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Contents

Pg.No

- | | |
|----------------------------------------------------------------------------------|----|
| 1.Symposium, seminars,
workshop organized by
the faculty members | 2 |
| 2.Symposium, seminars,
workshop participated
by the faculty members | 4 |
| 3.Articles presented by
the faculty members | 6 |
| 4.Books and chapters in
edited volumes
published by the faculty
members | 7 |
| 5.Guest corner | 7 |
| 6.Significant reportable
activities | 10 |
| 7.Placement activities | 11 |
| 8.Jagadguru Vacanam | 11 |

Symposium, Seminars, Workshops, Webinars organized by the faculty members

Workshop organized on “Startups”

The Department successfully organized an extensive workshop on "Startups" on April 25, 2024, facilitated by Dr. T. Rajmohan, Associate Professor of Mechanical Engineering. Designed for final-year engineering and MBA students, the session offered a solid introduction to the startup ecosystem, exploring key elements of launching and growing successful businesses. Participants were provided with valuable insights on various topics, including legal structures, funding options—such as the intricacies of venture capital—the Startup India initiative, DPIIT recognition, and relevant schemes from the Union Budget 2023. The workshop wrapped up with an interactive Q&A session, equipping students with practical knowledge and essential resources to help them pursue their entrepreneurial dreams.



Dr T Rajmohan, Associate professor, Mechanical Engineering delivering lecture

Workshop organized on “Design Thinking”

A Faculty Development Program (FDP) titled Enhancing soft Skills, organized by the Department of Mechanical Engineering on February 15, 2025. The FDP was held at the Seminar Hall of the Department of Mechanical Engineering and commenced at 10:30 AM. The session was conducted by two esteemed resource persons, **Dr. S. D. Sathish Kumar** and **Dr. R. Janani**, Assistant Professors in the Department of Mechanical Engineering.



Symposium, Seminars, Workshops, Webinars organized by the faculty members

Workshop organized on “Design Thinking”

On February 14, 2025, the department hosted an impactful workshop on Design Thinking in its seminar hall, drawing 80 students eager to explore methodologies that foster innovation and creative problem-solving. Dr. S. Arumugam, Head of the Mechanical Engineering Department, introduced distinguished design thinking specialists at the event. Renowned experts Prof. Shiva Subramaniam and Prof. Sivakumar Srinivasan from IIT Madras delivered captivating lectures, showcasing practical applications in engineering through real-world case studies. Dr. D. Vijayan, Assistant Professor, expertly coordinated the event, encouraging meaningful engagement between students and speakers. Attendees exhibited impressive enthusiasm, actively participating in discussions and hands-on activities that linked theoretical concepts to engineering challenges. The workshop empowered students to adopt structured creativity, reinforcing the department's commitment to advanced, solutions-focused education.



Prof. Shiva Subramaniam, IIT-Madras and Prof. Sivakumar Srinivasan, IIT-Madras delivering lectures



A gathering of participants at the workshop.

Drone training program @ M/s Zuppa Technolgy

Our mechanical engineering professors, **Dr. K. Palani and Dr. S. Vijayabaskar**, participated in an extensive drone training program from November 18 to November 20, 2024, at M/s. Zuppa Technology in Chennai. The training covered essential topics including an Introduction to Drone Operations, Drone Manufacturing and Assembly, and Drone Tuning. A special outdoor flying session offered practical experience, improving their skills in drone control and navigation.



Symposium, Seminars, Workshops, Webinars participated by the faculty members

S. No	Name of the Faculty	Name of the FDP / Seminar / Workshop / Webinar / Conference, etc.	Venue	Date
1.	Dr. S. Arumugam	Two-Week online Faculty Development program on "INDUSTRY 4.0/5.0".	Department of Mechanical Engineering, Prasad V Potluri Siddhartha Institute of Technology, Vijayawada, AP.	15/04/2024 to 27/04/2024
2.	Dr. S.D. Sathish kumar	Two-Week online Faculty Development program on "INDUSTRY 4.0/5.0".	Department of Mechanical Engineering, Prasad V Potluri Siddhartha Institute of Technology, Vijayawada, AP.	15/04/2024 to 27/04/2024
3.	Dr. S.D. Sathish kumar	5 Days Hybrid Mode Faculty Development Program on "Industry 4.0: Technological Evolution"	Department of Mechanical Engineering, Techno College of Engineering, Agartala, AP.	01/05/2024 to 05/05/2024
4.	Dr. G. Venkata koteswara rao	Two-Week online Faculty Development program on "INDUSTRY 4.0/5.0"	Department of Mechanical Engineering, Prasad V Potluri Siddhartha Institute of Technology, Vijayawada, AP.	15/04/2024 to 27/04/2024
5.	Dr. S.D. Sathish kumar	International Workshop/Training Program on capacity building program in cyber security and its Investigation	Research Foundation of India and RFI - CARE	10/06/2024 to 17/06/2024
6.	Dr. S.D. Sathish kumar	Webinar on "UHV - An Introduction"	Department of ECE & EIE, in association with UHV Cell.	25/06/2024
7.	Dr. S. Vijaya bhaskar	5-Days Online FDP on "Latest Trends in Additive Manufacturing"	Dr. M.G.R. Educational and Research Institute, Chennai.	13/11/2024 to 17/11/2024
8.	Dr. D. Vijayan	5-Days Online FDP on "Latest Trends in Additive Manufacturing"	Dr. M.G.R. Educational and Research Institute, Chennai.	13/11/2024 to 17/11/2024
9.	Dr. P. Vithya	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024	Jointly organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.	28/06/2024 to 29/06/2024
10.	Dr. P. Vithya	Webinar on "UHV - An introduction"	Department of ECE & EIE, in association with UHV Cell, SCSVMV.	25/06/2024

Symposium, Seminars, Workshops, Webinars participated by the faculty members

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11.	Dr. S. Arumugam	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024	Jointly organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.	28/06/2024 to 29/06/2024
12.	Dr. S.D. Sathish kumar	5-Day Online Workshop on "The Future of Green Energy: Emerging Trends and Technologies"	National Institute of Technology Mizoram.	05/08/2024 to 09/08/2024
13.	Dr. S.D. Sathish kumar	National Workshop on Hands on Training Programme on useful Tools to efficiently Create Research Summary"	Department of Physics, SRM Institute of Science and Technology, Ramapuram, Chennai	22/07/2024
14.	Dr. P. Vithya	NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MMTTP) of University Grants Commission (UGC)	Malaviya Mission Teacher Training Centre (MMTTC) at Staff Training and Research Institute of Distance Education (STRIDE), Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi	05/08/2024 to 14/08/2024
15.	Dr. S. Arumugam	Webinar on the impact of AI on academic publications	National institute of STEM research Chennai in association with kalinga university, Raipur	5-10-2024
16.	Dr. D Vijayan	Recent Advances in Additive Manufacturing: Fundamental to Applications	Department of Mechanical Engineering, National Institute of Technology Kurukshetra, Haryana	13/11/2024 to 17/11/2024
17.	Dr. S.D. Sathish kumar	Webinar on "Managing Finance & Funding for Startups"	Vel Tech TBI & Institution's Innovation Council, Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Avadi, Chennai-62.	19/10/2024
18.	Dr. S.D. Sathish kumar	Webinar on Building a Harmonious World: Exploring Pathways to global peace.	Research foundation of India	14/09/2024
19.	Dr. P. Vithya	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024 5-day Online FDP on "Inculcating Universal Human Values in Technical Education"	All India Council for Technical Education (AICTE)	23/09/2024 to 27/09/2024

Symposium, Seminars, Workshops, Webinars participated by the faculty members

S. No	Name of the Faculty	Name of the FDP / Seminar / Workshop / Webinar / Conference, etc.	Venue	Date
20.	Dr. R. Vinayaga moorthy	Exploring traditional indian knowledge system for Enhancing Health and Wellness	Bharath Institute of Higher Education and Research, Chennai	23/09/2024 to 27/09/2024
21.	Dr. S.D. Sathish kumar	Effective Manuscript Drafting and Ethical Application of AI for Publication in Peer – Reviewed International Journal (FDP AIP)	Eudoxia Research University, ERU – USA.	30/09/2024 to 8/10/2024
23.	Dr. S.D. Sathish kumar	International seminar on Advanced Materials for Sustainable Development for Energy Applications	Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai – 600089, Tamil Nadu	09/11/2024
24.	Dr. S.D. Sathish kumar	5 Days Online national FDP Under the theme “Education Insights in the O.B.E Era”	DJ Academy of Research and Innovations	25/11/2024 to 29/11/2024
25.	Dr. S.D. Sathish kumar	5 Days Online national FDP Under the theme “Education in New Age Scenario”	DJ Academy of Research and Innovations	28/10/2024 to 01/11/2024
26.	Dr. G. Venkata koteswara rao	International FDP on Advanced thermal energy systems Production, Storage and Transfer	Vishnu institute of technology Bhimavaram in association with Kumamoto University Japan	17/09/2024 to 21/09/2024
27.	Dr. G. Venkata koteswara rao	International FDP on sustainability and Research in Modern Mechanical Engineering	Madanapalle institute of technology and Science	23/09/2024 to 29/09/2024

Articles presented by the faculty members

- **S. Arumugam**, Performance Investigation of Rapeseed oil based Biodegradable Refrigeration oil /Natural Refrigerant R717 In Refrigeration Systems, International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024, Jointly Organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.
- **S. Arumugam**, Experimental Analysis of Copper Oxide nano based Biodegradable Refrigeration Oil in R717 Refrigeration Systems for Sustainable Solutions, International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024, Jointly Organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.
- **P. Vithya**, Experimental Analysis of Copper Oxide nano based Biodegradable Refrigeration Oil in R717 Refrigeration Systems for Sustainable Solutions, International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024, Jointly Organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.
- **P. Vithya**, Performance Investigation of Rapeseed oil based Biodegradable Refrigeration oil /Natural Refrigerant R717 In Refrigeration Systems, International Conference on Recent Trends in Science, Technology and Management (ICRTSTM) 2024, Jointly Organized by Bharati Vidyapeeth's College of Engineering for Women, Pune, Maharashtra, India & RSP Conference Hub, Coimbatore, Tamilnadu, India.
- **A. Nandakumar**, "Experimental investigation of sustainable grinding Performance of nano sic reinforced al matrix composites Using MQL" CRATE-2025 organized by VEMU Institute of Technology, February 2025.
- **A. Nandakumar**, "Study of Characteristics of nano particles reinforced with metal Matrix composites" CRATE-2025 organized by VEMU Institute of Technology, February 2025.
- **Dr. Venkatakoteswara rao. G & Dr. S. Arumugam** Studying the Molecular Interaction and Rheological Characteristics of Tilapia Oil as a Lubricant Additive in 5th National virtual Conference on Recent Advances in Technology & Engineering (CRATE-2025) organized by VEMU Institute of Technology (Autonomous), Chittoor, Andhra Pradesh, India, during 27 - 28, February 2025
- **Janani. R**, "Design and Analysis of Polynomial Control Approach based PI Controller for Multivariable Process", in International Conference on Sustainable Materials and Technologies in VLSI and Information Processing, organized by Kalasalingam Academy of Research and Education, during 12/12/2024 and 13/12/2024.
- **Janani. R** and **N.C.A. Boovarahan**, "Adaptive Resource Management in Massive Machine-Type Communications Using Reinforcement Learning", in Advanced Network Technologies and Intelligent Computing, organized by Banaras Hindu Univeristy, Varanasi, during 19/12/2024 and 21/012/2024.
- **S. Arumugam** presented a paper entitled 'design and fabrication of a green treadmill' in national conference on mechanical and automobile engineering NCMAE-24 on 14th December 2024 at delhi.

Articles published by the Faculty members

1. **Nandakumar, A., Rajmohan, T., Vijayabhaskar, S.** (2024). Sustainable Grinding Performances of Nano SiC Reinforced Al Matrix Composites Under Minimum Quantity Lubrication (MQL). In: Ikhmayies, S.J. (eds) Advanced Composites. Advances in Material Research and Technology. Springer, Cham.
2. **Arumugam Shanmugasundaram & Sivakumar Krishnamoorthy** (06 Feb 2024): A systematically evolved method for the effective use of essential oil blends for the structural maintenance of palm leaf manuscripts, Journal of the Institute of Conservation, DOI: 10.1080/19455224.2023.2297867.
3. **S. Baskar, S. Arumugam, Sivakumar Krishnamoorthy**, "Yield enhancement through synergism by ultrasonication assistance in the transesterification of fig seed oil using waste fig leaves catalyst", Journal of Industrial and Engineering Chemistry, 2024.
4. **Arumugam S, Baskar S, Sriram G**, Intensification of oil yield from Kokum seeds: An energy-efficient extraction using ultrasonication technique, Chemical Engineering and Processing - Process Intensification, Volume 196, 2024, 109679.
5. **S. D. Sathishkumar**; Design and analysis of leaf spring by using composite materials. AIP Conference Proceedings, 7 May 2024; 2853 (1): 020297. <https://doi.org/10.1063/5.0197546>.
6. **M. Ekambaram and R. Vinayagamoorthy (2024)**. Multi-objective Optimization Using Grey Relational Analysis in Selection of Nano Hybrid Sintered Composites for Drone Propeller Mount Application, International Journal of Scientific Research in Engineering and Management, 8 (7): 1-4.
7. **Vithya Pachaiyappan, Sriram Gopalasamy & Arumugam Shanmugasundaram**, Performance and lubricity assessment of a refrigeration system charged with sustainable refrigeration oil-refrigerant environment- an alternative to petroleum-based lubricants, Petroleum Science and Technology, 2025, pp.1-23. doi: 10.1080/10916466.2025.2464878
8. **Boovarahan, N.C.A., Janani, R. (2025)**. Adaptive Resource Management in Massive Machine-Type Communications Using Reinforcement Learning. In: Advanced Network Technologies and Intelligent Computing. ANTIC 2024. Communications in Computer and Information Science, vol 2336. Springer, Cham. https://doi.org/10.1007/978-3-031-83796-8_21
9. **S Arumugam, Chengareddy Peddamangari Venkatesulu Reddy, Tamlarasan Arulvalavan, Sriram Gopalasamy** published a paper entitled 'Ultrasound supported synthesis of waste mangifera indica linn biodiesel: an optimization using whale algorithm', Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, vol-47, issue - 1, P. No - 1695-1709

Books and chapters in edited volumes published by the faculty members

1. **Venkatakeswararao, G., Vinayagamorthy, R.** (2023). Friction and Wear Behaviour of Amygdalus-Based Green Composites. In: Sethuraman, B., Jain, P., Gupta, M. (eds) Recent Advances in Mechanical Engineering. STAAAR 2022. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-99-2349-6_41.
2. **R Vinayagamorthy, G Venkatakeswararao**, Tribological investigations on Senegalia catechu based green composites, Recent Advances in Material, Manufacturing, and Machine Learning Proceedings of 2nd International Conference (RAMMML-23).
3. **Dr. D. Vijayan, (2024)** Nanotechnology in Engineering: Applications and Challenges, Futurescope: Multidisciplinary Research for Better Tomorrow (Volume – 1), ISBN: 978-93-5809-826-8.
4. **Dr. D. Vijayan, (2024)** The Impact of 3D Printing on Manufacturing and Design, Futurescope: Multidisciplinary Research for Better Tomorrow (Volume – 1), ISBN: 978-93-5809-826-8.
5. **Dr. D. Vijayan, (2024)** Advancement in Renewable Energy Technologies: Engineering Perspectives, Futurescope: Multidisciplinary Research for Better Tomorrow (Volume – 1), ISBN: 978-93-5809-826-8.

Guest corner

An esteemed guest, Sri K. N. Radhakrishnan, Director and Chief Executive Officer of TVS Motors Limited, visited our department on March 15, 2025. He inquired about our lab facilities and the ongoing research within the department. Dr. S. Arumugam, the head of the department, warmly welcomed the guest along with the honorable Pro-Vice Chancellor, Prof. Dr. R. Vasanth Kumar Metha, during this occasion.



Significant reportable activities

Drone ambulance



Mr. P. Ezhilarasan, PG student, M.E.(Engineering Design) participated in the CAD FEST (12th Edition) organized by L&T. He is the winner in modelling of Remote-Controlled Drone Ambulance using CREO Parametric software.

"Mechanical Engineering Students Excel at NextGen3D Internship, Mastering 3D Printing and Additive Manufacturing"



Mechanical Engineering Students during their Internship

Our mechanical engineering students recently completed an enriching internship at NextGen3D from October 15-19, 2024. During this immersive experience, they gained hands-on knowledge in 3D printing and additive manufacturing, working on projects that included designing and prototyping custom products for clients. Under the guidance of skilled mentors, the students enhanced their technical, creative, and operational skills, exploring advanced materials and post-printing processes. This internship provided a valuable opportunity to merge theoretical knowledge with practical implementation, fostering innovation and sustainable manufacturing practices.

Placement details

S No	Name of the company	Number of students selected
1	Rinex Technologies	2
2	Motherson Automotives Ltd.	8
3	Skill Forge E-Learning Solutions Pvt Ltd	1
4	Axels india ltd	2

Jagadguru Vacanam

இகத்குரு வசனம்
 க்ருஷ்ண பரமாத்மா சொன்னது ஜிநாஸு (ஜிஞ்ஞாஸு) - ஞானத்தை விரும்புவர்கள். அதாவது லௌகிகமான ஞானத்தை, எழுந்தறிவை விரும்புவர்கள், விஞ்ஞானத்தை விரும்புவர்கள், கணிதத்தை விரும்புவர்கள், யுகோளத்தை விரும்புவர்கள், ரஸாயன ஸாஸ்திரத்தை விரும்புவர்கள், இப்படியான பொளதிக ஞானத்தை - ஆகாஸ ஸாஸ்திரம், அந்தரிக்ஷ ஸாஸ்திரத்தை விரும்புவர்கள் - இப்படியாக உலகத் தேவைக்கான, சாப்பாட்டிற்கான தேவையை, ஸீதோஷ்ண ஸமநிலைக்கான படிப்பை, த்ருப்திக்கான படிப்பை, அக்ஷர ஞானத்தை விரும்புவர்கள் என்னைத் தேடுகிறார்கள், என்னிடம் வருகிறார்கள். இந்த ஜிஞ்ஞாஸு என்பது ரொம்பவும் முக்கியமானது.

விரும்பும் - விரும்பத்தை ஏற்படுத்தலாம், அதிகரிக்கலாம், ஆனால் திணிக்க முடியாது. விரும்பத்தை திணிக்க முடியாது. குழந்தைகள் முதற்கொண்டு நாம் பார்க்கிறோம், மூன்று வயது குழந்தையோ, நாலு வயதோ, குழந்தை முதற்கொண்டு, விரும்பத்தை திணிப்பதை அவர்களே ஏற்றுக் கொள்வதில்லை, அப்பழமாகத் தானே, நாற்பது வயலோ, என்பது வயதுக்காரர்களோ (ஏற்பார்கள்). விரும்பத்தை ஏற்படுத்தலாம், உருவாக்கலாம், அதிகரிக்கச் செய்யலாம், எல்லாம். இந்த ஞானம் வேண்டும் என்கிற ஆசை வேண்டும்.

Jagadguru Vacanam
 Kṛṣṇa Paramātmā talked about ஜிநாஸு (jīñāsū)—those who seek jñāna. That is, He said that those who desire laukika (worldly) jñāna, literacy, science, mathematics, geography, chemistry, and various forms of bhautika jñāna (material knowledge)—those who seek ākāśa śāstra (astronomy) and antarikṣa śāstra (space sciences)—thus, all those who seek knowledge for worldly needs, food, balance in śītoṣṇa (heat and cold), satisfaction, and akṣara jñāna (spiritual wisdom), seek Me and come to Me. Jīñāsū is very significant.

Regarding desire, desire can be nurtured and increased, but you cannot force it. You cannot impose desire. We can observe it from childhood itself—even a child who is three or four years old does not accept forced desires. Only later, at forty or eighty years old, they may adopt it on their own. Desire can be cultivated, shaped, and enhanced. Above all, there should be a longing for jñāna.



Śrī Śāṅkarī
 June 4, 2025
 Anugraha Bāṣhanam -
 Sankaralayam, Chetpet, 2016

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