakumar**, "Design and fabrication of fixtures for friction stir welding" in ICAME 2022, organized by the department of mechanical engineering, SRMIST, Kattankulathur on 24th-26th march 2022.
3. **R. Saravanakumar**, "Design and fabrication of fixtures for underwater friction stir welding process" in ICAME 2022, organized by the department of mechanical engineering, SRMIST, Kattankulathur on 24th-26th march 2022.
4. **A. Sathishkumar**, "Study on energy-storage density of DI water based nano-PCM for cool thermal storage system without using surfactant" ICAME2022 organized by department of mechanical engineering, SRMIST, Kattankulathur on 24th to 26th March 2022.
5. Obada Omar Issa, [RC2213002011025], **V. Thirunavukkarasu**, "Numerical Study on Different Receiver Configurations for a Solar Parabolic Dish Concentrator" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
6. Ramnaath M [Second Year M. Tech Robotics], **Murali Subramaniyam**, Seung Nam Min, "Development of Low-cost Interface Pressure Measurement Mat for Wheelchair Occupant," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4304.
7. D. Mounika [Second Year M. Tech Robotics], N. Arun, **Murali Subramaniyam**, Seung Nam Min, "Development of IoT Based Insole for Measuring Foot Pressure Distribution using FSR Sensor," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4303
8. Krishna Darshan, B Rajaram, D Jagadish, **R Ambigai**, "Heat Treatment and its effects on Aluminium alloys", in 4th International Conference on Advances in Mechanical Engineering (ICAME - 22), 24th to 26th March 2022@ SRM University, Chennai

9. Rahul Ashok, Neelesh Edupuganti, **R Ambigai**, “Heat Treatment and Tribological behaviour of Hypo and Hyper Eutectic Aluminium alloy”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
10. D. Bhanu Priya [Research Scholar], **Murali Subramaniyam***, "A Review Study on Cervical Spine (C1-C7) Biomechanical Analysis," 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022. Paper ID: 4691.
11. Dhayanidhi Kesavan [PA2013002013007], **R. Senthil Kumar**, Piramanandhan Marimuthu, "Numerical Investigation of Thermal and Pressure drop Characteristics of Cold Plate with Various Pin-Fin Geometries" in Dr. Paarivendhar Research Colloquium (DPRC)-2022 at SRMIST- Chennai, 24th - 26th March, Paper Id: 2022DPRC158-MECH 048.
12. Varun Kumar Lakhota [RA1911025010016], S. Hariharan [RA1811002010270], and **R. Senthil Kumar**, “Computational Analysis on Heat Transferring ability of Elliptical Lithium-Ion cells for Different Working fluids”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4366.
13. S.Hariharan [RA1811002010270], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, “Computational Analysis for Flow over a Heated Square Cylinder by Minimising the Bluffness”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4179.
14. Srinivasan Venkatesh [RA1812031010005], Shaik Subhani [RA1812031010005] and **R. Senthil Kumar**, “Numerical Investigation on Performance Enhancement of Solar Still by Optimising Baffle Influence”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4049.
15. Srinivasan Venkatesh [RA1812031010005], Shaik Subhani [RA1812031010005] and **R. Senthil Kumar**, “Numerical investigation on natural convection analysis on tandem heated obstacles inside a square enclosure”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4026.
16. Anjali Sinha [RA2011002010025], Srinivasan Venkatesh [RA1811002010392] and **R. Senthil Kumar**, “Performance Enhancement of Solar Stills: A review”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4226.
17. Jivitesh Punj [RA1811002010388], Subhani Shaik [RA1812031010005] and **R. Senthil Kumar**, “Numerical investigation on natural convection analysis on tandem heated triangular cylinders inside a square enclosure”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4027.
18. Dhayanidhi Kesavan [PA2013002013007], **R. Senthil Kumar**, Piramanandhan Marimuthu, “Heat transfer performance of air-cooled pin-fin heat sinks: A review”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4048.
19. Hemant Chatterji [RA1811002010197], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, “Numerical Investigation of Flow around a bluff body with varying geometry with downstream control cylinders”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4199.
20. B. Sivakumar [RA1912031010003], S. Navakrishnan [RA1912031010002], **R. Senthil Kumar**, “Establishment of Easement in Energy Efficient Building Using Novel Air Handling Techniques: A Review”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4771.

21. Bhargav Chowdary Ghattamaneni [RA1811002010143], Hemant Chatterji [RA1811002010197], Amit Varakhedkar [RA161102010404] and **R. Senthil Kumar**, “Effect of Heat and Flow Properties on the System due to Change in Cross-Section of Control Cylinder”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper Id: ICAME4201.
22. Varun Viswanathan [RA1811002010207], Hemant Chatterji [RA1811002010197], Amit Varakhedkar [RA161102010404] and **R. Senthil Kumar**, “Forced-air cooling of electronic components in electric vehicles”, 4th International Conference on Advances in Mechanical Engineering (ICAME 2022) at SRMIST- Chennai, 24th - 26th March, Paper ID: ICAME4368.
23. Jivitesh Punj [RA1811002010388], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, “Numerical analysis of Tandem circular cylinder arrangement with incident face optimization”, SRM Research Day, 28th February 2022, Recognition in research day; Paper id:ME20.
24. S.Hariharan [RA1811002010270], Amit Varakhedkar [RA1611002010404] and **R. Senthil Kumar**, “Computational study on heated bluff bodies under forced cooling”, SRM Research Day, 28th February 2022, Paper ID: ME10.
25. Varun Kumar Lakhota, S. HariHaran and **R. Senthil Kumar**, “Thermal Hydraulics Analysis for Square cylinders with Different Corner Modifications”, SRM Research Day, 28th February 2022, Paper ID: ME32.
26. Srinivasan Venkatesh [RA1812031010005], Shaik Subhani [RA1812031010005] and **R. Senthil Kumar**, “Numerical investigation on performance enhancement of solar still by optimising baffle influence”, SRM Research Day, 28th February 2022, Paper ID: ME17.
27. Dhayanidhi Kesavan [PA2013002013007], **R. Senthil Kumar** and Piramanandhan Marimuthu, “Experimental and numerical investigation to predict system operating point in forced convective equipment design”, SRM Research Day, 28th February 2022, Paper ID: ME14.
28. Bhanu Priya D [Research Scholar], **Murali Subramaniyam**, “Study on the Effect of Prolonged Smartphone usage and its Associated Health Risk”, SRM Research Day, 28th February 2022, Paper ID: ME-031.
29. Bhanu Priya D [Research Scholar], **Murali Subramaniyam**, “Low-cost Methodology to Measure Visual Fatigue induced due to Digital Devices”, Dr. Paarivendhar Research Colloquium (DPRC) 2022 held on 24 – 26 March, 2022 at SRMIST, Chennai.
30. **Joji Johnson** and **S. Manikandan** “A Radiation modelling of Bifacial Photovoltaics”, Dr. Paarivendhar Research Colloquium (DPRC) 2022 held on 24 – 26 March, 2022 at SRMIST, Chennai.
31. **N. Viya Krishna** and **S. Manikandan** “A Radiation modelling of Bifacial Photovoltaics”, Dr. Paarivendhar Research Colloquium (DPRC) 2022 held on 24 – 26 March, 2022 at SRMIST, Chennai.
32. **I. Infanta Mary Priya** & Mohammed Inzamam, "The Design and development of a Soft Robotic Gripper" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
33. Krishnaprasad S Menon and **R. Ambigai**, “The Tribological and Rheological evaluation of Neem Seed oil as an environment-friendly lubricant” 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
34. **Muralidharan S, Mohammed Iqbal U**, “Experimental study and optimization of process variables in Multi-angular twist extrusion (MATE) of Cu-cr-zr alloy” 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
35. Bharathan B, **Mohammed Iqbal U**, “Optimization of cold extrusion die process parameters using finite element analysis” 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.

36. Pradeep G, **Mohammed Iqbal U, Manoj Kumar V**, "Development of Terrestrial Mobile Robot for mining application with optimized selection of path planning using Lidar" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
37. **Dr. G. Balaji**, Dinesh Kumar K S, Prem Chandra K, Praveen Babu K, "Mitigating Emission on a CI Engine using a Catalytic Converter" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
38. **G.Balaji, D.Premnath**, D.V.Dheerajaisai, S.Visva Varadhan [RA1811002010006], S.Naren Kaarthick, "Evaluation of a new low-cost CO2 trapper material for the biodiesel fuelled diesel engine", 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
39. **G.Balaji**, R.Shenir, T.Samuel Mannish, N.S.Likith Charan, "Experimental Investigation of Jatropha Oil blends on CRDI engine by varying fuel injection pressures", 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
40. S.Premkumar and **G.Balaji**, "NO reduction in a diesel engine exhaust using ceria silica based synthesized catalyst", 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
41. **K. Suresh Kumar, G. Balaji**, Ishan Mir [RA1811002010463], Samreen Khan, Aashiq Mohammed [RA1811002010474]. "Experimental Investigation on Emission Reduction in Compression Ignition Engines", in ICAME 2022, SRMIST.
42. **K. Suresh Kumar, G.Balaji**, Syed Mubashshir Husain [RA1811002010533], Ette Kushal Vardhan Reddy, Banda Ganesh. "Experimental Investigation on a Zeolite 5A Based Catalytic Converter for Emission Reduction in a Watermelon Seed Oil Biodiesel Fuelled CI Engine", in ICAME 2022, SRMIST.
43. **V Veeranaath**, Suparno Sengupta, Rohit Joseph, "Investigation on the Effect of Heat Treatment on Characteristics of ZrC and Bagasse Ash Reinforced Aluminum Hybrid Composites" in 4th International Conference on Advances in Mechanical Engineering (ICAME-2022) organized by Department of Mechanical Engineering, SRMIST, Kattankulathur, 24th - 26th March 2022
44. **V Veeranaath**, Mobashir, Ravi Shankar, "Analysis of Mechanical and Physical Behavior of Al₂O₃ and Fly Ash Reinforced Aluminum Hybrid Composites" in 4th International Conference on Advances in Mechanical Engineering (ICAME-2022) organized by Department of Mechanical Engineering, SRMIST, Kattankulathur, 24th - 26th March 2022
45. **Dr.A.Vijaya**, "NAYE BAYES CLASSIFIER WITH FEATURE RANKING FOR IMAGE CLASSIFICATION TO IDENTIFY DEFECTIVE MACHINE PARTS in the 4th INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
46. **Dr.A.Vijaya**, "DESIGN AND SIMULATION OF FORMABILITY ANALYSIS OF SHEET METAL USING ERICHSEN CUPPING TEST" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
47. **Dr.A.Vijaya**, "OMNI-DIRECTIONAL MATERIAL HANDLING CART" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
48. K.Jegadeesan and **Dr.Shubhabrata Datta**, "Design of laminated composite plate for optimum ballistic impact resistance: A Finite element approach" 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.

49. Sethuraman A, **Geethapriyan T***, T.Lakshmanan, Arun Raj AC, “A review on the effect of process parameters in laser beam machining process” 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
50. **T.Magesh**, G.devi, **T.Lakshmanan**, Surekha, “Performance of a PV Module with Poly Methyl Methacrylate Filter” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
51. Shudhanshu Kumar Pathak [RA1811002010427], Shounak Das [RA1811002010442] **Dr T. Lakshmanan**, “Performance Analysis of Dual Fuel Engine by Inducting Hydrogen Produced by Solar Energy” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022
52. Ibrahim Lubaib Valappil [RA1811002010523], Alen Jude Seemanthy [RA1811002010522], **Dr.T. Lakshmanan**, “Thermal performance enhancement of Solar CPC Collector for water heating applications” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
53. **Mr. M. Sivashankar**, "Experimental investigation on the thermal performance of low-concentrated photovoltaic module using heat sink with phase change materials" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
54. **Vamsi Krishna dommeti** “Effect of surface modification by tantalum and strontium ions on hydroxyapatite coated titanium substrate using sol-gel technique” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
55. **Dr.K.Duraivelu**, "Digital transformation in manufacturing industry - A comprehensive study" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
56. Mr.I.Aatthisugan and **Dr.R.Murugesan**, "Microstructure and mechanical properties of stir cast AZ91D composites reinforced with boron carbide particles" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
57. **Dr. S. Karuppudaiyan** and Anbuvalanraj, “Evaluation of mechanical properties of 3D-Printing materials for development of Ankle foot orthoses to treat foot drop conditions using Finite element Analysis” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
58. **Dr. S. Karuppudaiyan**, Manish Kumar E and Vinolin J K, “Finite element Analysis of micro-architectural scaffold structures designed based on fused deposition modelling system process parameters -FUNMAT-HT -3D printer” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
59. **Mr. Shakthivel**, “Optimization of Machining Parameters for Lathe using GA and PSO” in 2nd International Conference on Recent Trends in Engineering Technology and Management 2022 organized by Christ the King engineering College in association with Organization of Science & Innovative Engineering and Technology (OSIET), Chennai, India"
60. Mr.Souvik Roy, **Dr.V. Magesh** and Dr. P. Harikrishnan presented a paper titled "Finite Element analysis of Anatomical Defect Cleft Skull Model" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
61. **Dr S. Balaji**, “Design of HHO Gas Generation System and Utilization of HHO Gas in a Dual Fuel CI Engine” in 3rd Annual IISER Pune - KPIT Conference on Energy & Mobility and KPIT Shodh Award.

62. **Mr. S. Shakthivel**, “Optimization of Machining Parameters of Vetiver fiber reinforced Epoxy resin using Taguchi & RSM Techniques” in National Conference (Online) on Recent Trends in Engineering, Technology & Management (NCRTEM-2K22) organized by ND College of Engineering and Research Centre, Lasalgaon, Yeola, Maharashtra in Collaboration with Conference World and IARDO between 26th -27th May 2022
63. **Dr. I. Infanta Mary Priya**, "Experimental investigation and wear behaviour of Ti6AlN alloy" in International Conference on Materials, Computing and Communication Technologies organized by Annai Velankanni College of Engineering, Pottalkulam on 20th June 2022.
64. Sankar Ganesh and **R. Ambigai**, “Optimization of quadcopter Design and Fabrication of Drone Component by 3D Printing Method” in International Conference on Intelligence in Industrial Automation (ICIIA 22) , held on 15th June 2022 organised by department of Mechanical and Mechatronics Engineering, Velammal Institute of Technology.
65. **Dr.K.Duraivelu**, “Experimental investigation on ecofriendly lubricant oil mixed with SiO₂, TiO₂ and Al₂O₃ nano additives” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
66. **V. Thirunavukkarasu**, “Effect of Focal Length on the Solar Radiation Distribution for Solar Parabolic Dish Concentrator”, Dr. Paarivendhar Research Colloquium (DPRC) 2022 held on 24 – 26 March, 2022 at SRMIST, Chennai.
67. **Joji Johnson** and **S. Manikandan**, “Radiation Modelling of Bifacial Photovoltaics”, SRM Research Day, 28th February 2022 at SRMIST.
68. **Barathraj R K**, Anurag Goyal and Lakshit Pargal “A Numerical Studies on Microchannel Heat Exchangers", SRM Research Day, 28th February 2022 at SRMIST.
69. **A. Sathishkumar** and **M. Cheralathan** “Effect of active multi-walled carbon nanotubes (MWCNT) on the energy storage density of DI water for cool thermal storage system”. SRM Research Day, 28th February 2022 at SRMIST.
70. **Sivashankar M** and **Selvam C**. "Experimental investigation on the thermal management of concentrated photovoltaics cells using phase change materials", SRM Research Day, 28th February 2022 at SRMIST.
71. **S. Ponsankar** and **Pankaj Kumar**. "Numerical Analysis of flow past Elliptical Cylinder with different Aspect Ratios", SRM Research Day, 28th February 2022 at SRMIST.
72. Kannan Jonathan Deepak [RA1811002010112], "Computational Study on Temperature Regulation of Solar PV Module with Phase Change Material" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
73. Apurv Verma [RA1811002010076], “Enhancement of Mechanical Properties of Sandwich Composites” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
74. Sreevathsan.P.S [RA1811002010460], Yuvaraj G R [RA1811002010459], “Modelling and Analysis of Metallic Foams for Heat Sink Application.” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
75. Mr.S.P Shibu Jeyanth [RA1911002010097], Yash Sameer Sunkle , Keerthana Dinesh, Aswin Suresh Kumar , Kunal Jain and Mahek Jagatbhai Dave, " Structural and Thermal analysis" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
76. Iftikhar Hussain [RA2011002010144] “Improving formability of copper by addition of graphite” in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.

MoU Activity

1. Activity with RANE NSK Steering System (P) Limited (Faculty Champion: Dr. Mohammed Iqbal)

1. M. Tech CAD student Mr. SAKTHI KRISHNAN (RA2012003010003) completed One year internship in RANE NSK Steering Systems Ltd.,
2. An industry sponsored project worth Rs. **6 lakhs** titled “Experimental and Numerical Investigation on driveline shaft from solid to hollow through cold drawing process” was sanctioned by RANE NSK on April 13, 2022. The project duration is 3 years. The Principal Investigator is **Dr. U. Mohammed Iqbal**.

2. Activity with Teeth “N” Jaws Center (Faculty Champion: Dr. V. Magesh)

1. **Dr. V. Magesh** (PI) submitted a project proposal titled "Development of Controlled force Orthodontic Debonding system" to SERB under Core Research Grant. (Budget: Rs.5,73,100/-).
2. Mr.Souvik Roy, **Dr. V. Magesh** and Dr. P. Harikrishnan presented a paper titled "Finite Element analysis of Anatomical Defect Cleft Skull Model" in 4th International Conference on Advances in Mechanical Engineering (ICAME 2022), SRM Institute of Science and Technology, Chennai, March 24-26, 2022.
3. Best Poster presentation award received for the project titled “Finite Element Analysis of Orthodontic Bracket-Archwire Segment” guided by **Dr. V. Magesh** through this MoU for the Minor project course.



3. Activity with CAPCP Benchmarking Services Private Limited

1. **Mr. Agilan S V [RA1811002010370]** completed his Internship on “On-Road Vehicle Testing and Analysis” during 08 March, 2022 to 13 June, 2022 at CAPCP Benchmarking Service Private Limited, Chennai (as a part of MoU with SRMIST)
2. **Mr. Pravesh C [RA1811002010411]** completed his Internship on “On-Road Vehicle Testing and Analysis” during 08 March, 2022 to 13 June, 2022 at CAPCP Benchmarking Service Private Limited, Chennai (as a part of MoU with SRMIST)

4. Activity with Valeo India Private Limited (Faculty Champion: Dr. E. Vijayaragavan)

A. Valeo – SRM Lecture Series 1: Lecture on Design for Manufacture

Centre for Lean And Six Sigma (CLASS) in association with Valeo India Private Limited; jointly organized the fourth session of Valeo – SRM Lecture Series on arranged a Guest Lecture on “Basic Mechanical Engineering” on 29 May, 2022, 08.00 to 09:30 PM IST. Resource Person: **Mr. Krishnamoorthy Narasimhan**, Technical Manager and Plastics Expert, Valeo India Private Limited. Coordinator: **Dr. E. Vijayaragavan**.

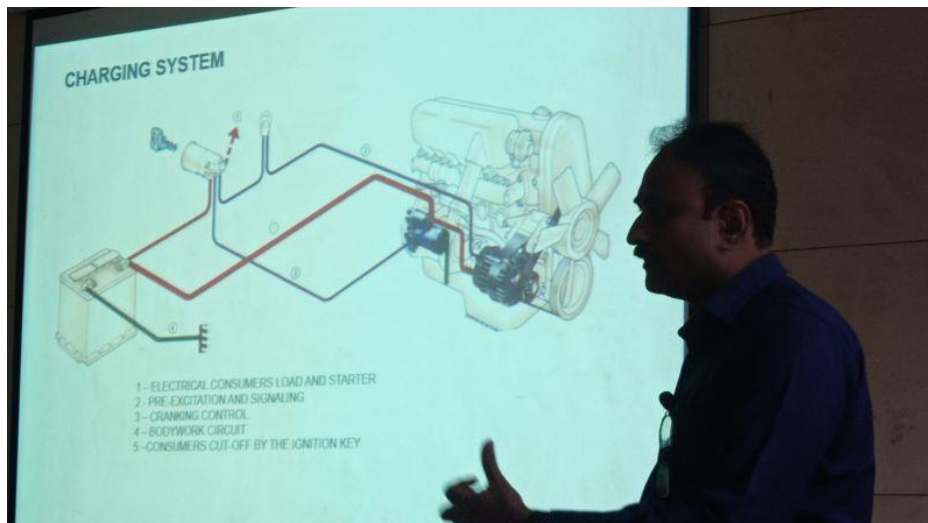
B. Valeo – SRM Lecture Series 2: Lecture on Thermal Management for Elective Vehicle Systems

Mechanical Engineering Association; ISHRAE student chapter and Centre for Lean And Six Sigma (CLASS) in association with Valeo India Private Limited jointly organized the third session of Valeo – SRM Lecture Series on “Thermal Management for Elective Vehicle Systems” on 19 April, 2022, 02:30 to 04:00 PM IST. Resource person: **Mr. Gyana Ranjan Rana**, Team Lead – CAE Valeo India Private Limited. Coordinator: **Dr. E. Vijayaragavan**.



C. Valeo – SRM Lecture Series 3: Lecture on Current Trends in Automobile Engineering

SRM SAE Collegiate Club and Centre for Lean And Six Sigma (CLASS) in association with Valeo India Private Limited jointly organized the third session of Valeo – SRM Lecture Series on “Trends in Automobile Engineering (Hybrid Electric Architecture and Vehicles)” on 29 April, 2022, 10:30 to 11:30 AM IST. Resource person: **Mr. Muthukumaran Venugopal**, Product Manager, Valeo India Private Limited. Coordinator: **Dr. E. Vijayaragavan**.



D. Valeo – SRM Lecture Series 4: Lecture on Basic Mechanical Engineering

Centre for Lean And Six Sigma (CLASS) in association with Valeo India Private Limited; jointly organized the fourth session of Valeo – SRM Lecture Series on arranged a Guest Lecture on “Basic Mechanical Engineering” on 13 May, 2022, 10:00 to 11:30 AM IST. Resource Person: **Mr. Deepan Dorairaj**, Dy. Team Lead, Material Engineer R&D, Valeo India Private Limited. Coordinator: **Dr. E. Vijayaragavan**.



E. Valeo – SRM Lecture Series 5: Lecture on Design of Automotive Component

SRM SAE Collegiate and Centre for Lean And Six Sigma (CLASS) in association with Valeo India Private Limited; jointly organized the fifth session of Valeo – SRM Lecture Series on arranged a Guest Lecture on “Design of Automotive Component – Role of Aluminium, Diecasting in Automotive Domain” on 20 May, 2022, 10:00 to 11:30. Resource Person: **Mr. Amuthan Karunamurthi**, Valeo India Private Limited. Coordinator: **Dr. E. Vijayaragavan**.



5. Activity with Shinsung University, South Korea (Faculty Champion: Dr. S. Murali)

1. Seung Nam Min, Jae Seong Lee, Chae Min Lim, Ki U Kim, Yung Woo Kuw, Kim Jin Woo, **Murali Subramaniyam**, Godla Navyatha (First Year M. Tech Robotics). "Safety Helmet Integrated Management System" filed February 11, 2022. Application no. 2022-0018456 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed. From CAPSTONE Design Project**
2. Seung Nam Min, Su Min Noh, Ji Eun Rho, **Murali Subramaniyam**, D. Mounika (Second Year M. Tech Robotics) & Muhammed Inzamam (Second Year M. Tech Robotics). "Finger Assistance Apparatus" was filed on February 11, 2022. Application no. 2022-0018454 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed. From CAPSTONE Design Project**
3. Seung Nam Min, Deok Gyu, Hoon Kim, **Murali Subramaniyam**, Ramnaath M (Second Year M. Tech Robotics), "Smart Helmet" filed on February 11, 2022. Application no. 2022-0018455 (Korean Patent) with SRM Affiliation (MoU Outcome with Shinsung University, South Korea) **Status: Filed. From CAPSTONE Design Project**
4. Ramnaath M (Second Year M. Tech Robotics), Mounika D (Second Year M. Tech Robotics), **Murali Subramaniyam**, Seung Nam Min, "Measurement of Spine Curvature using Flexicurve Integrated with Machine Vision," 6th International Conference on Human Factors and Wearable Technologies under Applied Human Factors and Ergonomics (AHFE 2022) Conference series, Sheraton New York Times Square, USA, July 24-28, 2022.
5. Seung Nam Min, Jungnam Im, **Murali Subramaniyam**, Analyzing Korean Reading Course and Designing Education - A Focus on Learner's Eye Tracking Analysis". 8th International Conference on Human Factors in Training, Education, and Learning Sciences under Applied Human Factors and Ergonomics (AHFE 2022) Conference series, Sheraton New York Times Square, USA, July 24-28, 2022.

6. Activity with Fronius India Private Limited (Faculty Champion: Dr. N. Harshavardhana)

1. Total of 6 students' major projects were completed using the welding facilities available in the industry in year 2022.
2. Total of 6 students went to the industry welding facilities in Feb 2022 to complete their welding experiments.
3. Two Technical presentations supported by an expert from the industry to SRM IST on the field of welding and WAAM.(i.e Six days online FDP on An insight into Novel research aspects in manufacturing processes and six-day FDP on 3D Printing/Additive Manufacturing).
4. Development of syllabus for a one-day certificate program for ITI students with the support from the industry.

7. Activity with Kemppt India Private Limited (Faculty Champion: Dr. N. Harshavardhana)

1. Total 2 students' major projects were completed using the industry equipment in the field of Wire arc additive manufacturing.
2. One M.Tech major projects completed using the industry equipment in the field of Wire arc additive manufacturing.
3. Two Technical talk presentations supported by expert in the industry to SRM IST on the field of welding and WAAM.(i.e Six days online FDP on An insight into Novel research aspects in manufacturing processes and six day FDP on 3D Printing/Additive Manufacturing).
4. Development of syllabus for certificate course for B. Tech students by expert from the industry on Industry 4.0 - Arc welding technology.

Events Organized in the department

1. Release of “RESONANCE Vol 3 Issue 2” on 08 February 2022.

The department of mechanical engineering and alumni association jointly organized an event to interact with alumni and release of “Resonance”. It is a biannual newsletter from the department of mechanical engineering.

Dr. E. Vijayaragavan coordinated the event in the presence of Prof. M. Cheralathan, HOD/Mechanical and Prof. A. Rathinam, Director – Alumni Affairs. All the invited alumni have released the RESONANCE.

Guest speakers:

1. Mr. Dannie Mathew, Project Director at Tech Sharp Engineers P Ltd., Chennai. 1997 Batch Alumni
2. Dr. Yagnaseni Roy, Assistant Professor, IISc Bengaluru, 2013 Batch Alumni
3. Mr. Sumeet Kumar, Manager KPMG Global Services, Bengaluru, 2011 Batch Alumni
4. Ms. Leya Miriam Kurian, Senior Advisor, Ministry of Education of New Zealand, 2015 Batch M.Tech CAD Alumni

SRM
INSTITUTE OF SCIENCE AND TECHNOLOGY
Kattankulathur 603203

Department of Mechanical Engineering


In association with
Directorate of Alumni Affairs

Invites you for the release of
RESONANCE
A Biannual Newsletter from the Department of Mechanical Engineering
08 February 2022 (Tuesday), 10 AM

| | |
|--|---|
|  <p>Mr. Dannie Mathew 1997 Batch - Mechanical Engineering Project Director Tech Sharp Engineers P Ltd, Chennai</p> |  <p>Haribhaskaran Anangopal 2004 Batch - Mechanical Engineering Deputy Director National Institute of Wind Energy</p> |
|  <p>Mr. Sumeet Kumar 2011 Batch - Mechanical Engineering Manager KPMG Global Services, Bengaluru</p> |  <p>Dr. Yagnaseni Roy 2013 Batch - Mechanical Engineering Assistant Professor IISc Bengaluru</p> |
|  <p>Ms. Leya Miriam Kurian 2015 Batch M.Tech CAD Senior Advisor Ministry of Education of New Zealand</p> | <p>Join with https://tinyurl.com/resonance2022 Meeting ID: 952 1034 0037 Passcode: 889554</p> |

All are welcome





Organized by:

| | | |
|---------------------------------------|---|---|
| Dr. M Cheralathan Professor & Head | Dr. E Vijayaragavan Alumni Coordinator | Dr. A Rathinam Director – Alumni Affairs |
|---------------------------------------|---|---|

2. Faculty Development Program

Six days FDP on "ADVANCES IN FLUID FLOW AND HEAT TRANSFER" organized by Department of Mechanical Engineering, SRMIST Kattankulathur, Chennai on 03/01/2022 to 08/01/2022. [Total number of Participants :54 in which SRM Faculty:28, Outside SRM: 4, PhD scholar: 22]. [Total number of sessions: 18, Total number of experts: 18]. Coordinators: **Dr. Pankaj Kumar, Dr. P. Sudhakar, Dr. R. Senthil Kumar, Dr. Santosh Kumar Singh, Mr. S. Ponsankar, Mr. A. Sathishkumar.**

3. Skill Development Program – CNC Training

Our department of Mechanical Engineering conducted a Seven-day Skill Development Programme on “CNC Training in Programming and Operation at Machine Shop” from 8 – 15 February, 2022. The training included theory and practical sessions on different CNC Machine tools, both milling and turning centres. Trainees were taught programming and simulation during theory spell followed by execution and machining through practical sessions. The highlight of the training is being the extensive hands-on exposure in CNC Machine tools.

Resource Person: Mr. S. Shakthivel; Mr. K. R. Srinivasan, Mr. R. Vasu; Mr. V. Sudhakar; Mr. R. Kalidoss; Mr. Maheswaran. Coordinator: **Mr. S. Shakthivel.**



4. Webinar on Design Thinking

A webinar on “Design thinking concepts for project identification” was organized by SIIEC and Mechanical Engineering Association, Department of Mechanical Engineering, SRMIST on 18 February 2022. Coordinator: **Dr. T. Lakshmanan**

5. Virtual Interactive Session

SRMIST Material Advantage Student Chapter and Centre for Lean And Six Sigma (CLASS) organized an online interactive session with “**Mr. Dinesh Sharma**” on **Total Productive Maintenance** on 13 March 2022, at 6 PM. Coordinators: **Mr. A. Vinoth** and **Dr. E. Vijayaragavan.**

6. Workshop on Healthcare Systems Engineering

Centre for Lean And Six Sigma (CLASS) in association with Thomas J. Watson College of Engineering and Applied Science, Binghamton University organized a physical workshop on “Healthcare Systems Engineering” on 30 March 2022, 10:30 AM IST with **Prof. Mohammad Khasawneh** as a Resource person and **Prof. Dr. Srinivas Chakravarthy** N delivered the inaugural address. Coordinator: **Dr. E. Vijayaragavan**.



< Lecture on Total Productive Maintenance by **Mr. Dinesh Sharma**, OpEx Consultant >



< Lecture on Healthcare System Engineering by **Prof. Mohammad Khasawneh**, Thomas J. Watson College of Engineering and Applied Science, Binghamton University >



7. Guest lecture on Basics of Total Productive Maintenance

Centre for Lean And Six Sigma (CLASS) arranged a Guest Lecture on “Basics of Total Productive Maintenance” on 21 April, 2022, 01:30 to 03:00 PM IST. Resource person: **Mr. V. Kumar**, Retd. Sr, Maintenance Manager, Brakes India Private Limited and the Executive Committee Member of NIQR. Coordinator: **Dr. E. Vijayaragavan**.



<Lecture on “Basics of Total Productive Maintenance” by **Mr. V. Kumar**, Retd. Sr, Maintenance Manager, Brakes India Private Limited and the Executive Committee Member of NIQR.>

8. Alumni Talk on Emerging Technologies

Directorate of Alumni Affairs; department Alumni association and Centre for Lean And Six Sigma (CLASS) jointly organized an Alumni talk on “Emerging Technologies in the Techno World” on 06 May, 2022, 02:30 to 03:30 PM IST. Resource person: **Mr. Muddubhai Asif Hussain**. Organizing committee: **Dr. A. Rathinam**, Director – Alumni Affairs, **Dr. M. Cheralathan**, HOD/Mechanical, **Dr. E. Vijayaragavan**, Coordinator – Alumni Association, **Mr. S. Balamurugan**.



< Alumni talk on “Emerging Technologies in the Techno World by **Mr. Muddubhai Asif Hussain** >

9. Ethnic Day Celebration



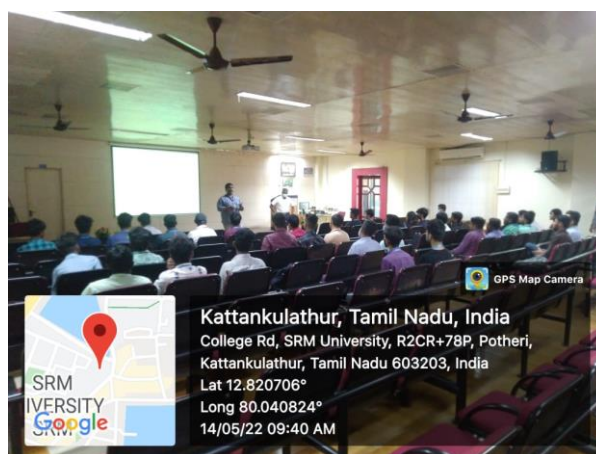
<Ethnic Day Celebration organized by MEA>

The Ethnic Day Celebrations marked a new beginning for the Mechanical Engineering Association (MEA), as it was the very first event organized entirely by second-year students, with guidance from the senior members of the Association. Conducted on 15th June 2022, the event was two-fold; the first part was a celebration of our nation's diversity and inherent inclusivity, with students being given the liberty to dress in the attire of their provenance. This initiative was met with an exuberant response from the students, all of whom dressed enthusiastically for the occasion. The second part of the event was a Group Discussion among second-year students on a relevant technical topic related to Mechanical Engineering. As such, the topic chosen was: Challenges faced in electric mobility in India. Participants were first

addressed by **Mr. Priyanand** from the Career Development Centre (CDC), who also happened to be the moderator for the event. Faculty Coordinator: **Dr. A. Vijaya**; Student Coordinators: Abhishek Kumar Bhagat [RA2011002010084]; Shreyas Vadrewu [RA2011002010132]; Geshna R [RA2011002010085]

10. One-Day Certification Program

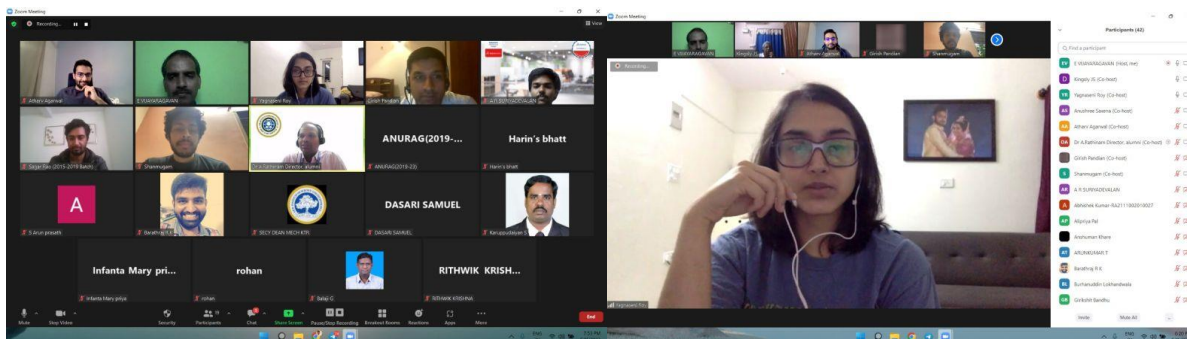
Our department of Mechanical Engineering conducted a one-day certificate program (Physical mode) for the 2nd year 3rd-year Mechanical engineering students on the topic "Heat transfer problems - Simulation approach for practical problems" on May 14, 2022 from 9.00 AM to 4.00 PM. A total of 28 participants (22 B. Tech Students and 6 research scholars) registered and benefited. Resource Person: **Dr. M. Piramanandhan**, Sr. Engineering Manager-Mechanical-R&D, ESAB Engineering Services Division (R&D Center) ESAB India Ltd, SIPCOT Industrial Park, Irunkattukottai, Sriperumbudur. Convener: **Dr. M. Cheralathan & Dr. U. Mohammed Iqbal**. Co-Convener: **Dr. N. Harshavardhana & Mr. I. Aatthisugan**



<One-day certificate program by Dr. M. Piramanandhan, ESAB India Ltd.>

11. Alumni Conclave

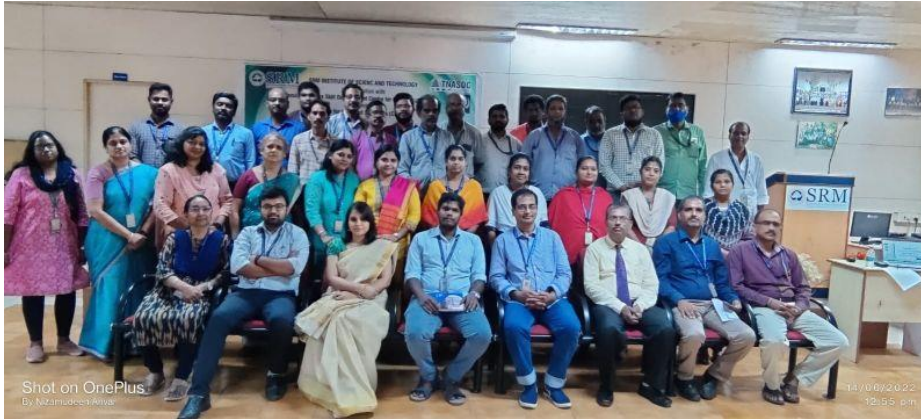
Directorate of Alumni Affairs and Centre for Lean And Six Sigma (CLASS) happy to host virtually **Girish Pandian; Yagnaseni Roy, PhD; Anushree Saxena; Atharv Agarwal; Shanmugasundaram R** during the online Alumni conclave on "What next after graduation - Placements or Higher Studies" on 11 June, 2022, 06.00 to 07:30 PM IST. **Prof. Kingsly Jeba Singh** delivered the welcome address followed by the panelists address. Active participation and interactive Q&A session. Prof. A. Rathinam, Director – Alumni Affairs delivered the vote of thanks. Coordinator: **Dr. E. Vijayaragavan**.



<Alumni Conclave organized by Directorate of Alumni Affairs and CLASS >

12. Skill Development Program by TNASDCL

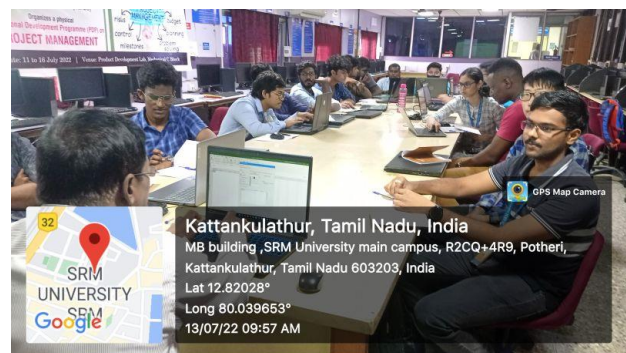
Tamilnadu Apex Skill Development Centre for Logistics (TNASDCL) and Centre for Lean And Six Sigma (CLASS) organized “Certification Programme on 5S @ Workplace” on 14 June, 2022, 09:00 AM to 01:00 PM. Coordinators: **Dr. E. Vijayaragavan** and Dr. V. Thirumurugan, Associate Director – Campus Life.



< Certification Programme on 5S @ Workplace by TNASDCL >

13. Professional Development Program with TNASDCL

The Directorate of Alumni Affairs (DAA) and Centre for Lean And Six Sigma (CLASS), in association with Tamilnadu Apex Skill Development Centre for Logistics (TNASDCL), Chennai organized a Six Days Professional Development Programme (PDP) on “Project Management” on 11 to 16 July, 2022. Resource persons: Dr. Panneerselvam Ramaswamy, Retired – Principal Director, MSME Technology Development Centre, Agra; Mr. Senkathir Selvan Suriaprakasam, Business Owner – TCS Digifleet, TCS; Mr. Sathayanarayanan Gopikarajan, Senior Project Manager, Infosys; Mr. Rajavel Chandrasekarn, Delivery Manager – Medical Devices, HCL Technologies; Mr. Palani Natesan, Head – Quality, Nexteer Automotive India Private Limited; Dr. V. S. V. Verchezhian, Joint General Secretary, Laghu Udyog Bharati (LUB) Tamilnadu; Ms. Vanathi Subbiah, Deputy – Project Director, Stellantis; Dr. S. K. Mannivannan, Associate Professor, School of Management, SRM IST. Coordinator: **Dr. E. Vijayaragavan**.



< Professional Development Program on Project Management >

14. Three-week Course on Biomechanics

A total of 27 students from **MIT World Peace University**, Pune attended a Three-week course on “**BIOMECHANICS**” from 11 to 29 July 2022 as a part of the National Academic Immersion Programme – NAIP 2022 organized by the Department of Mechanical Engineering. Course Coordinator: **Dr. E. Vijayaragavan**. Resource persons: Dr. Shantanu Patil, SRM MCH; Dr. D. Dinesh Kumar, SRM MCH; Dr. Chandhramuki, SRM MCH; Dr. Vignesh, SRM MCH; Dr. S. P. Angelie Kirubha, BME; Ms. D. Hepzibah Rubella, CPT/SK; Mr. J. Ayyappan, CPT; Dr. P. Susai Manikam, SRM Mech; Mrs. Mercy Joy, CPT; Mr. D. Raja, SRM Mech; Mrs. M. Sowmiya, CPT; Mr. Manovaprasanna Kumar, CPT; Dr. V. Magesh, SRM Mech, Dr. Srinivas Chakravarthy, Fortis; Dr. E. Vijayaragavan; Dr. S. Karuppudaiyan; Mr. J. Daniel Glad Stephen; Dr. Shubratta Datta; Mr. S. Balamurugan; Mr. V. Manoj Kumar; Dr. T. S. Veeragowdhaman.



< Lectures by resource person - National Academic Immersion Programme – NAIP 2022 >



< Valedictory Function - National Academic Immersion Programme – NAIP 2022 >

Students undergoing Longterm Internship - Odd Sem 2022-23

Ashok Leyland Foundry Division – Ennore

1. Mr. Harin Sanjay Bhai Bhatt [RA1911002010009]
2. Mr. Sudharsanan Venkatraman [RA1911002010011]
3. Mr. Lokhandwala Burhanuddin Murtazabhai [RA1911002010014]
4. Mr. T T Vighnesh Karthikeyan [RA1911002010031]
5. Mr. Rohit Sumit Kundu [RA1911002010138]



Ashok Leyland Foundry Division – Sriperumbudur

6. Mr. Ashfaq Mahmood Laskar [RA1911002010058]
7. Mr. Yash Sameer Sunkle [RA1911002010096]
8. Mr. MD Shahbaz [RA1911002010131]
9. Mr. MD Danish Reyaz [RA1911002010132]
10. Mr. Jagannath Pradhan S [RA1911002010147]
11. Mr. Velivela Madhu Babu [RA1911002010219]
12. Mr. M Munish Raja [RA1911002010251]



Americal Axle & Manufacturing Driveline

13. Mr. Natarajan G [RA1911002010072]
14. Mr. Suryamoorthy M [RA1911002010085]
15. Mr. Aswin Suresh Kumar [RA1911002010108]
16. Mr. Shivasailam Senthil Vel [RA1911002010121]



Rane Engine Valves Limited

17. Mr. Nandan Harish Karathi [RA1911002010078]
18. Mr. G Tejas Ratnam [RA1911002010084]
19. Mr. Samuel Dasari [RA1911002010135]



TI Clean Mobility Pvt Ltd

20. Mr. Junayd Feroze Salahudeen [RA1911002010095]
21. Mr. Vishal G Prasad [RA1911002010105]
22. Mr. Saran R [RA1911002010197]



23. **Mr. Arya Vikram Singh [RA1911002010069]** undergoing longterm internship at “NowPurchase” Odd semester 2022-23.

Events Attended by our students

1. Mr. P. Mahadevan [RA1911002010010] earned elite silver certificate for NPTEL course “Introduction to abrasive machining and finishing process.
2. Ms. Aashni Ravishankar [RA1911002010034] earned elite silver certificate for NPTEL course “Introduction to abrasive machining and finishing process.
3. Mr. A. Manoj [RA1811002010142], has undergone internship training in "Study of 210 KW Turbine" at "NLC India limited" from March 14 2022 to March 26, 2022.
4. Mr. Mohammed Sohail Jailani Makandar [RA1811002010096], attended an on-site internship program at the "Dangote Oil Refinery Construction Phase" organized by Onshore Construction FZE from December 01 2021 to February 28 2022.
5. Mr. Reddy Ram Charan Teja [RA1811002010461] has undergone internship training in Supply chain management in "AAM India Manufacturing Corporation Pvt Ltd.," from January 05 2022 to March 25, 2022.
6. Mr. Hari Om Pandey [RA1811002010537] has undergone internship training at "DANA Anand India Pvt Ltd.," from January 03 2022 to June 30, 2022.
7. Mr. Vishal S [RA1811002010110] attended a web lecture on "Lean Tools" at SRMIST held on February 09 2022 organized by SRMIST Material Advantage Student Chapter.
8. Mr. Parth Chavan [RA1811002010479] attended a webinar on deep learning at Binghampton University (virtual) jointly organized by Binghampton University and SRMIST on April 15, 2022.
9. Mr. Bhavesh Shukla [RA1811002010425] attended a technical webinar titled "Design Thinking Concepts for Project Identification" organized by SRM Innovation Incubation and Entrepreneurship Centre, Kattankulathur on February 25, 2022.
10. Mr. Anih Kishor [RA1911002010062] Attended a seminar on cyber security through virtual mode held on 17/01/22 organized by Bridge Deloitte.
11. Mr. Anih Kishor [RA1911002010062] Attended this webinar on "How to be successful in industry?" through virtual mode on 12/01/2022 organized by EduThrill.
12. Mr. Yash Sameer Sunkle [RA191102010096] attended Training on "Robotics" at online held from 20/11/2021 to 20/01/2022 organized by VYORIUS-1stop.
13. Mr. A. PAVAN TEJA [RA1911002010222] Attended "Advance Two Wheeler Technology", December 18, 2021 - January 2, 2022, Skyy Rider Institutions.
14. Mr. MOHAN R [RA1911002010164] Attended " Advance Two Wheeler Technology " a Virtual Industrial training held from 18/12/2021 to 02/01/2022 by Skyyrider Institutions in associated with TVS Motor Company LTD.
15. Mr. YUVRAJ SINGH [RA1911002010189] attended workshop on "CNC Programming for Drilling Operations" during January 20-21, 2022.

16. Mr.YUVRAJ SINGH[RA1911002010189] attended workshop on "Hydrodynamics and Convective Heat Transfer studies of air and Water jet impingement" on January 20, 2022.
17. Mr.YUVRAJ SINGH[RA1911002010189] attended workshop on "Introduction to Structural Dynamics" on January 15 , 2022.
18. Mr.YUVRAJ SINGH[RA1911002010189] attended webinar on "Lean Tools" on January 9, 2022.
19. Mr.YUVRAJ SINGH[RA1911002010189] attended webinar on "How to be successful in Industry?" on January 12, 2022.
20. Mr.BEDADITYA BARAT[RA1911002010183] attended workshop on Material Testing held on January 08 2022 to January 10 2022 organized by CLASS.
21. Mr.BEDADITYA BARAT[RA1911002010183] attended webinar on HYDRODYNAMICS AND CONVECTIVE HEAT TRANSFER STUDIES OF AIR AND WATER JET INPINGEMENT held on January 20 2022 organized by SKILLLYNC.
22. Mr.BEDADITYA BARAT[RA1911002010183] attended webinar on INTODUCTION TO STRUCTURAL DYNAMICS held on January 15 2022 organized by Skill lync.
23. Mr.BEDADITYA BARAT [RA1911002010183] attended workshop on CNC Programming for Drilling Operations held on January 20 2022 to January 21 2022 organized by Skyridder institutions.
24. Mr. BEDADITYA BARAT[RA1911002010183] attended webinar on LEAN TOOLS held on January 09 2022 organized by SRMIST Material Advantage Student Chapter.
25. Mr.Mayank Raj [RA1911002010241] attended workshop on "AUTODESK Designing & CAE Fundamentals & IIRS Webinar & A Course on Introduction to self-Driving cars " organized by Autodesk, ESSS Institute , ISRO ,Coursera respectively , held on February 13-25 (2022) .
26. Mr.Lokhandwala Burhanuddin Murtazabhai [RA1911002010014] attended webinar on Idea Generation Challenge, Sanrachna, January 10 2022, BHEL.
27. Mr.Lokhandwala Burhanuddin Murtazabhai [RA1911002010014] attended webinar on CAD/CAM Software, Virtually every, 6-9th February 2022, Dassault Systems.
28. Mr.Mayank Raj [RA1911002010241] attended webinar on "Self-charged Hybrid Electric Vehicles " , In Toyota , January 24, 2022.
29. Mr.Yash Raj [RA1911002010053] attended Winter Training 2022 on "Various Activities at Well Services" at Oil and Natural Gas Corporation CBM Asset, Bokaro held on January 18 2022 organized by Human Resource Department (ONGC) .
30. Mr.YUVRAJ SINGH [RA1911002010189] attended webinar on "Applications of Fluid Mechanics in Oil and Gas Industry" held on 12/02/2022 organized by SRMIST Material Advantage Student Chapter.
31. Mr.YUVRAJ SINGH [RA1911002010189] attended webinar on "Design Thinking Concepts For Project Identification" held on 25/02/2022 organized by SRM Innovation Incubation and Entrepreneurship Centre, Kattankulathur.

32. Mr.YUVRAJ SINGH [RA1911002010189] attended webinar on "Total Productive Maintenance" held on 13/03/2022 organized by SRMIST Material Advantage Student Chapter in collaboration with Centre for Lean And Six Sigma (CLASS) SRMIST Chennai.
33. Mr.Mr.YUVRAJ SINGH[RA1911002010189] went for Industrial Visit to Crown Technologies and SAEHAN STAMPING PRIVATE LIMITED held on May 12 2022 organized by Centre for Lean And Six Sigma (CLASS) SRMIST Chennai.
34. Mr.YUVRAJ SINGH[RA1911002010189] attended workshop on Healthcare Systems Engineering held on March 30 2022 organized by Centre for Lean And Six Sigma (CLASS) SRMIST Chennai.
35. Mr.YUVRAJ SINGH[RA1911002010189] completed 15 days of Industrial training from TVS Motor Company LTD during December 18 2021- January 03 2022.
36. Mr.S.P Shibu Jeyanth [RA1911002010097] participated in the event "The Beauty and Horrors of the Outerwilds", in Science Carnival 2022, Astrophilia SRMIST, May 21, 2022.
37. Mr.T.T.VIGHNESH KARTHIKEYAN [RA1911002010031] has participated in the ONLINE QUIZ PROGRAM organized by NATIONAL INSTITUTION FOR QUALITY AND RELIABILITY. STUDENT CHAPTER on "TQM PRINCIPLES" on Saturday 23-04-2022.
38. Mr. BEDADITYA BARAT[RA1911002010183] attended IEI Hackathon 1.0 held on January 29 2022 TO January 30 2022 organized by IEI STUDENTS CHAPTER SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, VADAPALANI.
39. Mr.YUVRAJ SINGH[RA1911002010189] participated in Hackathon V1.0 during January 29-30, 2022.
40. Mr.Aryan Raj [RA1911002010119] participated IEI Hackathon on "Portable Solar Water Purifier" at SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, Vadapalani held on January 29 2022 to January 30 2022 organized by Department of Electronics and Communication Engineering.
41. Mr.Desalanka Likesh Murali [RA1911002010045] certificated with this course in the recognition of the completion of AUTOCAD FOR MECHANICAL, MECHANICAL from cad desk.
42. Mr.A. PAVAN TEJA[RA1911002010222] completed Online Course on "Hybrid Electric Vehicles" held on March-10 to April-10, 2022 organized by Acmegrade.
43. Mr.YUVRAJ SINGH [RA1911002010189] completed online course on "Advanced Manufacturing process Analysis" from 12/02/2022 to 12/03/2022 from Coursera.
44. Mr.YUVRAJ SINGH[RA1911002010189] completed short term course on "MATERIAL TESTING" held from January 8-10, 2022.
45. Tushar Negi(RA2011002010017), has successfully completed online training on "Solid Works" from 17.2.2022 to 16.3.2022 organized by MSME-TECHNOLOGY DEVELOPMENT CENTRE (PPDC).
46. Chakri G Tonpe (RA2011002010038) for successfully completing the Guest Lecture on the topic "Total Productive Maintenance" delivered by Mr. Dinesh Sharma, Founder of 'Ek Pahla Kadam', held on March 13 2022 organized by SRMIST Material Advantage Student Chapter in collaboration with Centre for Lean and Six Sigma.

47. Roshan K(RA2011002010080) has successfully completed the Online Degree course, Foundation Level in Programming and Data Science from 2.8.2020 to 1.4.2022 conducted by Centre of Continuing Education, IIT Madras.
48. Mr. S N Vinoth (RA2011002010033) has successfully completed online training on ANSYS from 25.02.2022 to 24.03.2022 (96 hrs.) organized by MSME-TECHNOLOGY DEVELOPMENT CENTRE (PPDC)
49. Mr. S N Vinoth (RA2011002010033) has successfully completed online training on CATIA from 18.02.2022 to 17.03.2022 (96 hrs.) organized by MSME-TECHNOLOGY DEVELOPMENT CENTRE (PPDC)
50. Venkateswara Balaji Y K (RA2011002010237) has successfully completed an online non-credit course "Introduction to Mechanical Engineering Design and Manufacturing with Fusion 360" from 18.3.2022 to 22.4.2022 authorized by Autodesk and offered through Coursera.
51. Mr. Harshit Jain [RA2111054010008, B. Tech First Year] completed Artificial Intelligence course from VERZEO from 01.03.2022 to 30.04.2022..
52. Mr. Harshit Jain [RA2111054010008, B. Tech First Year] attended 45days Designscapeworkshop on Products, UI/UX & Graphic designing conducted by Tech Analogy.
53. Mr. Harshit Jain [RA2111054010008, B. Tech First Year] attended 30 days Autodrift workshop on Solidworks, Ansys, MATLAB conducted by Tech Analogy.
54. Mr. Praseeth Sharma [RA2111054010005, B. Tech First Year] completed MATLAB Fundamentals certification course from MATLAB on 07.06.2022.
55. Mr. KanaadChaphekar [RA2111054010028, B. Tech First Year] completed MATLAB Onramp certification course from MATLAB on 08.05.2022.
56. Mr. Joel Nithin F [RA2111054010019, B. Tech First Year] participated in Internal selection for Smart India Hackathon 2022, conducted by SRM Innovation Incubation and Entrepreneurship Centre, SRM IST from 17.03.2022-18.03.2022.
57. Mr. Srevathsan M R [RA2111002010131, B. Tech First Year] attended Guest lecture on "Total Productive Maintenance" organized by SRM IST on 13.03.2022.
58. KANAAD CHAPHEKAR[RA2111054010031 B. Tech First Year]] has successfully completed online training on PROFESSIONAL DEVELOPMENT PROGRAM ON TOTAL DIGITAL TRANSFORMATION from 15.11.2021 to 20.11.2021
59. Mr. SibhiChandar G [RA2111002010147, B. Tech First Year] presented his work "Hydraulic powered Robotic arm" in Techknow-2021 organized by Department of physics and Nanotechnology, SRM IST from 06.06,2022-10.06.2022.
60. Mr. Jayasimman P [RA2111002010145, B. Tech First Year] presented his work "Hydraulic powered Robotic arm" in Techknow-2021 organized by Department of physics and Nanotechnology, SRM IST from 06.06,2022-10.06.2022.

61. Mr. Akash A [RA2111002010143, B. Tech First Year] presented his work "Hydraulic powered Robotic arm" in Techknow-2021 organized by Department of physics and Nanotechnology, SRM IST from 06.06,2022-10.06.2022.
62. Ms. Nateswari M [RA2111002010144, B. Tech First Year] presented her work "Hydraulic powered Robotic arm" in Techknow-2021 organized by Department of physics and Nanotechnology, SRM IST from 06.06.2022-10.06.2022.
63. Mr. Sanskar Das [RA2111002010148, B. Tech First Year] visited Ramco Cements Ltd. Organized by Bureau of Indian Standards, Standards club for students, SRM IST on 16.06.2022.
64. Kanaad Chaphekar[RA2111054010028 B. Tech First Year] did an internship at TECH ANALOGY as Sales and Marketing operations. This internship was organized by TECH ANALOGY.



<Our students at MIT World Peace University, Pune under Student Exchange Program>

Events Attended by our Faculty

1. Ms. Deborah Serenade Stephen attended an FDP on "ADVANCES IN MATERIALS SCIENCES" held between 1st and 5th March, 2022 organized by the Mechanical Engineering Department of Sree Vidyanikethan Engineering College, Tirupati.
2. Shakthivel Somasundaram attended AICTE-ISTE approved Orientation/Refresher Programme on Advanced Materials and Manufacturing for Industry 4.0 held during 22-02-2022 to 28-02-2022 organized by Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Maharashtra
3. Mr. Shakthivel Somasundaram attended Session on SYSTEMATIC TRANSLATION OF RESEARCH INSTRUMENTS organized by Researchers Forum, College of Management, SRM Institute of Science and Technology, Kattankulathur on March 11 2022 (from 2pm to 4pm).
4. R. Saravanakumar, participating in a five-day FACULTY DEVELOPMENT PROGRAM on ADVANCES IN MATERIALS SCIENCES (Online Mode) organized by the Department of Mechanical Engineering, Sree Vidyanikethan Engineering College, Tirupati from 1st to 5th March 2022.
5. Dr. R. Ambigai participated & completed successfully AICTE & ISTE approved FDP on "Advanced Materials and manufacturing for Industry 4.0" from 22/2/2022 to 28/2/2022 organized by Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Maharashtra.
6. Dr.R.Ambigai participated in a five-day FACULTY DEVELOPMENT PROGRAM in "ADVANCES IN MATERIALS SCIENCES" (Online Mode) organized by the Department of Mechanical Engineering, Sree Vidyanikethan Engineering College, Tirupati from 1.3.22 to 5.3.22.
7. Dr. I. Infanta Mary Priya attended FDP on "ADVANCES IN MATERIALS SCIENCES" held on March 01 to 5th, 2022 organized by Department of Mechanical Engineering, Sree Vidyanikethan Engineering College, Tirupati.
8. Dr. M. Kamaraj attended FDP on "Curriculum Design, Assessment, Evaluation and Innovative Teaching and Learning to Achieve Outcome based Education" from 19/02/2022 to 25/02/2022 organized by Department of Mechanical Engineering, Sri Krishna College of Technology, Coimbatore.
9. Dr T.Lakshmanan, attended Faculty development Programme on "Modelling of Thermal Systems and Thermal Management of Electric Vehicle using cycle- tempo" from February 12 2022 to March 12 2022 organized by school of Mechanical Engineering (SMEC) and eVIT R.C. at Vellore Institute of Technology. Chennai.
10. Sivashankar M attended Indo-Japan collaborative workshop on "Advancement in concentrator photovoltaic system and its thermal management "from 14 to March 19 2022 Organized by Department of Mechanical Engineering, NIT Tiruchirappalli.
11. D. Raja, attended DR. PAARIVENDHAR RESEARCH COLLOQUIUM(DPRC) - 2022 and presented the title "Biomechanical analysis of a metal and carbon/epoxy composite bone plate in Periprosthetic Femoral Fracture (PFF) Fixation for intact and osteoporosis condition" event organized from 24.03.2022 to 26.03.2022 by Directorate of Research, SRM Institute of Science and Technology, Kattankulathur-603 203, Tamil Nadu, INDIA.
12. Mr. S. Shakthivel attended AICTE-ISTE approved Orientation/Refresher Programme on "Advanced Materials Manufacturing for Industry 4.0" from 22.02.2022 to 28.02.2022 organized by Shri Sant Gojanan Maharaj College of Engineering , Shegaon, Buldhana, Maharashtra
13. Mr. S. Shakthivel attended session on SYSTEMATIC TRANSLATION OF RESEARCH INSTRUMENTS organized by Researchers Forum, College of Management, SRM Institute of Science and Technology, Kattankulathur, on March 11 2022 (from 2pm to 4pm)
14. S. Karuppudaiyan attended webinar on "3D imaging on surgical orthodontic treatment- orthodontist perspective" on 25.02.2022, organized by SGT University, New Delhi.
15. Vamsi Krishna attended one day seminar on introduction to immersive technologies on 09-04-22 organized by center of immersive technology SRMIST

16. Aatthisugan I have participated and presented the paper entitled Mechanical and wear behaviour of AZ91D B4C - Gr hybrid composites in DPRC-2022, held on 24th - 26th March 2022 at SRM Institute of Science and Technology, Kattankulathur-603 203, Tamil Nadu, INDIA.
17. Dr.P. Chandrasekaran attended short term Virtual training Program Artificial Intelligence.
18. Dr. V. Magesh attended Webinar on "3D imaging in surgical orthodontic treatment - Orthodontist's perspective" on 25.02.2022 organized by Department of Orthodontics and Dentofacial Orthopaedics, SGT University, Gurugram, New Delhi-NCR.
19. Mr. S. Shakthivel attended workshop on Scientific & Technical Writing on 7-05-2022 organized by Nano Science and Technology Consortium.
20. Mr.I.Aatthisugan, participated in the International webinar on "Advances in Tribology" organized by the Department of Mechanical Engineering, The Assam Kaziranga University on May 23, 2022.
21. P V Jeyakarhikeyan attended workshop/FDP on 13-06-2022 to 19-06-2022 organized University of Engineering and Management at Jaipur
22. Dr.A.Vijaya, participated FDP on "Holistic Development and Outcome Based Education in the light of NEP-2020" from 13.06.2022 to 19.06.2022 organized by University of Engineering and Management, Jaipur through Virtual Mode
23. K.Jegadeesan participated in the International Webinar on "Advances in Tribology" held on May 23, 2022 organized by the Department of Mechanical Engineering, The Assam Kaziranga University
24. V. Veeranaath, attended FDP on "Advances in Heat Treatment & Material Processing" from 20.06-2022 to 24.06.2022 organized by National Institute of Technical Teachers' Training and Research, Chennai
25. V. Veeranaath, attended FDP on Holistic Development and Outcome Based Education in the light of NEP 2022 from 13.06.2022 to 19.06.2022 organized by University of Engineering and Management (UEM), Jaipur
26. Mr. S.Shakthivel attended Short Course Online PDPOM-23 on Yoga and Healing techniques for Well-being from 20-6-2022 to 24-06-2022 organized by NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH, Government of India, Ministry of Education, Taramani Chennai 600 113
27. R. Santhanakrishnan attended e International Webinar on "Advances in Tribology" on May 23, 2022.organized by the Department of Mechanical Engineering, The Assam Kaziranga University"
28. K.Jegadeesan attended DST-SERB Sponsored National Workshop on Advances in Materials, Manufacturing, and Processing of Bio-Scaffolds for Tissue Engineering Applications held at VIT Vellore from 27.04.2022 to 01.05.2022
29. Dr. V. Praveena attended PDP on "Learning Tecnologies" held on 13/6/2022 to 17/6/2022 organized by NITTTR, Chennai.
30. D.Premnath attended one-week Professional Development course on Academic Leadership & Motivation from 13.06.2022 to 17.06.2022 organized by National Institute of Technical Teachers training and Research, Chennai
31. S. Ponsankar, attended Online Professional Development Programme (PDPOM:25) on "MATLAB and LabVIEW for Engineering Applications" from 20.06.2022 to 24.06.2022 organized by Department of Electronics and Communication Engineering, National Institute of Technical Teachers' Training and Research, Chennai.
32. Dr. I. Infanta Mary Priya attended Professional Development Program on "Academic Leadership & Motivation" from 13.6.2022 to 17.6.2022 organized by National Institute of Technical Teachers Training and Research, Chennai
33. Dr. R. Senthil attended 5 days FDP on Renewable Sources of Energy from 27.06.2022 to 01.07.2022 organized by NITTTR Chennai.
34. Dr. R. Senthil attended an FDP on Academic Leadership & Motivation from 13.06.2022 to 17.06.2022 organized by NITTTR Chennai
35. Dr. P. Chandrasekaran attended Professional Development Program on "Academic Leadership and Motivation" from 13.06.2022 to 17.06.2022 conducted by NITTTR Chennai through online mode.

36. Dr. E Vijayaragavan has attended the ONE DAY WORKSHOP ON "LITHIUM-ION BATTERY TECHNOLOGY AND DEVELOPMENT", on June 27 2022, organized by the Department of Mechanical Engineering, SSN College of Engineering Jointly with the Chapter of Institution of Engineers India (IEI),
37. Dr.R.Ambigai participated in a FDP on 'Advances in Heat Treatment & Material Processing ' organized by National Institute of Technical Teachers Training & Research, Ministry of Education, Government of India Taramani, Chennai. from 20/06/2022 24/06/2022 (One Week) through Online mode.
38. M. R. Stalin John, attended FDP on "Learning Technologies" from 13.06.2022 to 17.6.2022 organized by NITTTR, Chennai
39. Mr. S.Shakthivel attended SERB Project Writing Workshop on 14-07-2022 organized by Department of Chemistry, IIT- Madras
40. Dr S. Balaji attended FDP on Academic Leadership & Motivation from June 13 to June 17 2022 organized by National Institute of Technical Teachers Training and Research, Chennai.
41. Dr. M. Kamaraj participated in the Professional Development Program on "Advances in Heat Treatment & Material Processing" from 20/06/2022 to 24/06/2022 organized by NITTTR, Chennai.
42. S. Murali, participated in the Professional Development Programme on "Developing Instructional Material" from 27.06.2022 to 01.07.2022 organized by the National Institute of Technical Teachers Training and Research, Chennai under Ministry of Education, Government of India.
43. N. ARUN attended FDP on "Virtual Reality Development with PYTHON" held on 18th TO 24th June organized by SRM Institute of Science and Technology at CHENNAI
44. Dr M Prakash attended the Professional Development Programme on "MATLAB and LabVIEW Programming for Engineering Applications" held on 20/06/2022 to 24/06/2022 organized by National Institute of Technical Teacher Training and Research, Chennai Electrical and Electronics department.
45. Dr. S. Karuppudaiyan attended Professional Development Programme on “MATLAB and Lab View in Engineering Applications”, from 20.06.2022 to 24.06.2022 organized by NITTTR, Chennai.
46. D. Raja, attended Faculty Development Programme (FDP) on "MATLAB and LabVIEW Programming for Engineering Applications" from 20.06.2022 to 24.06.2022 organized by National Institute of Technical Teachers Training and Research (Ministry of Education, Government of India), Chennai
47. Dr.V. Magesh attended PDP on "MATLAB and LabVIEW Programming for Engineering Applications" held on 20.06.2022 to 24.06.2022 organized by National Institute of Technical Teachers Training and Research at Chennai (Virtual)
48. P. Sudhakar, attended Professional Development Programme (PDP) on "MATLAB and LabVIEW Programming for Engineering Applications '" from 20.06.2022 to 24.06.2022 organized by (National institute of Technical Teachers Training and Research, Chennai, (NITTTR Chennai).
49. K. Jegadeesan participated in the Professional Development Programme on "Advanced in Heat Treatment & Material Processing" conducted by NITTTR, Chennai form 20/6/2022 to 24/6/2022 through online mode.
50. Dr. V. MAGESH attended Webinar on "Tooth borne Vs Tissue borne maxillary expansion: Does it matter" held on 16.07.2022 organized by Department of Orthodontics and Dentofacial Orthopedics at SGT University, Gurugram, New Delhi.
51. Abburi Lakshman Kumar Participated in the Six days Faculty Development Program on Virtual Reality Development with Python during 18th to 24th June 2022 Organized by Center Immersive Technologies (CIT), SRM Institute of Science and Technology, Kattankulathur.
52. Dr. V. Praveena attended FDP on "Advancements in Thermal and Renewable Energy Technologies (ATRET-2022)" organized by the Department of Mechanical Engineering, Lakireddy Bali Reddy College of Engineering, Andhra Pradesh organized from 04/07/2022 to 09/07/2022."

53. Dr. R. Murugesan, attended FDP on "Advances in Heat Treatment & Material Processing" held on 21.06.2022 to 24.06.2022, organized by NITTTR Chennai.
54. Dr. V. Thirunavukkarasu attended 5 days FDP on Renewable Sources of Energy from 27.06.2022 to 01.07.2022 organized by NITTTR, Chennai.
55. Dr. G. Kasiraman attended one week FDP on "Academic Leadership and Motivation" conducted by NITTTR, Chennai from 13.06.2022 to 17.06.2022.

Events Organized and Outreach Activities by Faculty:

1. Dr. Thirunavukkarasu and Dr. R. Ambigai coordinated an awareness program on Prevention and Prohibition of Sexual Harassment at workplace (POSH) for the School of Mechanical Engineering on May 07 2022, through online mode for Research Scholars and Faculties from 2.00 to 3.00 PM and at 3.15 to 4.15P.M
2. Dr. R. Senthil honoured with Review Editor on the Editorial Board of Solar Energy, Specialty section of Frontiers in Energy Research, SCIE Indexed, Impact Factor =4.008.
3. Dr. R. Senthil honoured with reviewer recognition. Reviewed 16 manuscripts. Journal of Energy Storage (Elsevier, 4 Nos), Renewable Energy (Elsevier, 2 Nos), International Journal of Energy Research (Wiley, 2 No.), Applied Energy (Elsevier, 1 No.), Results in Engineering (Elsevier, 1 No.), Environmental Science and Pollution Research (1 No.), ASME Journal of Thermal Science and Engineering Applications (1 No.), Micromachines (1 No.) and Frontiers in Ecology and Evolution (1 No), Computation (1 No.), Proceedings of Engineering and Technology Innovation (1).
4. Dr. I. Infanta Mary Priya reviewed an article in Journal of Polymer Research, Springer publication, with IF of 3.097
5. Dr. I. Infanta Mary Priya Reviewed an article in the Part E: Journal of Process Mechanical Engineering, Sage Publication, with IF 1.62
6. Dr. I. Infanta Mary Priya reviewed an article in the Materials Today Proceedings journal during July 2022
7. Dr. G. Balaji reviewed three articles for International Journal of Ambient Energy.
8. Dr. G. Balaji has successfully completed "Air pollution – a Global Threat to our Health" at Coursera.
9. Dr. I. Infanta Mary Priya chaired two technical sessions in International Conference on Advances in Mechanical Engineering ICAME 2022 held between March 24 - 26, 2022 by the Department of Mechanical Engineering, SRMIST.
10. Dr. R. Ambigai chaired 2 technical sessions in the "4th INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING (ICAME 2022)", organized by the Department of Mechanical Engineering, SRM IST, Kattankulathur, during March 24-26, 2022.
11. Dr. R. Ambigai one of the members in various Committees in the "4th INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING (ICAME 2022)", organized by the Department of Mechanical Engineering, SRM IST, Kattankulathur, during March 24-26, 2022.
12. Mr. V. Raghavendra Rao participated in one day seminar on INTRODUCTION TO IMMERSIVE TECHNOLOGIES
13. Dr R Senthil acted as a Panellist for Project Extravaganza-2K22, a multi-campus level project expo, organized by SRM EEE Department, on April 27 2022.
14. Mr. R. Saravanakumar, Dr. T. Rajasekaran and Dr. Harshavardhana visited "Wonjin Autoparts India Pvt Ltd" in Maraimalai Nagar on 31st may 2022.
15. Dr. V. Thirunavukkarasu organized a three-day Meditation Program by Heartfulness Institute, Chennai for SRMIST Drivers from 4th to 6th July 2022.

Upcoming Events

2nd **I**nternational **C**onference on **R**ecent **A**dvances in **C**omposite **M**aterials (ICRACM-2023), 22-24 February 2023, organized by the **C**entre for **C**omposites and **A**dvanced **M**aterials (**CCAM**), Department of Mechanical Engineering, SRM IST, Kattankulathur.

The conference is being organized with the objectives of:

- Bringing together academia and industry from all over the world to deliberate upon the challenges, and opportunities on composites and advanced materials.
- Promoting scientific information exchange among academicians, researchers, developers, engineers, students, and practitioners working around the world.

The conference will focus on the following topics:

- Composite materials; Biomaterials; Light alloys; Advanced steel; Polymeric and Ceramic materials; Nano-structured materials; Semiconductors and other functional materials; Materials modelling in different length scales; Materials Informatics; Integrated Computational Materials Engineering; Applications of AI & ML

Convener

Dr. M. Cheralathan, Professor and Head

Dr. Shubhabrata Datta, Research Professor

Co-Conveners

Dr. M. Kamaraj, Associate Professor

Dr. Sumit Pramanik, Research Associate Professor

Dr. P.V. Jeyakarthikeyan, Associate Professor

For queries:

kamarajm@srmist.edu.in

About the Centre for Composites and Advanced Materials (CCAM)

To augment both experimental and computational research in the domain of composite and advanced materials, including advanced manufacturing processes, a Centre for Composites and Advanced Materials has been created within Department of Mechanical Engineering, SRM IST, Kattankulathur campus. The Centre has three different laboratories, (i) Composite and Advanced Materials Manufacturing Lab, (ii) Materials Modelling and Simulation Lab and (iii) Functional and Biomaterials Engineering Lab.

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(1st Year – B. Tech)