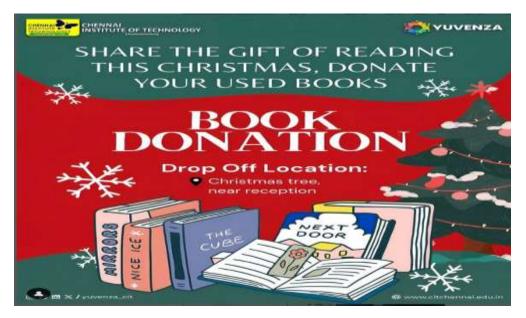
SDG Events - 2024

Book Donation



As part of the Christmas celebrations, Chennai Institute of Technology is organizing a Book Donation to spread the joy of learning and give back to the community. This festive season, we encourage students, faculty, and staff to donate new or gently used books for a cause close to our hearts. The books will be distributed to underprivileged children, schools, and libraries in need, helping to brighten their future and inspire a love for reading. By donating, you're not just sharing books, but offering opportunities for growth, education, and empowerment.

Blood Donation Camp

		nif 🙉
BLOOD	Lions	a de la
DONATION Be a hero Save Aires	SAM	
24 TH February, 2024 SATURDAY SATURDAY SATURDAY		
F In 10 citchennal_engineering	() www	v.citchennai.edu.in

Chennai Institute of Technology, in association with the Lions Blood Bank, proudly presents a Blood Donation Camp with the theme "*Be a Hero, Save Lives*". This noble initiative aims to raise awareness about the importance of blood donation and encourage individuals to actively participate in saving lives.



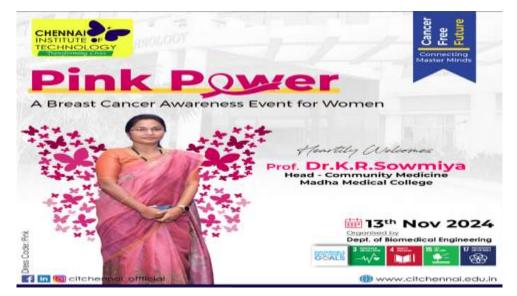
Expert Interaction on Organ Donation & Transplantation

This session will delve into the critical intersection of biomedical engineering and the medical field of organ donation and transplantation. Students will gain valuable insights into how their engineering knowledge can play a transformative role in advancing medical technologies and improving patient outcomes in organ transplant procedures.

World Day Against Child Labour



Every year, 12th June marks World Day Against Child Labour, a global initiative aimed at raising awareness about the issue of child labor and its devastating impact on children, families, and communities around the world. This day serves as a call to action for governments, organizations, and individuals to come together and fight against the exploitation of children in work that deprives them of their childhood, education, and potential.



Awareness Event for Women

Pink Power, an empowering Breast Cancer Awareness Event for Women, aimed at educating and supporting women in the fight against breast cancer. With this event will bring together health experts, survivors, and the community to spread crucial knowledge, encourage early detection, and offer a platform for sharing hope and inspiration.

International Women's Day



International Women's Day Celebration, an empowering event designed to honor and celebrate the achievements of women in various fields, with a special focus on technology, leadership, and creativity. This event is aimed to recognizing the role of women in shaping the future of technology and society while promoting gender equality and women's empowerment. The event will feature a Tech Talk, Panel Discussion, and a Talent Hunt, each designed to inspire, educate, and provide a platform for women to showcase their skills and leadership qualities.

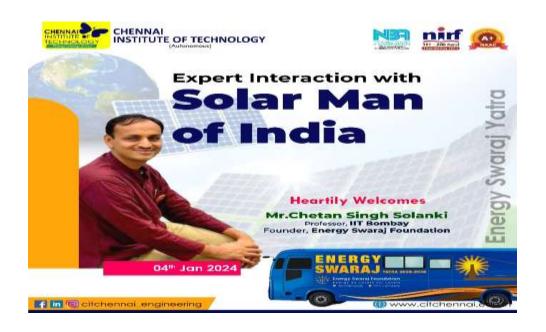
Small Steps Big Impact

CHENNAI ecting our planet ts with <mark>YOU</mark> G International EARTH DAY 2024 😭 🛄 📵 citchennai_engineering www.citchennal.edu.in

International Earth Day Celebration on 22nd April, focusing on the theme "Small Steps, Big Impact." This event aims to inspire and educate the campus community about the importance of environmental sustainability and the significant difference each individual can make in preserving our planet. It is a global observance dedicated to environmental protection, urging us to take action against climate change, pollution, and the depletion of natural resources. The theme "Small Steps, Big Impact" emphasizes that every small action counts, and when multiplied by millions of people, these actions create lasting change for our planet.

Expert Interaction with Solar Man of India

Expert Interaction with Mr. Chetan Singh Solanki, the Solar Man of India, a visionary leader in the field of renewable energy, particularly solar power. This event will provide students, faculty, and professionals with a unique opportunity to hear from one of the foremost experts in the field of solar energy, as Mr. Solanki shares his insights, experiences, and knowledge about the future of solar power in India and the world.



ATAL Sponsored FDP on Recent Trends in Power Engineering & E-Vehicle Technology



This FDP is designed to offer faculty members, researchers, and industry professionals an in-depth understanding of the latest advancements in power engineering and emerging technologies in the broader field of engineering. The programme, sponsored by ATAL (AICTE Training and Learning Academy), aims to provide participants with the necessary tools,

knowledge, and techniques to integrate modern power systems and engineering technologies into their academic and research work. Attendees will gain insights into cutting-edge trends that are shaping the energy sector and impacting industries worldwide.



Idea to Impact Motivational Session by Start-up Founder

This event aims to motivate and empower students, budding entrepreneurs, and aspiring professionals by providing real-world insights into the journey of transforming an innovative idea into a successful business venture. The session will be led by a successful start-up founder who has navigated the challenges of entrepreneurship, innovation, and growth to create a lasting impact. The founder will share their journey, struggles, and success stories, providing attendees with practical advice and inspiration for launching their own ventures and turning their ideas into impactful realities.

MSME IDEA Hackathon 4.0



MSME IDEA HACKATHON 4.0, an innovation-driven event aimed at fostering creativity, entrepreneurship, and technological solutions within the Micro, Small, and Medium Enterprises (MSME) sector. This hackathon is an opportunity for students, innovators, entrepreneurs, and industry experts to collaborate, ideate, and develop cutting-edge solutions that can address the challenges faced by MSMEs in India. The Event is designed to encourage participants to think beyond conventional solutions and explore novel ideas that can contribute to the growth, scalability, and sustainability of MSMEs in various industries such as manufacturing, agriculture, services, and technology.

Trainer of Trainers (ToT)



The Trainer of Trainers (ToT) Program for MSME Mentors is an innovative initiative aimed at equipping mentors with the tools, knowledge, and expertise needed to guide and support entrepreneurs in the Micro, Small, and Medium Enterprises (MSME) sector. This program is being

organized by the Entrepreneurship Development and Innovation Institute (EDII) of Tamil Nadu, in association with the Commissionerate of Industries & Commerce. The 2024 edition of ToT will focus on enhancing the skills of mentors who will, in turn, support the growth of MSMEs in the region. Through an interactive curriculum, expert sessions, and hands-on training, mentors will gain a deeper understanding of MSME schemes, entrepreneurial development, and the importance of innovation in the success of businesses.

Innovation Voucher Program Bootcamp



This is an exciting and transformative event designed to support aspiring entrepreneurs, researchers, and innovators. The bootcamp aims to guide participants through the process of turning innovative ideas into viable products or services by providing them with valuable tools, mentorship, and access to resources. The Innovation Voucher Program (IVP) is a government-backed initiative to help startups and SMEs with funding for research and development, which can be used to scale innovative solutions. This bootcamp will equip participants with the necessary knowledge, skills, and industry insights to leverage the Innovation Voucher Program and transform their ideas into real-world innovations. Whether you're in the early stages of a startup or looking to scale your existing business, this event will help you navigate the challenges of commercialization and innovation.

Idea to Impact Motivational Session



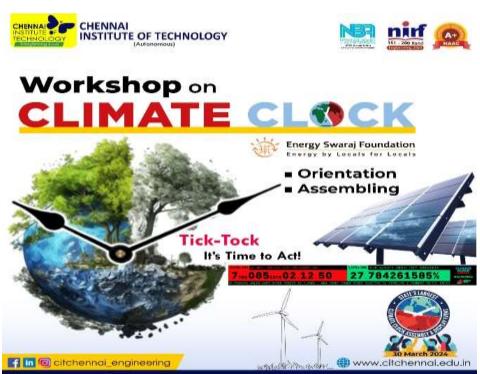
This event is designed to motivate and empower students, aspiring entrepreneurs, and innovators by sharing real-world insights into how a simple idea can be transformed into a successful, impactful business. The session will be led by a dynamic start-up founder who has successfully navigated the entrepreneurial journey, overcoming challenges and capitalizing on opportunities to turn their vision into reality. Participants will gain valuable advice on the entrepreneurial mindset, strategies for success, and practical steps to move from ideation to execution.

Winter School in Geospatial Technologies

A specialized training program aimed at equipping participants with the knowledge and skills required to excel in the rapidly evolving field of Geospatial Technologies. Geospatial technologies, including Geographic Information Systems (GIS), Remote Sensing, Global Positioning System (GPS), and Spatial Data Analysis, play a pivotal role in industries ranging from urban planning and environmental monitoring to agriculture, disaster management, and more. The Winter School is designed to provide hands-on experience, cutting-edge knowledge, and real-world applications of geospatial technologies, ensuring that participants are well-prepared for careers in this high-demand sector.



Workshop on Climate Clock



An innovative and hands-on event aimed at raising awareness about climate change and providing participants with the knowledge and skills to assemble and understand the Climate Clock. This workshop will explore how the Climate Clock works as a real-time countdown to

critical climate thresholds, fostering a sense of urgency to combat climate change. Participants will gain valuable insights into the importance of sustainability, climate action, and how technology can serve as a tool for change.

World Environment Day



A global initiative that encourages action to protect our planet and raise awareness about environmental challenges. Every year, World Environment Day is celebrated with a unique theme, and this year, the focus will be on "Restoring Ecosystems"—highlighting the need to conserve and rejuvenate our natural surroundings to combat climate change and preserve biodiversity. This event will bring together students, faculty, environmentalists, and activists to reflect on the pressing environmental issues of our time and take collective action toward building a sustainable future. Through a series of interactive sessions, workshops, and activities, we will explore how each individual can contribute to protecting the environment and restore the health of ecosystems worldwide.

Indian National Maritime Day

An event dedicated to recognizing and honoring the significance of the maritime industry in India's economic growth, global trade, and national security. Indian National Maritime Day, observed on April 5th every year. This day highlights the vital role of the shipping industry, maritime safety, and environmental protection. This celebration will feature a series of lectures, panel discussions, workshops, and interactive sessions aimed at educating students, professionals, and maritime enthusiasts about the importance of the maritime sector in shaping the future of India's economy and international standing.



SDG Hackathon



A dynamic event designed to foster innovative solutions addressing the Sustainable Development Goals (SDGs) outlined by the United Nations. The hackathon brings together talented students, professionals, and innovators to work collaboratively on technology-driven solutions that tackle some of the world's most pressing challenges, from climate change and poverty eradication to gender equality and quality education. In alignment with the 17 SDGs, participants will have the opportunity to develop practical, scalable, and impactful solutions that can contribute to global sustainability, while gaining valuable skills in problem-solving, design thinking, and team collaboration.

CITIL's SDG Ideathon



A unique event designed to inspire and empower students, innovators, and change makers to come together and create actionable ideas that contribute to the Sustainable Development Goals (SDGs). This event aims to harness the power of innovation, creativity, and collaboration to address some of the world's most pressing challenges, from climate change to poverty alleviation, quality education, and gender equality. The SDG Ideathon encourages participants to think big, challenge the status quo, and propose impactful solutions that align with the United Nations' 17 SDGs. Whether you're a student, a budding entrepreneur, or a passionate advocate for social change, this event provides the perfect platform to turn ideas into action and make a tangible difference.

SUSTAINABLE DEVELOPMENT GOALS

PUBLICATIONS

SDG 1 – No Poverty

- Precision poverty evaluation: Leveraging generalized linear models and XG boost algorithms Gopal, J.N., Muthukaruppasamy, S., Thomas, A.S., Arul, D.A.I., Jose Anand, A. Smart Technologies for Sustainable Development Goals: No Poverty, 2024.
- A Novel Approach to Design Secured and Privacy Enabled Health Data Linkage System based on Cyber Security Principles Gayathri, S., Jaya Mabel Rani, A., Anushalin, P.S., ...Jeyalaxmi, M., Samuthira Pandi, V.S. 2024 IEEE International Conference on Big Data and Machine Learning, ICBDML 2024.

SDG 2 – Zero Hunger

- 1. A relation network for plant disease detection based on fewshot learning Hemalatha, S., Jayachandran, J.J.B. IAES International Journal of Artificial Intelligence, 2024
- Sustainable development of agro bio-mass waste based AA6061-Tungsten carbide hybrid reinforced composites: A comprehensive performance investigation Bose, P., Thirugnanasambandam, A., Pullela, P.K., ...Gupta, M., Alarifi, A.S. Ceramics International, 2024
- Revolutionizing UAV: Experimental Evaluation of IoT-Enabled Unmanned Aerial VehicleBased Agricultural Field Monitoring Using Remote Sensing Strategy Gireesh Babu, C.N., Abbas, S.H., Annamalai, L., ...Yadav, T.N., Aarthi, R. Remote Sensing in Earth Systems Sciences, 2024
- 4. A Multitask Learning-Based Vision Transformer for Plant Disease Localization and Classification Hemalatha, S., Jayachandran, J.J.B. International Journal of Computational Intelligence Systems, 2024
- 5. Explainable AI-based Model Interpretability for Tomato Leaf Disease Identification Gowri, P., Aathilakshmi, S., Sivapriya, G., Ashika, K., Aswin, P. 2024 15th International conference on computing communication and networking technologies, ICCCNT 2024.
- 6. AI-Driven Indoor Farming: An Algorithmic Approach to Sustainable Agriculture Sankaradass, V., Saranya, K. Communications in Computer and Information Science, 2024

- Enhancing Remote Sensing Image Classification using Arithmetic Optimization Algorithm with Deep Learning Approach Shanthi, R., Balasubramaniam, D., Venkatesh, R., ...Manimaran, V., Basha, S.H. 2nd IEEE International Conference on Advances in Information Technology, ICAIT 2024.
- Green Leaf Disease Detection Using Raspberry Pi and Random Forest Machine Learning Algorithm: An Automated Approach for Precision Agriculture Ranganathan, C.S., Basha, A.A.J., Vijayalakshmi, A., ...Sujatha, S., Sasikala, C. 2024 10th International Conference on Smart Computing and Communication, ICSCC 2024
- 9. Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024
- Neural Network-Based Automated Soil Salinity Mapping and Remediation Using Wireless Sensor and Cloud Computing Shadaksharappa, B.K., Sriram, S.V., Swathy, R., ...Meenakshi, R., Suganya, J. Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024
- 11. Reshaping agriculture using intelligent edge computing Preetha Evangeline, D., Chelliah, P.R., AnandhaKumar, P. Advances in Computers, 2024

SDG 3 – Good Health and Well Being

- A substituent-modified new salicylaldehyde-diphenyl-azine based AIEgen: A promising skeleton for copper ion sensor Jain, A., De, S., Mukherjee, D., ...Santibanez, J.F., Barman, P. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2024
- 2. From Concept to Cure: The Road Ahead for Ruthenium-Based Anticancer Drugs Swaminathan, S., Haribabu, J., Karvembu, R. ChemMedChem, 2024
- Novel neural network classification of maternal fetal ultrasound planes through optimized feature selection Rathika, S., Mahendran, K., Sudarsan, H., Ananth, S.V. BMC Medical Imaging, 2024
- Artificial Intelligence-Assisted Stimulated Raman Histology: New Frontiers in Vibrational Tissue Imaging Krishnan Nambudiri, M., Sujadevi, V.G., Poornachandran, P., ...Kanno, T., Noothalapati, H.N. Cancers, 2024

- Pothole detection model for road safety using computer vision and machine learning Bidve, V.S., Kakade, K.S., Bhole, R.H., ...Borde, S.P., Kediya, S.O. IAES International Journal of Artificial Intelligence, 2024
- 6. Novel progress of covalent organic frameworks in the biomedicine approaches: From synthesis to cutting edge therapeutics Moharramnejad, M., Sayah, T., Ghehsareh, Z., ...Haribabu, J., Hsu, S.C.N. Journal of Drug Delivery Science and Technology, 2024
- Biomedical applications of terbium oxide nanoparticles by Couroupita guianensis aubl leaves extract: A greener approach Pandi, P., Krishnan, P., Sathish, S., Sudhahar, S. Nano-Structures and Nano-Objects, 2024
- 8. Combustion enhancement and emission reduction in RCCI engine using green synthesized CuO nanoparticles with Cymbopogon martinii methyl ester and phytol blends Sathiyamoorthi, R., Dinesh Babu, M., Devarajan, Y. Industrial Crops and Products, 2024
- Multifaceted exploration of acylthiourea compounds: In vitro cytotoxicity, DFT calculations, molecular docking and dynamics simulation studies Haribabu, J., Madhavan, G., Swaminathan, S., ...Santibanez, J.F., Ramírez-Tagle, R. International Journal of Biological Macromolecules, 2024
- 10. Targeting Glioblastoma: Efficacy of Ruthenium-Based Drugs Rasin, P., Surendran, S.S., Karthik, K.S., Haribabu, J., Sreekanth, A. Chemical Research in Toxicology, 2024
- 11. Biomolecular Interactions and Anticancer Mechanisms of Ru(II)-Arene Complexes of Cinnamaldehyde-Derived Thiosemicarbazone Ligands: Analysis Combining In Silico and In Vitro Approaches Vadakkedathu Palakkeezhillam, V.N., Haribabu, J., Kumar, V.S., ...Dharmasivam, M., Sreekanth, A. ACS Applied Bio Materials, 2024
- Small molecule interactions with biomacromolecules: selective sensing of human serum albumin by a hexanuclear manganese complex - photophysical and biological studies Khatun, R., Dolai, M., Sasmal, M., ...Haribabu, J., Ali, M. Journal of Materials Chemistry B, 2024
- Brain tumor classification and segmentation using deep learning approach Suresh Kumar, R., Vasanth Raj, P.T., Praveen, K., ...Vedavamsi, G., Chaitanya, M.Y. AIP Conference Proceedings, 2024

- Copper(I) complexes of acylthiourea ligands: structural insights and cytotoxic potential Doss, P.A., Dharmasivam, M., Swaminathan, S., ...Bhuvanesh, N.S.P., Karvembu, R. Applied Organometallic Chemistry, 2024
- 15. Effect of coordination mode of thiosemicarbazone on the biological activities of its Ru(II)benzene complexes: Biomolecular interactions and anticancer activity via ROS-mediated mitochondrial apoptosis Haribabu, J., Arulkumar, R., Dharmasivam, M., ...Santibanez, J.F., Karvembu, R. Inorganica Chimica Acta, 2024
- 16. Computational dynamics of a fractional order model of chickenpox spread in Phuket province Jose, S.A., Yaagoub, Z., Joseph, D., Ramachandran, R., Jirawattanapanit, A. Biomedical Signal Processing and Control, 2024
- Entropy minimization of the non-Newtonian bio-hybrid (Fe O -CuO/blood) nanofluid flow over a linear extending sheet by means of induced magnetic field Jakeer, S., Bala Anki Reddy, P., Basha, H.T., Reddisekhar Reddy, S.R. International Journal of Modern Physics B, 2024
- Green Synthesis of Metal-Doped ZnO Nanoparticles Using Bauhinia racemosa Lam. Extract and Evaluation of Their Photocatalysis and Biomedical Applications Mariappan, A., Leelavathi, H., Jayanthi, E., ...Santhanaraj, D., Kanthapazham, R. ACS Applied Bio Materials, 2024
- Green-synthesized flattened rice-shaped CuO and metal doped CuO nanoparticles using Bauhinia racemosa Lam. leaves extract and their photocatalytic and biological applications Anusuya, M., Nagaveni, A., Jayanthi, E., ...Prabhu, V., Pillai, M.V. Inorganic Chemistry Communications, 2024
- 20. Platinum group metal (PGM) complexes having acylthiourea ligand system as catalysts or anticancer agents Swaminathan, S., Jerome, P., Deepak, R.J., Karvembu, R., Oh, T. Coordination Chemistry Reviews, 2024
- 21. Synthesis of nitrogen-doped graphene oxide by nanosecond pulsed laser ablation of graphene in liquid for bioimaging applications Puliyasseri, R., Haribabu, J., Ramírez-Tagle, R., Sastikumar, D. Diamond and Related Materials, 2024
- 22. Wireless sensor network technology and geospatial technology for groundwater quality monitoring Venkatesh, J., Partheeban, P., Anuradha, B., Deepa, K., Sridhar, M. Journal of Industrial Information Integration, 2024

- 23. Deep learning aided prostate cancer detection for early diagnosis & treatment using MR with TRUS images Reddy, G.S., Sankardass, V., Rani, R., Bhat, N., Rajaram, A. Journal of Intelligent and Fuzzy Systems, 2024
- 24. Air Quality Data Prediction Using Data Analytics Sidharthan, S.K., Kalaiarasan, n., Nancy, Shathik, A., Kavietha, AIP Conference Proceedings, 2024
- 25. Unraveling the Anticancer Efficacy and Biomolecular Properties of Ru(II)-Arene Complexes of Pyrene-Based Thiosemicarbazone Ligands: A Comprehensive In Silico/In Vitro Exploration Vadakkedathu Palakkeezhillam, V.N., Haribabu, J., Kumar, V.S., ...Bhuvanesh, N.S.P., Sreekanth, A. Organometallics, 2024
- 26. Bis(acylthiourea) compounds as enzyme inhibitors: Synthesis, characterization, crystal structures and in silico molecular docking studies Jerome, P., Haribabu, J., Dorairaj, D.P., ...Oh, T., Karvembu, R. Journal of Molecular Structure, 2024
- 27. Crushing behavior optimization of octagonal lattice-structured thin-walled 3D printed carbon fiber reinforced PETG (CF/PETG) composite tubes under axial loading Sivakumar N.K., Palaniyappan S., Kumar V., Alodhayb A.N., Madhan kumar A. Polymer Composites, 2024
- 28. Analysis of Obese Patients Using Machine Learning to Categorize Hidden Risk Factors in Explorative Assessment Krishnamoorthy, R., Tanaka, K., Thiagarajan, R. International Exchange and Innovation Conference on Engineering and Sciences, 2024
- 29. Green Leaf Disease Detection Using Raspberry Pi and Random Forest Machine Learning Algorithm: An Automated Approach for Precision Agriculture Ranganathan, C.S., Basha, A.A.J., Vijayalakshmi, A., ...Sujatha, S., Sasikala, C. 2024 10th International Conference on Smart Computing and communication, ICSCC 2024
- 30. Machine learning models to identify lead compound and substitution optimization to have derived energetics and conformational stability through docking and MD simulations for sphingosine kinase Dhanabalan A.K., Velmurugan D., Haribabu J., Gunasekaran K. Molecular Diversity, 2024
- 31. Leveraging IoT for Real-Time Air Quality Sensing and Optimization in Vehicle Interiors using Gradient Boosting Algorithm Muthukumaran, D., Ranganathan, C.S., Sivapriya, N., ...Sankar, T.C., Sasikala, P. ICEPE 2024 – 6th International Conference on Energy, Power and Environment: Towards Indigenous Energy Utilization, 2024

- 32. Virtual screening, molecular docking and dynamics simulation studies to identify potential agonists of orphan receptor GPR78 targeting CNS disorders Garisetti, V., Varughese, R.E., Anandamurthy, A., ...Allard Garrote, C., Gayathri, D. Journal of Receptors and Signal Transduction, 2024
- 33. Phytochemical analysis of the methanolic extract from the mangrove species Avicennia marina plant species inhabited in coastal water Govindhan, P. Natural Product Research, 2024
- 34. Exploring the Experimental Possibilities of an Intelligent Blood Pressure Prediction Scheme using IoT enabled Machine Learning Principles Thilagam, T., Rajarajeswari, S., Shobana, D., ...Bharathi, M., Annamalai, B. 2024 4th International Conference on Intelligent Technologies, CONIT 2024
- 35. The Development of Inference in Healthcare System using FEFL System Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 36. A Way to Design Data Transfer System Modelling to Secure and Transmit Data with the Help of Fuzzy Based Logic in Healthcare System Ramakrishnan, R., Kumar, V.S.P., Pillai, B.G., ...Rastogi, S., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 37. Development of Medical IOT System for the Prediction of Heart Disease Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 38. Fog Computing Integrated with and Blockchain Technology for Accurate Disease Prediction Ramakrishnan, R., Verma, A., Kumar, V.S.P., ...Pillai, B.G., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 39. An Intensive Review Analysis about Fuzzy Logic usage in Smart Medical Care System Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 40. Assessment of biodegradability and biocompatibility: An experimental and comparative analysis of magnesium and magnesium-(zinc-tin)/hydroxyapatite composites Narayanappa, C.C., Nagappan, B., Vignesh, P., Thirugnanasambandam, A. Proceedings of

the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2024

- 41. Lung Cancer Classification based on Auxiliary Classifier (WGAN) Optimised with HOA from CT Images Suganthy, M., Krishnamoorthy, R., Nagarajaiah, K., Daya Sagar, K.V. IETE Journal of Research, 2024
- 42. A Smart and Systematic Vehicle Headlight Operations Controlling System based on Light Dependent Resistor Sumithra, J., Sumalatha, A., Vanitha, A., ...Samuthira Pandi, V.S., Ravi, S. Proceedings of the 2nd International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics, ICIITCEE 2024
- 43. Numerical simulation of bio-magnetic nanofluid flow in the human circulatory system Jakeer, S., Shanmugapriyan, N., Reddisekhar Reddy, S.R. Numerical Heat Transfer; Part A: Applications, 2024
- 44. Latent Semantic Analysis Based Sentimental Analysis of Tweets in Social Media for the Classification of Cyberbullying Text Joy Winnie Wise, D.C., Ambareesh, S., Ramesh Babu, P., ...John Philip, B., Senthil Kumar, A. International Journal of Intelligent Systems and Applications in Engineering, 2024
- 45. Why is implementing computational intelligence for social good so challenging? Principles and its application Preetha Evangeline, D., AnandhaKumar, P. Advances in Computers, 2024
- 46. Biomedical aspects of entropy generation on MHD flow of TiO2-Ag/blood hybrid nanofluid in a porous cylinder Shanmugapriyan, N., Jakeer, S. Computer Methods in Biomechanics and Biomedical Engineering, 2024

SDG 4 – Quality Education

- 1. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- Smart Detection Framework for Rapid Emergency Response Arjun, S.V., Bhuvaneshwari, E., Navaneethakrishnan, S.R., Sathish Kumar, P.J., Surendran, R. 2nd International Conference on Sustainable Computing and Smart Systems, ICSCSS 2024

SDG 6 - Clean Water and Sanitation

- 1. Experimental analysis of solar desalination system performance with graphene and graphitic carbon nanopaint-coated solar absorbers Mariraja, R., Harichandran, R., Vijayakumar, R., Nichelson, A. Desalination, 2024
- 2. MIWO based MPPT of PV system for induction motor driven water pumping system Anbuchandran, S., Silas Stephen, D., Arumuga Babu, M., Ananthan, B. e-Prime -Advances in Electrical Engineering, Electronics and Energy, 2024
- 3. Integration of orange peel derived carbon quantum dots with TiO for enhanced photocatalytic degradation of brilliant green dye Immanuvel, A., Sivaranjana, P., Suresh, S., ...Rameshkumar, P., Gokulakrishnan, S. Inorganic Chemistry Communications, 2024
- Groundwater Quality Prediction and Analysis Using Machine Learning Models and Geospatial Technology Bommi, R.M., Partheeban, P., Rani Hemamalini, R., Sundarambal, B. Sustainability (Switzerland), 2024
- Unveiling new insights into photocatalytic enhancement of p-n BiVO -OV/NiMoO Heterojunctions through oxygen defect engineering Bavani, T., Mani, P., Munusamy, S. Journal of Hazardous Materials Advances, 2024
- 6. Exploring the post-illumination behavior of 1D/2D-NiMoO4/Bi2 O2 CO3 heterostructure photocatalyst: Insights into the photocatalytic 'memory effect' Bavani, T., Mani, P., Munusamy, S., Gontu, R.R., Elumalai, L.K. Optical Materials, 2024
- Combined effect of grooves and nanoflower structured Co O coating on bamboo wood for highly efficient solar steam generation at indoor and outdoor conditions Rengasamy, M., Gnanasekaran, A., Eswaramoorthy, N., Basker, I., Rajaram, K. Environmental Science and Pollution Research, 2024
- 8. Critical review on water quality analysis using IoT and machine learning models Jayaraman, P., Nagarajan, K.K., Partheeban, P., Krishnamurthy, V. International Journal of Information Management Data Insights, 2024
- 9. Wireless sensor network technology and geospatial technology for groundwater quality monitoring Venkatesh, J., Partheeban, P., Anuradha, B., Deepa, K., Sridhar, M. Journal of Industrial Information Integration, 2024

- Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024
- 11. Aquatic Conservation Monitoring for River and Lake Ecosystems with IoT and Cloud Computing Veda, P., Ranganathan, C.S., Santhuja, P., ...Meenakshi, R., Suresh Babu, T.N. Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024
- Finite-Time Boundedness of Switched Time-Varying Delay Systems With Actuator Saturation: Applications in Water Pollution Control Shanmugam, S., Syed Ali, M., Narayanan, G., Rhaima, M. IEEE Access, 2024

SDG 7 – Affordable and Clean Energy

- 1. Experimental analysis of solar desalination system performance with graphene and graphitic carbon nanopaint-coated solar absorbers Mariraja, R., Harichandran, R., Vijayakumar, R., Nichelson, A. Desalination, 2024
- 2. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- 3. Investigating the synergistic effect of Nd and Ni in CuO nanocrystals on their structural, optical, and magnetic properties for photovoltaic and photocatalytic implementations Martin Mark, J.A., Nallusamy, S., Pramothkumar, A.S., ...Alrebdi, T.A., Alodhayb, A.N. Physica B: Condensed Matter, 2024
- An African vulture optimization algorithm based energy efficient clustering scheme in wireless sensor networks Kumar, M., Kumar, A., Kumar, S.P.J., Chauhan, P., Selvarajan, S. Scientific Reports, 2024
- 5. Enhanced Photocatalytic Hydrogen Evolution by TiO2 : A Synergistic Approach with Defect Rich SnS2 and Ti3C2 MXene Cocatalysts Varadarajan, S., Kavitha, A.L., Selvaraju, P., ...Shanmugan, S., Kannan, K. Hydrogen (Switzerland), 2024
- Iron-Doped Cadmium Sulfide/Graphene Oxide (Cd(1-X) Fe(X)S/GO) Nanocomposites for Photocatalytic Degradation of Toxic Pollutants Dorothy, S., Sugumar, P., Meenakshi, S., ...Dixit, S., Rajendran, K. Luminescence, 2024

- 7. Unveiling the future: A simulation and analysis of hydrogen production using 1kW electrolyzer with MATLAB approach Yaw, C.T., Paw, J.K.S., Kadirgama, K.A., ...Samylingam, L., Kok, C. Results in Engineering, 2024
- 8. DC microgrid for EV charging station with EV control by using STSM controllers Anbuchandran, S., Arumuga Babu, M., Silas Stephen, D., Thinakaran, M. Engineering Research Express, 2024
- Optimal power generation of proton exchange membrane fuel cell using ANFIS based MPPT algorithm Devakirubakaran, S., C, B., Tulasi, N.P., Balachandran, P.K., Selvarajan, S. Scientific Reports, 2024
- MIWO based MPPT of PV system for induction motor driven water pumping system Anbuchandran, S., Silas Stephen, D., Arumuga Babu, M., Ananthan, B. e-Prime -Advances in Electrical Engineering, Electronics and Energy, 2024
- 11. Quantumness of electron transport in quantum dot devices through Leggett–Garg inequalities: A non-equilibrium Green's function approach Meitei, T.Y., Krithivasan, S., Sen, A., Ali, M.M. Physica A: Statistical Mechanics and its Applications, 2024
- 12. A low-cost localization method in autonomous vehicle by applying light detection and ranging technology Raju, J.K., Amru, M., Muthumarilakshmi, S., ...Muthukumaran, D., Murugan, S. Indonesian Journal of Electrical Engineering and Computer Science, 2024
- 13. Studies on fuels and engine attributes powered by bio-diesel and bio-oil derived from stone apple seed (Aegle marmelos) for bioenergy Sriariyanun, M., Elaiyarasan, U., R, S., ...Tawai, A., Thirugnanasambandam, A. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2024
- 14. Optimal design of hybrid green energy powered reduced switch converter based shunt active power filter using horse herd algorithm Srilakshmi, K., Krishnaveni, K., Gowri, N.V., ...Balachandran, P.K., Selvarajan, S. Scientific Reports, 2024
- 15. Experimental analysis of hemispherical combustion geometry of diesel engine (neem oil) biodiesel with nano additives Sampath, S., Poyyamozhi, N., Sathiyamoorthi, R., Narayana, D.R., Muthukannan, M. Interactions, 2024
- 16. Optimizing noise reduction through redesigned three-blade horizontal axis wind turbine Palanivel, A., Vijayan, R., Lakshmanan, S., ...Ramarathinam, R.P., Prasanna Venkatesh, R.V. AIP Conference Proceedings, 2024

- Synergistic effects of Co-Mn co-doping on the structural and optical properties of TiO nanospheres: Dual functions for DSSC photoanodes and degradation photocatalyst Ashok, A., Raguram, T., Jeba Beula, R., ...Cb, B.R., Vidhya, B. Journal of Alloys and Compounds, 2024
- Energy Storage and Conversion Devices: Rechargeable Batteries, Supercapacitors, and Solar Cells Eswaramoorthy, N., Shyma, A.P., Mandal, M., ...Sangaraju, S., Vivek, E. ACS Symposium Series, 2024
- MXenes and Their Composites for Energy Storage: Current Status and Future Perspectives Eswaramoorthy, N., Nallusamy, S., Selvaraj, Y., ...Mandal, M., Vivek, E. ACS Symposium Series, 2024
- Groundwater Quality Prediction and Analysis Using Machine Learning Models and Geospatial Technology Bommi, R.M., Partheeban, P., Rani Hemamalini, R., Sundarambal, B. Sustainability (Switzerland), 2024
- Comparative study on productivity of double slope solar still using different wick and energy storage materials Anburaj, P., Kathiresan, M., Vijayakumar, R., Vignesh Kumar, R. Solar Energy, 2024
- Numerical investigation to predict the impact of pre-heated air on the tar formation of cocoa pod husk gasification in a fixed bed downdraft gasifier Murugan, P.C., Joseph Sekhar, S., W, B.W. Energy, 2024
- 23. Combustion enhancement and emission reduction in RCCI engine using green synthesized CuO nanoparticles with Cymbopogon martinii methyl ester and phytol blends Sathiyamoorthi, R., Dinesh Babu, M., Devarajan, Y. Industrial Crops and Products, 2024
- 24. Enhanced tribological performance of transesterified corn oil biodiesel blends with CuO and TiO nanoparticles: Experimental analysis on wear and friction reduction using environment friendly lubricants Surakasi, R., Subramani, R., Praveenkumar, V., ...Singh Bisht, Y.S., Kumar, A. International Journal of Chemical Reactor Engineering, 2024
- 25. Dynamic Optimization and Placement of Renewable Generators and Compensators to Mitigate Electric Vehicle Charging Station Impacts Using the Spotted Hyena Optimization Algorithm Yuvaraj, T., Prabaharan, N., John de Britto, C., ...Salem, M., Nazari, M.A. Sustainability (Switzerland), 2024

- 26. Enhancing the TiO light harvesting ability boosted by Sr FeTeO additives in DSSCs Palaniyappan, S., Eswaramoorthy, N., Bojarajan, A.K., ...Gopal, R., Madeswaran, S. Materials Letters, 2024
- 27. A hybrid optimization for distributed generation and D-STATCOM placement in radial distribution network: a multi-faceted evaluation Anbuchandran, S., Arumuga Babu, M., Silas Stephen, D., Thinakaran, M. Engineering Research Express, 2024
- 28. Comprehensive energy and enviro-economic performance analysis of a flat plate solar water heater with a modified absorber Prabhu, B., Vengadesan, E., Sampath, S., Thirugnanasambandam, A. Thermal Science and Engineering Progress, 2024
- 29. Improved load frequency control in dual-area hybrid renewable power systems utilizing PID controllers optimized by the salp swarm algorithm Pushpa, S., Lakshmi, D., Shanthi, N., Arul Doss Adaikalam, I., Amudhapriya, S. International Journal of Power Electronics and Drive Systems, 2024
- 30. Comparative approach of Darcy–Forchheimer flow on water based hybrid nanofluid (Cu-Al2O3) and mono nanofluid (Cu) over a stretched surface with injection/suction Sindhu, R., Eswaramoorthi, S., Loganathan, K., Jain, R.K. Partial Differential Equations in Applied Mathematics, 2024
- 31. Solar water heater system using computational fluid dynamics-simulation study Vinayagamoorthy, M., Yuwaraj, K.R., Jayabalakrishnan, D., Harish, C.V., Mugelan, A. AIP Conference Proceedings, 2024
- 32. High throughput for different networks using modified LEACH Dhanagopal, R., Suresh Kumar, R., Vasanth Raj, P.T., ...Premil, S.M., Sudheer, S. AIP Conference Proceedings, 2024
- 33. Cu MOF-biocarbon functional catalysts as adsorbent for oxygen-linked carbon capture via thermo-catalytic pyrolysis: A low-carbon fuel synthesis strategy C, P., B., P., Katiyar, J.K., Sethu, S., Valan Arasu, A. International Journal of Thermofluids, 2024
- 34. Prediction and Optimization of a Hydrodynamic Journal Bearing's Energy Efficient Tribological Behaviours for Different Grades of Lube Oil: A Novel DoE-RSM Strategy Biswas, N., Biswas, S., Bhattacharjee, B., ...Choudhuri, K., Chakraborti, P. Arabian Journal for Science and Engineering, 2024

- 35. Yield enhancement through synergism by ultrasonication assistance in the transesterification of fig seed oil using waste fig leaves catalyst Baskar, S., Arumugam, S., Sivakumar, K. Journal of Industrial and Engineering Chemistry, 2024
- 36. Dual Modifications of TiO2/ID g-C3N4 Nano composites and Metal-Ogganic Framework-Derived Porous CuO/Carbon for High-Performance Perovskite Solar Cells Eswaramoorthy, N., Kuppusamy, S., Manoharan, K., ...Prabhakaran, D., Rajaram, K. ACS Applied Nano Materials, 2024
- 37. Mitigating Partial Shading Effects in Photovoltaic System using Intelligent Current Compensation Method Devakirubakaran, S., Priya, R.K., Dhananjaya Babu, K., Koganti, S., Deepak, M. E 2024
- 38. Assessing the exergy sustainability of a paddy drying system driven by a biomass gasifier Wincy, W.B. Environmental Science and Pollution Research, 2024
- 39. Production of biodiesel from waste cooking oil using a novel surface-functionalized CaMoO4/ TiO2 solid catalyst Govindhan, P. Renewable Energy, 2024
- 40. Smart solar maintenance: IoT-enabled automated cleaning for enhanced photovoltaic efficiency Puviarasi, R., Jayashree, K., Arul Doss Adaikalam, I., Deepa, S., Pushpa, S. Indonesian Journal of Electrical Engineering and Computer Science, 2024
- 41. Recent trends in wireless charging technologies for electric mobility systems Gopal, J.N., Muthukaruppasamy, S., Sampaul Thomas, G.A., Arul Doss Adaikalam, I., Karthikeyan, B. A Sustainable Future with E-Mobility: Concepts, Challenges, and Implementations, 2024
- Dual-functionality of CZTS nanoflakes: as an anode material for lithium-ion batteries and as a counter electrode in DSSCs - a DFT and experimental investigation Rajesh, G., Palraj, J., Venkatraman, M.R., ...Annal Therese, H.A., Flores, M.I. Energy Advances, 2024
- 43. Biomass-Derived Carbon Utilization for Electrochemical Energy Enhancement in Lithium-Ion Batteries Jeong, B., Jiang, F., Sung, J., ...Vediappan, K., Lee, C.W. Nanomaterials, 2024
- 44. Optimizing virtual power plant allocation for enhanced resilience in smart microgrids under severe fault conditions using the hunting prey optimization algorithm Yuvaraj, T., Krishnamoorthy, R., Arun, S.R., Thanikanti, S.B., Nwulu, N.I. Energy Reports, 2024

- 45. Investigation on energy, economic, and environmental aspects of double-pass solar air heater Vijayakumar, R., Vignesh Kumar, R., Madhu, P. Environmental Science and Pollution Research, 2024
- 46. Minimizing the impact of electric vehicle charging station with distributed generation and distribution static synchronous compensator using PSR index and spotted hyena optimizer algorithm on the radial distribution system Yuvaraj, T., Arun, S.R., Suresh, T.D., Thirumalai, M. e-Prime Advances in Electrical Engineering, Electronics and Energy, 2024
- 47. Combined influence of thermal barrier coating and nanoparticle on performance and emissions of DI diesel engine fueled with neat palm oil biodiesel: An experimental, statistical and energy and exergy analysis Krishnamoorthi, T., Sampath, S., Murugapoopathi, S., Vengadesan, E., Dillikannan, D. Process Safety and Environmental Protection, 2024
- 48. Solar photovoltaic cooling using Paraffin phase change material: Comprehensive assessment B, P., A, V.A., P, G., A, A.M.M.S., Thirugnanasambandam, A. Renewable and Sustainable Energy Reviews, 2024
- 49. Optimizing smart microgrid performance: Integrating solar generation and static VAR compensator for EV charging impact, emphasizing SCOPE index Suresh, M.P., Yuvaraj, T., Thanikanti, S.B., Nwulu, N.I. Energy Reports, 2024
- 50. Power control of hybrid grid-connected renewable energy system using machine learning Karthikeyan, M., Manimegalai, D., Karthikeyan, R.R. Energy Reports, 2024
- 51. Evaluation of a ZnO-NiO/rGO hybrid electrocatalyst for enhanced oxygen reduction reaction (ORR) applications Nagarani, S., Chang, J., Yuvaraj, M., ...Dipsikha Ganguly, N., Subramanian, B. New Journal of Chemistry, 2024
- 52. A comprehensive assessment on bio-mass derived form-stabilized composite phase change materials for solar thermal energy storage systems B, P., A, V.A., Nižetić, S., Arıcı, M., Ramasamy, N. Journal of Energy Storage, 2024
- 53. Biodiesel blends for eco-friendly CRDI-VCR engines: enhancing combustion and engine performance to minimize pollutant emissions Baluchamy, A., Sakthi Rajan, C., Senthamaraikannan, B., Venkatesh, J. Global Nest Journal, 2024

- 54. Entanglement preservation in tripartite quantum systems under dephasing dynamics Radhakrishnan, C., Roy, S., Chinnarasu, R., Ali, M.M. EPL, 2024
- 55. Prospectus of hydrogen enrichment in internal combustion engines: Methodological insights on its production, injection, properties, performance and emissions Jayaprabakar, J., Thirugnanasambandam, A., Gayathri, R., ...Varshini, G., Kiran Kumar, B. Fuel, 2024
- 56. Improving the efficiency of induction motor drive by flux and torque control: A hybrid LSE-RERNN approach Sivaraju, S.S., Senthilkumar, T., Sankar, R., ...Usha, S., Bin Musirin, I. ISA Transactions, 2024
- 57. Influence of ZnO/MWCNTs based hybrid electrodes for boosting the performance of photovoltaic and supercapacitor devices Eswaramoorthy, N., Rajendran, S., Bojarajan, A.K., ...Govindasamy, K., Rajaram, K. Materials Chemistry and Physics, 2024
- 58. Semi-transparent dye-sensitized solar cells (DSSC) for energy-efficient windows with microwave-prepared TiO nanoparticles as photoanodes Venkatraman, M.R., Rajesh, G., Rajkumar, S., Ananthan, M.R., Gururajan, B. Materials Letters, 2024
- 59. Fatigue, fracture toughness and dynamic mechanical behaviour of CTBN rubber toughened silane surface-modified pineapple fiber and micro B C-reinforced epoxy hybrid composites Jaiganesh, V., Vinothkumar, M., P, G. Biomass Conversion and Biorefinery, 2024
- 60. Construction of Cu-doped α-MoO3 nanostructures and their application as counter electrode in dye-sensitized solar cells Soundharaya, J., Raksha, A., Rajni, K.S., ...Eswaramoorthy, N., Raguram, T. Materials Letters, 2024
- 61. Optimizing Distribution System Resilience in Extreme Weather Using Prosumer-Centric Microgrids with Integrated Distributed Energy Resources and Battery Electric Vehicles Thirumalai, M., Hariharan, R., Yuvaraj, T., Prabaharan, N. Sustainability (Switzerland), 2024
- 62. Deep-bed drying kinetics and thermodynamic parameters of high-moisture parboiled paddy (ASD-16) in a reversible airflow fixed bed dryer Wincy, W.B., Joseph Sekhar, S., Murugan, P.C. Journal of Food Process Engineering, 2024
- 63. Cleaner production of geopolymer bricks using Solar-LPG hybrid dryer Partheeban, P., Vishnupriyan, J., Manimuthu, S., Chella Gifta, C. Journal of Cleaner Production, 2024

- 64. Intensification of oil yield from Kokum seeds: An energy-efficient extraction using ultrasonication technique S, A., Baskar, S., G, S. Chemical Engineering and Processing Process Intensification, 2024
- 65. Natural dye-sensitive solar cells (N-DSSCs) are fabricated using TiO2/1 wt% SrTiO3 as photoanodes Vignesh Prabhu, T.G., Chandrasekaran, J.H., Balasubramani, V., ...Al-Mohaimeed, A.M., Al-Onazi, W.A. Optical Materials, 2024
- 66. Thermal performance improvement in solar air heating: An absorber with continuous and discrete tubular and v-corrugated fins Vengadesan, E., Thirugnanasambandam, A., Krishnamoorthi, T., Sampath, S. Thermal Science and Engineering Progress, 2024
- 67. Nanostructured bismuth chloride based ((CH3NH3)3Bi2IxCl9-x) active layers for leadfree perovskite solar cells Palanichamy, P., Venkatraman, M.R., Govindaraj, R., Agilan, S., Velauthapillai, D. Zeitschrift fur Physikalische Chemie, 2024
- 68. Archimedes Chicken Swarm Optimization-Based Routing for Internet of Underwater Wireless Sensor Networks Suriya, N., Manickavelu, P. International Journal of Communication Systems, 2024
- 69. A Hybrid Technique for Bidirectional Smart Charging of EVs Using BLDC Motor and Bidirectional Converter Sankar, R., Sivaraju, S.S., Thangavelu, A., Sivarajan, S. IETE Journal of Research, 2024
- 70. Impact of Thermal Energy on Water and Ethylene Glycol (50:50) Based Rotating Hybrid Nanofluid Past A Riga Surface with Radiation, Homogeneous and Heterogeneous Reactions Senthilvadivu, K., Eswaramoorthi, S., Loganathan, K., Alessa, N.A. Nano, 2024
- 71. Energy-efficient FDM printing of sustainable polymers: Optimization strategies for material and process performance Subramani, R., Rusho, M.A., Karthikeyan, S., ...Neelamegam, D., Sathish, T. Applied Chemical Engineering, 2024
- 72. FPGA Implementation of Stochastic Approximate Multipliers for Neural Networks Saravanan, V., Dayana, R., Thillai Rani, M., ...Varun, M., Rosi, A. Proceedings - 1st International Conference on Electronics, Communication and Signal Processing, ICECSP 2024
- 73. Facile Synthesis of Tin Oxide (SnO2) /Reduced Graphene Oxide (rGO) Nanocomposite For Energy Storage Application 3/3/25, 8:51 AM Scopus - Chennai Institute of Technology

https://www.scopus.com/pages/organization/60114413#tab=sdgs 13/32 Rajmohan, G., Veeman, D., Srinivasan, D., Ravichandran, M.M. Materials Research, 2024

- 74. Robust Design of Floor Cleaning Robot with Smart Power Handling Abilities Based on Solar Assisted Renewable Energy Sources Sathish, K., Dhanke, A., Mohandas, R., ...Kiruthiga, R., Ranga, J.R. 5th International Conference on Electronics and Sustainable Communication Systems, ICESC 2024
- 75. Energy out of waste: kinetics and thermolysis of co-pyrolysis of biomass and municipal plastic waste Paramasivam, B., Elaiyarasan, U., R, S.P., Sriariyanun, M., Tamilarasan, N. Biomass Conversion and Biorefinery, 2024
- 76. An Innovative Ta3N5-TaON-PPY-CO-PEDOT Nanocomposite: Enhanced Electrocatalytic Sensing of Oxfendazole and Photocatalytic Dye Degradation of Malachite Green Munusamy, S., Govindhan, G., Bavani, T., ...Selvamani, M., Karim, M.R. Journal of Inorganic and Organometallic Polymers and Materials, 2024
- 77. Z-Number and DEMATEL-Based Scheme to Enhance Energy-Efficient Workflow Scheduling and Virtual Machine Consolidation for Green Cloud Computing Divya, V.L., Malathi, J., Manickam, R., ...Parvathi, S.U., Mugunthan, G. 2024 3rd International Conference on Smart Technologies and Systems for Next Generation Computing, ICSTSN 2024
- 78. Optimal allocation of battery energy storage systems using artificial intelligence techniques Yuvaraj, T., Devabalaji, K.R., Murali Krishna, T. Renewable Energy for Plug-In Electric Vehicles: Challenges, Approaches, and Solutions for Grid Integration, 2024
- Mitigation of the Impact of Incorporating Charging Stations for Electric Vehicles Using Solar-based Renewable DG on the Electrical Distribution System Yuvaraj, T., Suresh, T.D., Selvi, S.S., Balamurugan, P. Recent Advances in Electrical and Electronic Engineering, 2024
- 80. Optimal Sizing of Hybrid Power System Using Genetic Algorithm Based Partial Reinforcement Optimizer Anbuchandran, S., Mano Raja Paul, M., Prabhu, D.K., ...Ananthan, B., Jones Raj, S. Proceedings of InC4 2024-2024 IEEE International Conference on Contemporary Computing and Communications, 2024
- 81. Enhanced Cluster-Assisted Routing Protocol for Improved Energy Efficiency of Wireless Sensor Network Krishnamoorthy, R., Tanaka, K., Amina Begum, M. International

Conference on Smart Systems for Electrical, Electronics, Communication and Computer Engineering, ICSSEEC 2024

- Pyrolysis of Biomass Using Renewable Energy as A Heating Medium : A Review Mishra, S.S., Shanmugapriya, V. Proceedings -2024 3rd International Conference on Computational Modelling, Simulation and Optimization, ICCMSO 2024
- Mitigation of mismatch losses in solar PV systems: a hybrid L-shaped propagated array configuration approach Aljafari, B., Devakirubakaran, S., Balachandran, P.K., Thanikanti, S.B. Frontiers in Energy Research, 2024
- 84. Integration of Fuzzy Model with the IOT Model to Achieve Better Health(Medical) Care Design System Ramakrishnan, R., Kumar, V.S.P., Pillai, B.G., ...Rastogi, S., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 85. Computation of an Effective Hybrid DFA-SVM Approach Aimed at Adaptive PV Power Management Danila Shirly, A.R., Suganyadevi, M.V., Ramya, R., Arul Doss Adaikalam, I., Paramasivan, M. WSEAS Transactions on Power Systems, 2024.
- 86. Optimizing Routes for Improved Quality of Service in Wireless Sensor Networks through an Energy-Aware Routing Protocol for Maximizing Lifetime Ramakrishnan, R., Kumar, V.S.P., Pillai, B.G., ...Patre, S., Meenakshi, R. 2024 International Conference on Knowledge Engineering and Communication Systems, ICKECS 2024
- 87. Optimizing Power Consumption for Business Networks through Cooperative Communication in Mixed Wireless Environments Ramakrishnan, R., Kumar, V.S.P., Sanjay, C.P., ...Patre, S., Meenakshi, R. 2024 International Conference on Knowledge Engineering and Communication Systems, ICKECS 2024
- 88. A techno-assessment approach on biogas yield from organic agriculture wastes of cauliflower and grape residues Narendra, N., Thirugnanasambandam, A., Bose, P., Mariadhas, A. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2024
- Optimizing Radial Distribution System with Distributed Generation and EV Charging: A Spotted Hyena Approach Thanikanti, S.B., Yuvaraj, T., Hemalatha, R., Aljafari, B., Nwulu, N.I. IEEE Access, 2024

- 90. Design and Development of an IoT based Intelligent Energy Meter using Less Expensive Controller Unit Balasubramani, M., Gohin, B., Jayashankari, J., ...Ravi, K.C., Arumugam, D. 2024 International Conference on Intelligent Systems for Cybersecurity, ISCS 2024
- 91. Exploring the use of Biodegradable Polymer Materials in Sustainable 3D Printing Subramani, R., Ahmed Mustafa, M.A., Ghadir, G.K., ...John Rajan, A., Kumar, A.P. Applied Chemical Engineering, 2024
- 92. A systematic review on the production of biodiesel using various feedstocks and effective catalysts Govindhan, P., Munusamy, R., Rajasingh, E.C., Mahendradas, D.K. Petroleum Science and Technology, 2024
- 93. Optimizing energy efficiency in wireless sensor networks: dynamic routing with capuchin search algorithm Karthikeyan, M., Manimegalai, D., Karthikeyan, R.R. Multimedia Tools and Applications, 2024
- 94. Enhance Energy Efficiency based Automobile Wheels by using Piezoelectric Energy Harvesting Technology and Sustainable Power Generation Dadi, P.S., Meera, R., Kalimuthu, R., Surendran, R. Proceedings of the 2nd IEEE International Conference on Networking and Communications 2024
- 95. Impact of corrugated duct and heat storage element on the performance of a low-cost solar air heater under forced air circulation: an experimental study Wincy, W.B., Joseph Sekhar, S., Murugan, P.C. Environmental Science and Pollution Research, 2024
- 96. Effect of submicron pore sized waste coffee emesis biochar on glass–epoxy composite thermal interface material Venkatesh, B., Gandhimathi, G., Nagabhooshanam, N., ...Vijay, K.M., SOUDAGAR, M.E.M. Biomass Conversion and Biorefinery, 2024
- 97. RIS enabled NOMA for Resource Allocation in Beyond 5G Networks Namaskaram, K., Rajagopal, P., Rathinam, B.M., ...Cheguri, S., Nisha, M.F. Journal of Engineering Science and Technology Review, 2024
- 98. Modeling and simulation of a Renzoku puzzle pattern-based PV array configuration for a partially shaded PV system Aljafari, B., Balachandran, P.K., Samithas, D., Thanikanti, S.B., Nwulu, N.I. Frontiers in Energy Research, 2024
- 99. Optimization and synthesis process of biodiesel production from coconut oil using central composite rotatable design of response surface methodology Kannan, R., Sathiyamoorthi,

R., Sampath, S., ...Dillikannan, D., Jayabal, R. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024.

- 100. A Comprehensive Review and Analysis of the Allocation of Electric Vehicle Charging Stations in Distribution Networks Yuvaraj, T., Devabalaji, K.R., Kumar, J.A., Thanikanti, S.B., Nwulu, N.I. IEEE Access, 2024
- 101. Intensification of bio-synthesis of zirconium oxide (ZrO2) nanoparticles derived from novel Crescentia Cujete fruits: Effects on diesel engine characteristics powered by waste engine oil methyl ester-diesel blend Kistan, A., Sathiyamoorthi, R. Chemical Engineering and Processing - Process Intensification, 2024
- 102. Short-term wind power prediction using deep learning approaches Alex Luke, K.A., Preetha Evangeline, D., AnandhaKumar, P. Advances in Computers, 2024
- 103. Assessing biodiesel feedstocks and production techniques: a comprehensive review Govindhan, P. Petroleum Science and Technology, 2024
- 104. Solar Energy Measurement and Monitoring Model by Using Internet of Things Ramakrishnan, R., Gor, M.M.S., Meenakshi, R., ...Ouladsmane, M.A., Kalam, M.A. Electric Power Components and Systems, 2024
- 105. Optimization of Image Processing Based MPPT Algorithm Using FSO Algorithm Gayathri Monicka, S., Manimegalai, D., Karthikeyan, M., Rethinam, G. Electric Power Components and Systems, 2024
- 106. Forecasting the PV Power Utilizing a Combined Convolutional Neural Network and Long Short-Term Memory Model Ramakrishnan, R., Mewada, B., Meenakshi, R., ...Mohammad Wabaidur, S.M., Iqbal, A. Electric Power Components and Systems, 2024

SDG 8 – Decent Work and Economic Growth

- 1. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- 2. A relation network for plant disease detection based on fewshot learning Hemalatha, S., Jayachandran, J.J.B. IAES International Journal of Artificial Intelligence, 2024

- 3. A Multitask Learning-Based Vision Transformer for Plant Disease Localization and Classification Hemalatha, S., Jayachandran, J.J.B. International Journal of Computational Intelligence Systems, 2024
- Comparative study on productivity of double slope solar still using different wick and energy storage materials Anburaj, P., Kathiresan, M., Vijayakumar, R., Vignesh Kumar, R. Solar Energy, 2024
- 5. Smart health care waste segregation and safe disposal Bommi, R.M., Rajeev, S.V.S., Navya, S., Teja, V.S., Supriya, U. Mathematics and Computer Science, 2024
- 6. Explainable AI-based Model Interpretability for Tomato Leaf Disease Identification Gowri, P., Aathilakshmi, S., Sivapriya, G., ...Ashika, K., Aswin, P. 2024 15th International Conference on Computing Communication and Networking Technologies, ICCCNT 2024
- 7. Assessing the efficacy of artificial intelligence based city-scale blue green infrastructure mapping using Google Earth Engine in the Bangkok metropolitan region Hasan, M.M., Pramanik, M.K., Alam, I., ...Avtar, R., Zhran, M. Journal of Urban Management, 2024
- 8. AI-Driven Indoor Farming: An Algorithmic Approach to Sustainable Agriculture Sankaradass, V., Saranya, K. Communications in Computer and Information Science, 2024
- Green Leaf Disease Detection Using Raspberry Pi and Random Forest Machine Learning Algorithm: An Automated Approach for Precision Agriculture Ranganathan, C.S., Basha, A.A.J., Vijayalakshmi, A., ...Sujatha, S., Sasikala, C. 2024 10th International Conference on Smart Computing and Communication, ICSCC 2024
- Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024
- Pyrolysis of Biomass Using Renewable Energy as A Heating Medium : A Review Mishra, S.S., Shanmugapriya, V. Proceedings – 2024 3rd International Conference on Computational Modelling, Simulation and Optimization, ICCMSO 2024
- Hybrid Fuzzy Decision-Making Model Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024

- Neural Network-Based Automated Soil Salinity Mapping and Remediation Using Wireless Sensor and Cloud Computing Shadaksharappa, B.K., Sriram, S.V., Swathy, R., ...Meenakshi, R., Suganya, J. Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024
- SVM-based Predictive Modeling of Drowsiness in Hospital Staff for Occupational Safety Solution via IoT Infrastructure Ganesh, B.J., Vijayan, P., Vaidehi, V., ...Meenakshi, R., Rajmohan, M. 2024 2nd International Conference on Computer, Communication and Control, IC4 2024.

SDG 9 – Industry Innovation and Infrastructure

- 1. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- 2. An overview of recent trends and future prospects of sustainable natural fiber-reinforced polymeric composites for tribological applications Soni, A., Das, P.K., Gupta, S.K., ...kamyab, H.R., Yusuf, M. Industrial Crops and Products, 2024
- 3. Fused deposition modeling process parameter optimization on the development of graphene enhanced polyethylene terephthalate glycol Subramani, R., Jayalakshmi, M., Rusho, M.A., ...Yishak, S., Thirugnanasambandam, A. Scientific Reports, 2024
- 4. Unveiling the future: A simulation and analysis of hydrogen production using 1kW electrolyzer with MATLAB approach Yaw, C.T., Paw, J.K.S., Kadirgama, K.A., ...Samylingam, L., Kok, C. Results in Engineering, 2024
- 5. Alumina-enriched sunflower bio-oil in machining of Hastelloy C-276: a fuzzy Mamdani model-aided sustainable manufacturing paradigm Sen, B., Bhowmik, A., Singh, G., ...Zairov, R.R., Ammarullah, M.I. Scientific Reports, 2024
- 6. MIWO based MPPT of PV system for induction motor driven water pumping system Anbuchandran, S., Silas Stephen, D., Arumuga Babu, M., Ananthan, B. e-Prime -Advances in Electrical Engineering, Electronics and Energy, 2024
- Pothole detection model for road safety using computer vision and machine learning Bidve, V.S., Kakade, K.S., Bhole, R.H., ...Borde, S.P., Kediya, S.O. IAES International Journal of Artificial Intelligence, 2024

- 8. Quantumness of electron transport in quantum dot devices through Leggett–Garg inequalities: A non-equilibrium Green's function approach Meitei, T.Y., Krithivasan, S., Sen, A., Ali, M.M. Physica A: Statistical Mechanics and its Applications, 2024
- Development of sustainable aluminum alloy-tungsten carbide hybrid composites using industrial waste - An experimental analysis Ramasamy, N., Prakash, M., B, P., ...Magesh, R., Thirugnanasambandam, A. Sustainable Materials and Technologies, 2024
- 10. A comprehensive experimental study of eco-friendly hybrid polymer composites using pistachio shell powder and Aquilaria agallocha Roxb Yesuraj, K., Sathiyamoorthi, R., Devarajan, Y., Dinesh Babu, M., Kaliappan, N. Scientific Reports, 2024
- Optimizing additive manufacturing parameters for graphene-reinforced PETG impeller production: A fuzzy AHP-TOPSIS approach Subramani, R., Praveenkumar, V., Rusho, M.A., Yishak, S. Results in Engineering, 2024
- 12. Biomedical applications of terbium oxide nanoparticles by Couroupita guianensis aubl leaves extract: A greener approach Pandi, P., Krishnan, P., Sathish, S., Sudhahar, S. Nano-Structures and Nano-Objects, 2024
- A machine learning approach for predicting flexural strength of 3D printed hexagon latticecored sandwich structures Sivakumar, N.K., Kaaviya, J., Palaniyappan, S., ...Saravanan, P., Hashem, M.I. Materials Today Communications, 2024
- Firefly algorithm based WSN-IoT security enhancement with machine learning for intrusion detection Karthikeyan, M., Manimegalai, D., Karthikeyan, R.R. Scientific Reports, 2024
- 15. Mechanical performance and microscopic characterization of additively manufactured functionally graded material (WPC/Ceramic-PLA) via fused deposition modelling Subramaniyan, M.K., Veeman, D., Gurusamy John Kennedy, S., Panda, B.N., Yang, C. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 16. Experimental investigation of machining parameters of EDM process for machining Ti alloy Arumugam, P., Ramarathinam, R.P., Prasanna Venkatesh, R.V., ...Lakshmanan, S., Ganapathy, V. AIP Conference Proceedings, 2024

- Optimizing noise reduction through redesigned three-blade horizontal axis wind turbine Palanivel, A., Vijayan, R., Lakshmanan, S., ...Ramarathinam, R.P., Prasanna Venkatesh, R.V. AIP Conference Proceedings, 2024
- Tailored microstructure control in Additive Manufacturing: Constant and varying energy density approach for nickel 625 superalloy Subramani, R., Murali, A.P., Praveenkumar, V. Materials Letters, 2024
- An innovative multilayered material fabricated through additive manufacturing for structural applications: Method and mechanical properties Veeman, D., Subramaniyan, M.K., Guo, L., Elumalai, V., Browne, M.A. International Polymer Processing, 2024
- 20. Characterization of polyester composite developed using silane-treated rubber seed cellulose toughened acrylonitrile butadiene styrene honey comb core and sunn hemp fiber Govindasamy, M., Mageswari, M., Kakaravada, I., Rao, P.K.V. Polymer Bulletin, 2024
- 21. Combustion enhancement and emission reduction in RCCI engine using green synthesized CuO nanoparticles with Cymbopogon martinii methyl ester and phytol blends Sathiyamoorthi, R., Dinesh Babu, M., Devarajan, Y. Industrial Crops and Products, 2024
- 22. Enhanced tribological performance of transesterified corn oil biodiesel blends with CuO and TiO2 nanoparticles: Experimental analysis on wear and friction reduction using environment friendly lubricants Surakasi, R., Subramani, R., Praveenkumar, V., ...Singh Bisht, Y.S., Kumar, A. International Journal of Chemical Reactor Engineering, 2024
- 23. Electrical discharge machining of super alloy incoloy 925: a study based on box behnken design and response surface methodology Chaurasia, S., Dutta, H., Singh, S., Debnath, K., Bhowmik, A. Physica Scripta, 2024
- 24. Load bearing investigations on lightweight rubber seed husk cellulose–ABS 3D-printed core and sunn hemp fiber-polyester composite skin building material Govindasamy, M., Mohan Gift, M.D., Kakaravada, I., Raja, V.L. Macromolecular Research, 2024
- 25. Predictive modeling of MRR, TWR, and SR in spark-EDM of Al-4.5-SiC using ANN and GEP Debnath, S., Sen, B., Patil, N., ...Johnson Santhosh, A., Bhowmik, A. AIP Advances, 2024
- 26. Additively manufactured carbon fiber reinforced-polyamide component: a study based on statistical modeling and regression analysis Veeman, D., Dutta, H., Vellaisamy, M. Engineering Research Express, 2024

- 27. Selection of sustainable construction material from recycled waste plastics by q-rung orthopair fuzzy SWARA-MABAC approach Soni, A., Chakraborty, S., Das, P.K., Saha, A.K. Chemosphere, 2024
- Development of a sustainable polymer composite: enhancing properties of waste plastic with ground tire rubber reinforcement Dasgupta, A., Sen, B., Dutta, P. Physica Scripta, 2024
- 29. Fabrication of stainless steel 308L wall through wire + arc additive manufacturing: Microstructure and numerical prediction of tensile test Thirugnanasambandam, A., Subramaniyan, M.K., Gobiraman, A., Maharajan, S.G. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2024
- The solution to select the safety gloves in machining and quality assurance Surya, D.P., Kothandaraman, I., Rani, K.G., ...Selvanarayanan, R., Lau, C. AIP Conference Proceedings, 2024
- 31. High throughput for different networks using modified LEACH Dhanagopal, R., Suresh Kumar, R., Vasanth Raj, P.T., ...Premil, S.M., Sudheer, S. AIP Conference Proceedings, 2024
- 32. Prediction of specific cutting energy consumption in eco-benign lubricating environment for biomedical industry applications: Exploring efficacy of GEP, ANN, and RSM models Sen, B., Bhowmik, A., Prakash, C., Ammarullah, M.I. AIP Advances, 2024
- 33. Characterization of Functionally Graded Material (Stainless Steel 347/308L) Fabricated through Wire and Arc Additive Manufacturing: Microstructure and Mechanical Perspectives Thirugnanasambandam, A., Subramaniyan, M.K., Hariharan, M. Steel Research International, 2024
- 34. Characterisation of additively manufactured titanium wall: Mechanical and microstructural aspects Veeman, D., Subramaniyan, M.K., Elumalai, V., ...Guo, L., Nallathambhi, S.S. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 35. Aerospace and automotive marvels applications of friction stir processed hybrid composites Ashokkumar, M., Vignesh, P., Thirugnanasambandam, A. Utilizing Friction Stir Techniques for Composite Hybridization, 2024

- 36. A novel investigation on rotary tool-assisted electrical discharge-micro drilling of carbonaramid hybrid composite Dutta, H., Chaurasia, S., Thirugnanasambandam, A., Muralidharan, S., Debnath, K. Materials Letters, 2024
- 37. Minimum quantity blended bio-lubricants for sustainable machining of superalloy: An MCDM model-based study Sen, B., Kothapalli, S.K., Kumar, R., ...Singh, G., Johnson Santhosh, A. AIP Advances, 2024
- 38. Development of novel intrusion detection in Internet of Things using improved dart game optimizer-derived optimal cascaded ensemble learning Shali, A., Chinnasamy, A., Selvakumari, P.K. Transactions on Emerging Telecommunications Technologies, 2024
- 39. Assessing the exergy sustainability of a paddy drying system driven by a biomass gasifier Wincy, W.B. Environmental Science and Pollution Research, 2024
- 40. Metallurgical and mechanical properties of marine grade AA5356 using wire arc additive manufacturing MuthuKumaran, A., Jeyakumar, S., Jayakumar, K.S. Materials Research Express, 2024
- Investigation on Microstructure, Mechanical Properties, and Fracture Morphology of Al7075/TiB2 Composites Bhowmik, A., Bhattacharjee, B., Venkatesh, V.S.S., ...Syed, A.S., Wong, L.S. JOM, 2024
- 42. A Novel Material for Sustainable Environment: Processing, Additive Manufacturing, and Characterization Veeman, D., Subramaniyan, M.K., Surendhar, G.J., Alruqi, M. Journal of Materials Engineering and Performance, 2024
- 43. Sustainable approach to the revalorization of crab shell waste in polymeric filament extrusion for 3D printing applications Palaniyappan, S., Sivakumar, N.K., Sekar, V. Biomass Conversion and Biorefinery, 2024
- 44. An assessment of additive manufacturing technology for automotive and aerospace applications Madheswaran, D.K., Ganesamoorthy, R., Selvi, S.T., ...Suresh, G., Chandramohan, P. AIP Conference Proceedings, 2024
- 45. Investigations on microstructure, crystallographic texture evolution, residual stress and mechanical properties of additive manufactured nickel-based superalloy for aerospace applications: role of industrial ageing heat treatment Praveenkumar, V., Subramani, R., Rusho, M.A., Balaji, G.L. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2024

- 46. Biopolymer composites with waste chicken feather fillers: A review Dutta, H., Bora, D., Chetia, P., ...Rawal, R.K., J, J. Renewable and Sustainable Energy Reviews, 2024
- 47. Optimizing smart microgrid performance: Integrating solar generation and static VAR compensator for EV charging impact, emphasizing SCOPE index Suresh, M.P., Yuvaraj, T., Thanikanti, S.B., Nwulu, N.I. Energy Reports, 2024
- Selection and Optimization of Carbon-Reinforced Polyether Ether Ketone Process Parameters in 3D Printing —A Rotating Component Application Subramani, R., Praveenkumar, V., Rusho, M.A., ...Shankar, K.V., Thirugnanasambandam, A. Polymers, 2024
- 49. Tribological impact on borosilicate glass powder reinforced Al-MMC by variation of sliding velocity and the study of its machinability Bhowmik, A., Bhattacharjee, B., Thirugnanasambandam, A., ...Syed, A.S., Wong, L.S. Physica Scripta, 2024
- 50. Wire-Fed Layer Manufacturing of Grade-9 Titanium: An Investigation on Tailored Behavior of Wall Veeman, D., Subramaniyan, M.K., Elumalai, V., Thanigainathan, S. Journal of Materials Engineering and Performance, 2024
- 51. Performance evaluation of structurally graded material fabricated through additive manufacturing | Leistungsbewertung additiv gefertigter strukturell graduierter Werkstoffe Vellaisamy, M., Gurusamy, P., Kannan, S., Subramaniyan, M.K. Materialwissenschaft und Werkstofftechnik, 2024
- 52. Some studies on functional behavior of novel multi-layered material for integrated structural application Gurusamy, P., Vellaisamy, M., Kumar Muthu Kumar, T., Agnelo Browne, M., Mohan Kumar, S. Journal of Industrial and Engineering Chemistry, 2024
- 53. Deep-bed drying kinetics and thermodynamic parameters of high-moisture parboiled paddy (ASD-16) in a reversible airflow fixed bed dryer Wincy, W.B., Joseph Sekhar, S., Murugan, P.C. Journal of Food Process Engineering, 2024
- 54. Performance evaluation of silane-treated Cissus quadrangularis fiber and waste Limonia acidissima hull powder on mechanical, fatigue, and water absorption properties of epoxy resin composite Jayabalakrishnan, D., Balajikrishnabharathi, A., Bhaskar, K. Biomass Conversion and Biorefinery, 2024
- 55. Cleaner production of geopolymer bricks using Solar-LPG hybrid dryer Partheeban, P., Vishnupriyan, J., Manimuthu, S., Chella Gifta, C. Journal of Cleaner Production, 2024

- 56. Analysis of Influence on Machining Characteristics of Nimonic 80 Jashwanth, S., Rajaparthiban, J., Ganesamoorthy, R., Balaji, N., Padmavathy, K.R. SAE Technical Papers, 2024
- 57. Intensification of oil yield from Kokum seeds: An energy-efficient extraction using ultrasonication technique S, A., Baskar, S., G, S. Chemical Engineering and Processing Process Intensification, 2024
- 58. Sustainable machining of superalloy in minimum quantity lubrication environment: leveraging GEP-PSO hybrid optimization algorithm Sen, B., Debnath, S., Bhowmik, A. International Journal of Advanced Manufacturing Technology, 2024
- 59. Influence of printing-based factors on the mechanical properties of hexagonal latticestructured 3D printed novel walnut shell/polylactic acid composite Mathiazhagan, N., Sivakumar, N.K., Palaniyappan, S., Rahaman, M. Journal of Thermoplastic Composite Materials, 2024
- 60. Crushing behavior optimization of octagonal lattice-structured thin-walled 3D printed carbon fiber reinforced PETG (CF/PETG) composite tubes under axial loading Sivakumar, N.K., Palaniyappan, S., Kumar, V., ...Alodhayb, A.N., Madhan Kumar, A. Polymer Composites, 2024
- 61. Fracture toughness of innovative material fabricated through additive manufacturing: Experimental and numerical prediction Veeman, D., Agnelo Browne, M., Kannan, S., ...Jeevaraj, K., Subramaniyan, M.K. Mechanics of Advanced Materials and Structures, 2024
- 62. Smart Tracking and Surveillance Systems for Automated Delivery Robots in Food and E-Commerce Systems Vimala Ithayan, J., Ranganathan, C.S., Vinola, C., ...Meenakshi, R., Muthulekshmi, M. 2nd International Conference on Self Sustainable Artificial Intelligence Systems, ICSSAS 2024
- 63. Evaluation on Tribological Performance of Ti-6AI-4V Alloy Modified Using Powder Composite Electrode-Assisted Electrical Discharge Coating Elaiyarasan, U., Paramasivam, B., Satheeshkumar, V., Senthilkumar, C., Thirugnanasambandam, A. JOM, 2024

- 64. Comparative Analysis of NSGA-II and TLBO for Optimizing Machining Parameters of Inconel 690: A Sustainable Manufacturing Paradigm Sen, B., Kumar, R., Kanabar, B.K., ...Kumar, A.V., Bhowmik, A. Journal of Materials Engineering and Performance, 2024
- 65. Optimization of heat-treated silicon nitride additive parameters on flawless casting of AA7075 alloys: an alternative for conventional green sand Edwin Paul, N.E., Jayabalakrishnan, D., Jayaseelan, V., Saravanan, K.G. Journal of the Australian Ceramic Society, 2024
- 66. SMART PAVEMENT ENGINEERING INTEGRATION OF IOT AND SENSOR TECHNOLOGIES FOR ENHANCED PERFORMANCE MONITORING AND MAINTENANCE Sivakrishna, K., Yanamadni, V.R., Sundar, R.S., ...Parasa, G., Nagabhooshanam, N. Journal of Environmental Protection and Ecology, 2024
- 67. Innovative surface engineering of sustainable polymers: Toward green and highperformance materials Subramani, R., Rusho, M.A., Sekhar, K.C., ...Nagappan, S., Nagabhooshanam, Applied Chemical Engineering, 2024
- 68. Surface functionalization of bio-based polymers in FDM: A pathway to enhanced material performance Subramani, R., Rusho, M.A., Singh, C., ...Ahmed Mustafa, M.A., Kumar, A.P. Applied Chemical Engineering, 2024
- 69. Assessing the efficacy of artificial intelligence based city-scale blue green infrastructure mapping using Google Earth Engine in the Bangkok metropolitan region Hasan, M.M., Pramanik, M.K., Alam, I., ...Avtar, R., Zhran, M. Journal of Urban Management, 2024
- 70. Surface metamorphosis techniques for sustainable polymers: Optimizing material performance and environmental impact Subramani, R., Rusho, M.A., Surakasi, R., ...Jeyanthi, S., Selvaraj, V.K. Applied Chemical Engineering, 2024
- 71. Detection of layer height-based defects in additively manufactured part using deep learning algorithm Castro, P., Gurusamy, P., Nandagopal, S., Subramaniyan, M.K. International Journal of Advanced Manufacturing Technology, 2024
- 72. A Novel High Gain Wideband MIMO Antenna Material for 5G Wireless Networks Amina Begum, M., Krishnamoorthy, R. Springer Proceedings in Materials, 2024
- 73. Energy-efficient FDM printing of sustainable polymers: Optimization strategies for material and process performance Subramani, R., Rusho, M.A., Karthikeyan, S., ...Neelamegam, D., Sathish, T. Applied Chemical Engineering, 2024

- 74. Integration of nanomaterials in FDM for enhanced surface properties: Optimized manufacturing approaches Subramani, R., Rusho, M.A., Babar, Y.V., ...Panneerselvam, B., Jagadheeswari, A.S. Applied Chemical Engineering, 2024
- 75. Innovative Approaches in Advanced VLSI Design for High-Performance Computing Applications Sathish, K., Sathya, A., Pattunnarajam, P., ...Lakshmisridevi, S., Pushpa Priya, C. 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024
- 76. Real-Time Monitoring of Electrical Faults in Industrial Machinery Using IoT and Random Forest Regression Kumar, B.V., Sivalakshmi, P., Muthumarilakshmi, S., ...Vijayalakshmi, K., Srinivasan, C. 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024
- 77. Analysis and Optimization of Thermoplastic Polyurethane Infill Patterns for Additive Manufacturing in Pipeline Applications Benjamin Lazarus, S., Subramani, R., Shanmugam, K., Yishak, S. Advances in Polymer Technology, 2024
- 78. Fabrication of Bimetallic Structure (SS 316L/SS 308L) via Wire + Arc Additive Manufacturing: A Detailed Characterization of Interface Thirugnanasambandam, A., Subramaniyan, M.K., Elumalai, V. Journal of Materials Engineering and Performance, 2024
- 79. An investigation on surface integrity and microstructure behaviour of AISI 304 stainless steel machined by die sinking EDM Sivakumar, J., Lakshmipathy, J., Elaiyarasan, U. Metallurgical Research and Technology, 2024
- 80. Microstructure and Mechanical Properties of Bimetallic Structure Fabricated through Wire Plus Arc Additive Manufacturing Murugesan Devarajan, V., Veeman, D., Subramaniyan, M.K., Kannan, S. Steel Research International, 2024
- 81. Evaluation of nano fluids in minimum quantity lubrication hard machininof Monel K500 material for high heat-resistant application Devendiran, M., Kulandaivel, A., Mohanavel, V., Kannan, S. Revista Materia, 2024
- 82. Wire-arc-additively manufactured Bi metallic structure: Mechanical properties and microstructural characterization Subramaniyan, M.K., Thirugnanasambandam, A. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2024

- 83. Influence of optimization techniques on machine learning algorithms: compressive behaviour of additively manufactured poly lactic acid (PLA) for structural applications Veeman, D., Vellaisamy, M., Ponnusamy, P.C., ...Vijayakumar, M.D., Guo, L. Progress in Additive Manufacturing, 2024
- 84. Optimization of Kerf Width in WEDM of Sandwich Woven CFRP-An Ensemble Machine Learning Based Approach Saha, S., Thirugnanasambandam, A., Debnath, K., Chaurasia, S. Arabian Journal for Science and Engineering, 2024
- 85. Experimental Study on Parametric Effect of Wire Electric Discharge Machining of Titanium Grade 2 Alloy Using Cryogenic Treated Wire Elaiyarasan, U., Nandakumar, C., Thirugnanasambandam, A. Journal of Materials Engineering and Performance, 2024
- 86. The Intensive Model Design using FL for Smart HC System Design Ramakrishnan, R., Verma, A., Kumar, V.S.P., ...Pillai, B.G., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 87. Integration of Fuzzy Model with the IOT Model to Achieve Better Health(Medical) Care Design System Ramakrishnan, R., Kumar, V.S.P., Pillai, B.G., ...Rastogi, S., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 88. Modelling of Fuzzy Logic Based System for the Implementation of Model for Healthcare System with Accurate Prediction Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024
- 89. Machine learning-based approach for predicting the compressive strength of 3D printed hexagon lattice-cored sandwich structures Sivakumar, N.K., Kaaviya, J., Palaniyappan, S., ...Moussa, I.M.I., Ibrahim Hashem, M. Journal of Thermoplastic Composite Materials, 2024
- 90. Optimizing wire-cut EDM parameters through evolutionary algorithm: a study for improving cost efficiency in turbo-machinery manufacturing Sen, B., Dasgupta, A., Bhowmik, A. International Journal on Interactive Design and Manufacturing, 2024
- 91. Advancements in 3D printing materials: A comparative analysis of performance and applications Subramani, R., Ahmed Mustafa, M.A., Ghadir, G.K., ...John Rajan, A., Kumar, A.P. Applied Chemical Engineering, 2024

- 92. Exploring the use of Biodegradable Polymer Materials in Sustainable 3D Printing Subramani, R., Ahmed Mustafa, M.A., Ghadir, G.K., ...John Rajan, A., Kumar, A.P. Applied Chemical Engineering, 2024
- 93. A systematic review on the production of biodiesel using various feedstocks and effective catalysts Govindhan, P., Munusamy, R., Rajasingh, E.C., Mahendradas, D.K. Petroleum Science and Technology, 2024
- 94. Development of 3D printed novel multi-polymer component based on blended filaments of polylactic acid and polyethylene terephthalate glycol Thirugnanasambandam, A., Dutta, H., Gnanasagaran, C.L., Kechagias, J.D. Progress in Additive Manufacturing, 2024
- 95. Enhance Energy Efficiency based Automobile Wheels by using Piezoelectric Energy Harvesting Technology and Sustainable Power Generation Dadi, P.S., Meera, R., Kalimuthu, R., Surendran, R. Proceedings of the 2nd IEEE International Conference on Networking and Communications 2024
- 96. Mechanical and thermal characterization of additively manufactured novel multilayer polymer composite through experiments and finite element simulation Thirugnanasambandam, A., Dutta, H., Puttaiah, H. Mechanics of Advanced Materials and Structures, 2024
- 97. Wire plus arc additive manufacturing of stainless steel wall for predicting parametric influences on strength: Experimentation and finite-element analysis approach Thirugnanasambandam, A., Subramaniyan, M.K., Gobiraman, A., Elumalai, V. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 98. Microstructure and finite element simulation (tensile test) of stainless steel wall produced by wire and arc additive manufacturing Thirugnanasambandam, A., Subramaniyan, M.K., Gobiraman, A. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 99. Extrusion and characterization of eggshell-based composite filaments for sustainable development in additive manufacturing Ravikumar, K., Gurusamy, P., Subramaniyan, M.K. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 100. Measurement of additively manufactured part dimensions using OpenCV for process monitoring Castro, P., Gurusamy, P., Thanigainathan, S., ...Krishnan, R.A.,

Subramaniyan, M.K. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024

- 101. Optimizing processing parameters in electrical discharge milling of CFRP using metaheuristics Dutta, H., Saha, S., Debnath, K., ...Roy Choudhury, M., Bhowmik, A. Materials and Manufacturing Processes, 2024
- 102. Preparation and performance evaluation of 3D printed Poly Lactic Acid composites reinforced with silane functionalized walnut shell for food packaging applications Palaniyappan, S., Sivakumar, N.K., Bodaghi, M., Rahaman, M., Saravanan, P. Food Packaging and Shelf Life, 2024
- 103. Defect monitoring in additive manufacturing through OpenCV-based remote video access Gurusamy, P., Ponnuswamy, P.C., Browne, M.A., Vijayalakshmi, R.A.K., Subramaniyan, M.K. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2024
- 104. Reshaping agriculture using intelligent edge computing Preetha Evangeline, D., Chelliah, P.R., AnandhaKumar, P. Advances in Computers, 2024
- 105. Evaluation of metallurgical and mechanical characteristics of the ferritic stainless steel AISI 430 produced by GTAW-based WAAM Muthu, S.M., Veeman, D., Vijayakumar, A., ...Arvind, M., Gobinath, E. Materials Letters, 2024
- 106. Study of Microstructural, Machining and Tribological Behaviour of AA-6061/SiC MMC Fabricated Through the Squeeze Casting Method and Optimized the Machining Parameters by Using Standard Deviation-PROMETHEE Technique Gurusamy, P., Bhattacharjee, B., Dutta, H., Bhowmik, A. Silicon, 2024
- 107. Articulating the power of reasoning and gathering data for information security and justice Preetha Evangeline, D., AnandhaKumar, P. Advances in Computers, 2024

SDG 10 – Reduced Inequalities

- 1. Precision poverty evaluation: Leveraging generalized linear models and XG boost algorithms Gopal, J.N., Muthukaruppasamy, S., Thomas, A.S., Arul, D.A.I., Jose Anand, A. Smart Technologies for Sustainable Development Goals: No Poverty, 2024
- 2. An Effective Anti-Money Laundering System Using Block Chain Technology Divya, B.S., Thara, P., Kavitha, S., ... Preethi Sri, R., Dhanalakshmi, D. International Conference on

Smart Systems for Electrical, Electronics, Communication and Computer Engineering, ICSSEEC 2024

 The Development of Inference in Healthcare System using FEFL System Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024

SDG 11 – Sustainable Cities and Communities

- Pothole detection model for road safety using computer vision and machine learning Bidve, V.S., Kakade, K.S., Bhole, R.H., ...Borde, S.P., Kediya, S.O. IAES International Journal of Artificial Intelligence,2024
- Sustainable development of agro bio-mass waste based AA-Tungsten carbide hybrid reinforced composites: A comprehensive performance investigation Bose, P., Thirugnanasambandam, A., Pullela, P.K., ...Gupta, M., Alarifi, A.S. Ceramics International,2024
- 3. Evaluating heat health risk in Indian cities: Geospatial and socio-ecological analysis Mandvikar, K., Kumar, N.J., Supe, H., ...Pandey, S.K., Avtar, R. World Development Sustainability, 2024
- Auto digitization of aerial images to map generation from UAV feed Raju, J.K., Yadav, K.P., Sreedevi, B., ...Jeyapriya, J., Murugan, S. Indonesian Journal of Electrical Engineering and Computer Science, 2024
- 5. Smart health care waste segregation and safe disposal Bommi, R.M., Rajeev, S.V.S., Navya, S., Teja, V.S., Supriya, U. Mathematics and Computer Science,2024
- 6. Optimizing virtual power plant allocation for enhanced resilience in smart microgrids under severe fault conditions using the hunting prey optimization algorithm Yuvaraj, T., Krishnamoorthy, R., Arun, S.R., Thanikanti, S.B., Nwulu, N.I. Energy Reports,2024
- Mechanical, wear, and dielectric properties of opuntia cladode fiber and pearl millet biochar-reinforced epoxy composite Jayabalakrishnan, D., Jayaseelan, V., Patil, P.P., B., R., Bhaskar, K. Biomass Conversion and Biorefinery,2024
- Optimizing Distribution System Resilience in Extreme Weather Using Prosumer-Centric Microgrids with Integrated Distributed Energy Resources and Battery Electric Vehicles Thirumalai, M., Hariharan, R., Yuvaraj, T., Prabaharan, N. Sustainability (Switzerland) ,2024

- 9. Assessing the efficacy of artificial intelligence based city-scale blue green infrastructure mapping using Google Earth Engine in the Bangkok metropolitan region Hasan, M.M., Pramanik, M.K., Alam, I., ...Avtar, R., Zhran, M. Journal of Urban Management,2024
- 10. Enhancing Remote Sensing Image Classification using Arithmetic Optimization Algorithm with Deep Learning Approach Shanthi, R., Balasubramaniam, D., Venkatesh, R., ...Manimaran, V., Basha, S.H. nd IEEE International Conference on Advances in Information Technology, ICAIT - Proceedings,2024
- 11. A Novel High Gain Wideband MIMO Antenna Material for G Wireless Networks Amina Begum, M., Krishnamoorthy, R. Springer Proceedings in Materials,2024
- 12. Innovating Trajectory Similarity Measurement with Distributional Techniques for Anomaly Detection Applications Ramakrishnan, R., Kumar, V.S.P., Pillai, B.G., ...Rastogi, S., Meenakshi, R. nd IEEE International Conference on Data Science and Network Security, ICDSNS ,2024
- 13. Leveraging IoT for Real-Time Air Quality Sensing and Optimization in Vehicle Interiors using Gradient Boosting Algorithm Muthukumaran, D., Ranganathan, C.S., Sivapriya, N., ...Sankar, T.C., Sasikala, P. ICEPE - th International Conference on Energy, Power and Environment: Towards Indigenous Energy Utilization,2024
- Enhancing Environmental Safety: Design and Development of IoT based Air Quality Monitoring System Janaki, K., Eapen, M., Meera, M.M., ...Arun, S.R., Krishnamoorthy, R. Proceedings - 2024 5th International Conference on Image Processing and Capsule Networks, ICIPCN ,2024
- 15. Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024
- 16. Cloud-Enabled Neural Networks for Intelligent Vehicle Emissions Tracking and Analysis Anusha, N., Gnana Jeslin, J., Srividhya, V., ...Meenakshi, R., Srinivasan, C. International Conference on Automation and Computation, AUTOCOM 2024, 2024
- Extending the FSM Model for Critical Decision-Making and Safety Control in Autonomous Vehicles Vairavan, T., Dhurgadevi, M., Prithiviraj, A., Jackulin, T., Baskaran, K. International Journal of Intelligent Systems and Applications in Engineering,2024

- Why is implementing computational intelligence for social good so challenging? Principles and its application Preetha Evangeline, D., AnandhaKumar, P. Advances in Computers,2024
- 19. Assessing biodiesel feedstocks and production techniques: a comprehensive review Govindhan, P. Petroleum Science and Technology,2024

SDG 12 – Responsible Consumption and Production

- 1. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- 2. An overview of recent trends and future prospects of sustainable natural fiber-reinforced polymeric composites for tribological applications Soni, A., Das, P.K., Gupta, S.K., ...kamyab, H.R., Yusuf, M. Industrial Crops and Products,2024
- 3. DC microgrid for EV charging station with EV control by using STSM controllers Anbuchandran, S., Arumuga Babu, M., Silas Stephen, D., Thinakaran, M. Engineering Research Express,2024
- 4. Alumina-enriched sunflower bio-oil in machining of Hastelloy C-: a fuzzy Mamdani model-aided sustainable manufacturing paradigm Sen, B., Bhowmik, A., Singh, G., ...Zairov, R.R., Ammarullah, M.I. Scientific Reports,2024
- 5. A relation network for plant disease detection based on fewshot learning Hemalatha, S., Jayachandran, J.J.B. IAES International Journal of Artificial Intelligence,2024
- Development of sustainable aluminum alloy-tungsten carbide hybrid composites using industrial waste - An experimental analysis Ramasamy, N., Prakash, M., B, P., ...Magesh, R., Thirugnanasambandam, A. Sustainable Materials and Technologies, 2024
- Sustainable development of agro bio-mass waste based AA-Tungsten carbide hybrid reinforced composites: A comprehensive performance investigation Bose, P., Thirugnanasambandam, A., Pullela, P.K., ...Gupta, M., Alarifi, A.S. Ceramics International,2024
- 8. Revolutionizing UAV: Experimental Evaluation of IoT-Enabled Unmanned Aerial VehicleBased Agricultural Field Monitoring Using Remote Sensing Strategy Gireesh

Babu, C.N., Abbas, S.H., Annamalai, L., ...Yadav, T.N., Aarthi, R. Remote Sensing in Earth Systems Sciences, 2024

- A Multitask Learning-Based Vision Transformer for Plant Disease Localization and Classification Hemalatha, S., Jayachandran, J.J.B. International Journal of Computational Intelligence Systems, 2024
- Synthesis of cellulose from Amaranthus viridis root waste and development of pineapple fiber-vinyl ester composites: a step towards greener production and characterization Padmanaban, M.R.A., Sambath, S., Jayabalakrishnan, D., Suthan, R. Biomass Conversion and Biorefinery,2024
- Tree Species Classification by Multi-Season Collected UAV Imagery in a Mixed CoolTemperate Mountain Forest Avtar, R., Chen, X., Fu, J., ...Louw, A.S., Tatsuro, N. Remote Sensing,2024
- 12. Combustion enhancement and emission reduction in RCCI engine using green synthesized CuO nanoparticles with Cymbopogon martinii methyl ester and phytol blends Sathiyamoorthi, R., Dinesh Babu, M., Devarajan, Y. Industrial Crops and Products,2024
- 13. Selection of sustainable construction material from recycled waste plastics by q-rung orthopair fuzzy SWARA-MABAC approach Soni, A., Chakraborty, S., Das, P.K., Saha, A.K. Chemosphere,2024
- 14. Development of a sustainable polymer composite: enhancing properties of waste plastic with ground tire rubber reinforcement Dasgupta, A., Sen, B., Dutta, P. Physica Scripta,2024
- 15. Computational analysis on novel half Heusler alloys XPdSi(X=Ti,Zr,Hf) for waste heat recycling process Shobana Priyanka, D., M, S., J.b, S., K, F. Materials Science in Semiconductor Processing,2024
- 16. Minimum quantity blended bio-lubricants for sustainable machining of superalloy: An MCDM model-based study Sen, B., Kothapalli, S.K., Kumar, R., ...Singh, G., Johnson Santhosh, A. AIP Advances,2024
- 17. Smart health care waste segregation and safe disposal Bommi, R.M., Rajeev, S.V.S., Navya, S., Teja, V.S., Supriya, U. Mathematics and Computer Science,2024

- 18. An assessment of additive manufacturing technology for automotive and aerospace applications Madheswaran, D.K., Ganesamoorthy, R., Selvi, S.T., ...Suresh, G., Chandramohan, P. AIP Conference Proceedings,2024
- 19. Biopolymer composites with waste chicken feather fillers: A review Dutta, H., Bora, D., Chetia, P., ...Rawal, R.K., J, J. Renewable and Sustainable Energy Reviews,2024
- Mechanical, wear, and dielectric properties of opuntia cladode fiber and pearl millet biochar-reinforced epoxy composite Jayabalakrishnan, D., Jayaseelan, V., Patil, P.P., B., R., Bhaskar, K. Biomass Conversion and Biorefinery,2024
- 21. Performance evaluation of silane-treated Cissus quadrangularis fiber and waste Limonia acidissima hull powder on mechanical, fatigue, and water absorption properties of epoxy resin composite Jayabalakrishnan, D., Balajikrishnabharathi, A., Bhaskar, K. Biomass Conversion and Biorefinery,2024
- 22. Cleaner production of geopolymer bricks using Solar-LPG hybrid dryer Partheeban, P., Vishnupriyan, J., Manimuthu, S., Chella Gifta, C. Journal of Cleaner Production,2024
- 23. Sustainable machining of superalloy in minimum quantity lubrication environment: leveraging GEP-PSO hybrid optimization algorithm Sen, B., Debnath, S., Bhowmik, A. International Journal of Advanced Manufacturing Technology,2024
- 24. Comparative Analysis of NSGA-II and TLBO for Optimizing Machining Parameters of Inconel : A Sustainable Manufacturing Paradigm Sen, B., Kumar, R., Kanabar, B.K., ...Kumar, A.V., Bhowmik, A. Journal of Materials Engineering and Performance,2024
- 25. Optimization of heat-treated silicon nitride additive parameters on flawless casting of AA alloys: an alternative for conventional green sand Edwin Paul, N.E., Jayabalakrishnan, D., Jayaseelan, V., Saravanan, K.G. Journal of the Australian Ceramic Society,2024
- 26. Innovative surface engineering of sustainable polymers: Toward green and highperformance materials Subramani, R., Rusho, M.A., Sekhar, K.C., ...Nagappan, S., Nagabhooshanam, Applied Chemical Engineering,2024
- 27. Surface functionalization of bio-based polymers in FDM: A pathway to enhanced material performance Subramani, R., Rusho, M.A., Singh, C., ...Ahmed Mustafa, M.A., Kumar, A.P. Applied Chemical Engineering,2024

- Explainable AI-based Model Interpretability for Tomato Leaf Disease Identification Gowri, P., Aathilakshmi, S., Sivapriya, G., ...Ashika, K., Aswin, P.2024 15th International Conference on Computing Communication and Networking Technologies, ICCCNT 2024.
- 29. AI-Driven Indoor Farming: An Algorithmic Approach to Sustainable Agriculture Sankaradass, V., Saranya, K. Communications in Computer and Information Science, 2024
- 30. Enhancing Remote Sensing Image Classification using Arithmetic Optimization Algorithm with Deep Learning Approach Shanthi, R., Balasubramaniam, D., Venkatesh, R., ...Manimaran, V., Basha, S.H. 2nd IEEE International Conference on Advances in Information Technology, ICAIT 2024 - Proceedings,2024
- 31. A Comparative Study of Gypsum-Based Composites with Waste Recycling for Electrical Properties in Futuristic Applications Kumaresan, S., Jeyanthi, S., Selvaraj, V.K., ...Raju, M.P., Nath, A.K. Sustainable Civil Infrastructures,2024
- 32. Cloud-Based Predictive Modeling System for Radioactive Waste Behavior Using Bayesian Networks Meenakshi, R., Sakthisaravanan, B., Sampoornam, M.M., ...Rajmohan, M., Murugan, S. 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024 - Proceedings,2024
- 33. Hybrid Fuzzy Decision-Making Model Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R.2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024,2024
- 34. Exploring the use of Biodegradable Polymer Materials in Sustainable D Printing Subramani, R., Ahmed Mustafa, M.A., Ghadir, G.K., ...John Rajan, A., Kumar, A.P. Applied Chemical Engineering,2024
- 35. SVM-Guided Dynamic Routing for Post-Harvest Quality Preservation in Smart Warehouses with IoT Umamaheswari, K., Antony Joseph Rajan, D., Ramasamy, J., ...Meenakshi, R., Thamizhamuthu, R.2024 3rd International Conference for Innovation in Technology, INOCON 2024,2024
- 36. Optimization and synthesis process of biodiesel production from coconut oil using central composite rotatable design of response surface methodology Kannan, R., Sathiyamoorthi, R., Sampath, S., ...Dillikannan, D., Jayabal, R. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering,2024

SDG 13 – Climate Action

- 1. Experimental analysis of solar desalination system performance with graphene and graphitic carbon nanopaint-coated solar absorbers Mariraja, R., Harichandran, R., Vijayakumar, R., Nichelson, A. Desalination, 2024
- 2. DC microgrid for EV charging station with EV control by using STSM controllers Anbuchandran, S., Arumuga Babu, M., Silas Stephen, D., Thinakaran, M. Engineering Research Express,2024
- Studies on fuels and engine attributes powered by bio-diesel and bio-oil derived from stone apple seed (Aegle marmelos) for bioenergy Sriariyanun, M., Elaiyarasan, U., R, S., ...Tawai, A., Thirugnanasambandam, A. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy,2024
- Experimental analysis of hemispherical combustion geometry of diesel engine (neem oil) biodiesel with nano additives Sampath, S., Poyyamozhi, N., Sathiyamoorthi, R., Narayana, D.R., Muthukannan, M. Interactions, 2024
- 5. Energy Storage and Conversion Devices: Rechargeable Batteries, Supercapacitors, and Solar Cells Eswaramoorthy, N., Shyma, A.P., Mandal, M., ...Sangaraju, S., Vivek, E. ACS Symposium Series,2024
- 6. A hybrid optimization for distributed generation and D-STATCOM placement in radial distribution network: a multi-faceted evaluation Anbuchandran, S., Arumuga Babu, M., Silas Stephen, D., Thinakaran, M. Engineering Research Express,2024
- Comprehensive energy and enviro-economic performance analysis of a flat plate solar water heater with a modified absorber Prabhu, B., Vengadesan, E., Sampath, S., Thirugnanasambandam, A. Thermal Science and Engineering Progress,2024
- 8. Combustion performance and emission characteristics of aloevera diesel–emulsified fuel in a DI diesel engine Manikandan, R., Raja, T., Vijayaraja, K., ...Govindasamy, K., Ganesamoorthy, R. Environmental Science and Pollution Research,2024
- 9. Cu MOF-biocarbon functional catalysts as adsorbent for oxygen-linked carbon capture via thermo-catalytic pyrolysis: A low-carbon fuel synthesis strategy C, P., B., P., Katiyar, J.K., Sethu, S., Valan Arasu, A. International Journal of Thermofluids, 2024

- Optimizing smart microgrid performance: Integrating solar generation and static VAR compensator for EV charging impact, emphasizing SCOPE index Suresh, M.P., Yuvaraj, T., Thanikanti, S.B., Nwulu, N.I. Energy Reports, 2024
- 11. Effect of heat input on the hazardous gas emissions from galvanized steel during cold metal transfer welding Selvamani, S.T., Selvaganapathy, T., Thanigaivellan, G.K., Vignesh Kumar, G., Ramesh, A. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science,2024
- 12. Biodiesel blends for eco-friendly CRDI-VCR engines: enhancing combustion and engine performance to minimize pollutant emissions Baluchamy, A., Sakthi Rajan, C., Senthamaraikannan, B., Venkatesh, J. Global Nest Journal,2024
- 13. Phytochemical analysis of the methanolic extract from the mangrove species Avicennia marina plant species inhabited in coastal water Govindhan, P. Natural Product Research,2024
- 14. Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024
- Pyrolysis of Biomass Using Renewable Energy as A Heating Medium : A Review Mishra, S.S., Shanmugapriya, V. Proceedings - 2024 3rd International Conference on Computational Modelling, Simulation and Optimization, ICCMSO 2024,2024
- 16. Exploring the use of Biodegradable Polymer Materials in Sustainable D Printing Subramani, R., Ahmed Mustafa, M.A., Ghadir, G.K., ...John Rajan, A., Kumar, A.P. Applied Chemical Engineering,2024
- Impact of corrugated duct and heat storage element on the performance of a low-cost solar air heater under forced air circulation: an experimental study Wincy, W.B., Joseph Sekhar, S., Murugan, P.C. Environmental Science and Pollution Research,2024
- A Comprehensive Review and Analysis of the Allocation of Electric Vehicle Charging Stations in Distribution Networks Yuvaraj, T., Devabalaji, K.R., Kumar, J.A., Thanikanti, S.B., Nwulu, N.I. IEEE Access,2024
- 19. Reshaping agriculture using intelligent edge computing Preetha Evangeline, D., Chelliah, P.R., AnandhaKumar, P. Advances in Computers,2024

SDG 14 – Life below Water

1. Phytochemical analysis of the methanolic extract from the mangrove species Avicennia marina plant species inhabited in coastal water Govindhan, P. Natural Product Research, 2024

SDG 15 – Life on Land

- 1. MIWO based MPPT of PV system for induction motor driven water pumping system Anbuchandran, S., Silas Stephen, D., Arumuga Babu, M., Ananthan, B. e-Prime -Advances in Electrical Engineering, Electronics and Energy,2024
- Tree Species Classification by Multi-Season Collected UAV Imagery in a Mixed CoolTemperate Mountain Forest Avtar, R., Chen, X., Fu, J., ...Louw, A.S., Tatsuro, N. Remote Sensing,2024
- 3. Complex Dynamics of a Discrete-Time Food Chain Model Karmakar, S., Kumbhakar, R., Garai, S., ...Jafari, S.S., Pal, N. International Journal of Bifurcation and Chaos,2024
- 4. Solitary wave solutions of the conformable space-time fractional coupled diffusion equation Manikandan, K., Serikbayev, N.S., Aravinthan, D., Hosseini, K. Partial Differential Equations in Applied Mathematics, 2024
- 5. Wireless sensor network technology and geospatial technology for groundwater quality monitoring Venkatesh, J., Partheeban, P., Anuradha, B., Deepa, K., Sridhar, M. Journal of Industrial Information Integration,2024
- 6. Assessing the efficacy of artificial intelligence based city-scale blue green infrastructure mapping using Google Earth Engine in the Bangkok metropolitan region Hasan, M.M., Pramanik, M.K., Alam, I., ...Avtar, R., Zhran, M. Journal of Urban Management,2024
- Aquatic Conservation Monitoring for River and Lake Ecosystems with IoT and Cloud Computing Veda, P., Ranganathan, C.S., Santhuja, P., ...Meenakshi, R., Suresh Babu, T.N. Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024, 2024.

SDG 16 – Peace Justice and Strong Institutions

- 1. Latent Semantic Analysis Based Sentimental Analysis of Tweets in Social Media for the Classification of Cyberbullying Text Joy Winnie Wise, D.C., Ambareesh, S., Ramesh Babu, P., ...John Philip, B., Senthil Kumar, A. International Journal of Intelligent Systems and Applications in Engineering, 2024
- 2. Why is implementing computational intelligence for social good so challenging? Principles and its application Preetha Evangeline, D., AnandhaKumar, P. Advances in Computers, 2024

SDG 17 – Partnership for the Goals

- 1. Designing a comprehensive charging infrastructure for environmentally friendly transportation: A proposal for evaluating viability and uncertainty modeling Kumari, D.S., Manoharan, P.S., Vishnupriyan, J. Energy Conversion and Management, 2024
- Evaluating heat health risk in Indian cities: Geospatial and socio-ecological analysis Mandvikar, K., Kumar, N.J., Supe, H., ...Pandey, S.K., Avtar, R. World Development Sustainability,2024
- 3. A Multitask Learning-Based Vision Transformer for Plant Disease Localization and Classification Hemalatha, S., Jayachandran, J.J.B. International Journal of Computational Intelligence Systems, 2024
- Groundwater Quality Prediction and Analysis Using Machine Learning Models and Geospatial Technology Bommi, R.M., Partheeban, P., Rani Hemamalini, R., Sundarambal, B. Sustainability (Switzerland),2024
- 5. Combustion enhancement and emission reduction in RCCI engine using green synthesized CuO nanoparticles with Cymbopogon martinii methyl ester and phytol blends Sathiyamoorthi, R., Dinesh Babu, M., Devarajan, Y. Industrial Crops and Products,2024
- Selection of sustainable construction material from recycled waste plastics by q-rung orthopair fuzzy SWARA-MABAC approach Soni, A., Chakraborty, S., Das, P.K., Saha, A.K. Chemosphere,2024
- 7. A bookshelf layer model for anti-kink and kink pair solitons in the ferroelectric liquid crystal Annamalai, M., Ravichandran, R., Manikandan, K. Journal of Optics (India),2024

- Investigation on energy, economic, and environmental aspects of double-pass solar air heater Vijayakumar, R., Vignesh Kumar, R., Madhu, P. Environmental Science and Pollution Research,2024
- 9. Optimizing smart microgrid performance: Integrating solar generation and static VAR compensator for EV charging impact, emphasizing SCOPE index Suresh, M.P., Yuvaraj, T., Thanikanti, S.B., Nwulu, N.I. Energy Reports,2024
- Development of OCDMA system in spectral/temporal/spatial domain for nonmapping/MS/MD codes Gupta, S.K., Baronia, A., Lawrence, T.S., ...Saravanan, V.S., Jayanthiladevi, A. Journal of Optics (India),2024
- Wireless sensor network technology and geospatial technology for groundwater quality monitoring Venkatesh, J., Partheeban, P., Anuradha, B., Deepa, K., Sridhar, M. Journal of Industrial Information Integration,2024
- Effects of coupling on extremely multistable fractional-order systems Karthikeyan, R.R., Parastesh, F., Abdolmohammadi, H.R., ...Perc, M., Klemenčič, E. Chinese Journal of Physics,2024
- An intrinsic investigation of surface treated Kevlar intraply patch-repaired glass fiber polymer composites Ramasamy, N., Vellayaraj, A., Srinivasan, S., Bose, P., Muniyandi, P. Iranian PolymerJournal (English Edition),2024
- 14. Assessing the efficacy of artificial intelligence based city-scale blue green infrastructure mapping using Google Earth Engine in the Bangkok metropolitan region Hasan, M.M., Pramanik, M.K., Alam, I., ...Avtar, R., Zhran, M. Journal of Urban Management,2024
- 15. Surface metamorphosis techniques for sustainable polymers: Optimizing material performance and environmental impact Subramani, R., Rusho, M.A., Surakasi, R., ...Jeyanthi, S., Selvaraj, V.K. Applied Chemical Engineering,2024
- 16. EFFECT OF HVOF PARAMETER ON TITANIUM OXIDE (TiO) COATING CHARACTERISTICS ON AZ MAGNESIUM ALLOY Marimuthu, M., Thirumurugan, R., Mohankumar, A., Mariappan, M. Bulletin of the Chemical Society of Ethiopia,2024
- 17. Multi-scale characteristics of drought propagation from meteorological to hydrological phases: variability and impact in the Upper Mekong Delta, Vietnam Minh, H.V.T., Kumar, P.R., Downes, N.K., ...Avtar, R., Almazroui, M. Natural Hazards, 2024

- An Effective Anti-Money Laundering System Using Block Chain Technology Divya, B.S., Thara, P., Kavitha, S., ...Preethi Sri, R., Dhanalakshmi, D. International Conference on Smart Systems for Electrical, Electronics, Communication and Computer Engineering, ICSSEEC 2024 - Proceedings,2024
- Pyrolysis of Biomass Using Renewable Energy as A Heating Medium : A Review Mishra, S.S., Shanmugapriya, V. Proceedings - 2024 3rd International Conference on Computational Modelling, Simulation and Optimization, ICCMSO 2024,2024
- 20. Hybrid Fuzzy Decision-Making Model Kumar, V.S.P., Saini, D., Rastogi, S., ...Verma, A., Meenakshi, R. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2024,2024
- 21. Optimizing Power Consumption for Business Networks through Cooperative Communication in Mixed Wireless Environments Ramakrishnan, R., Kumar, V.S.P., Sanjay, C.P., ...Patre, S., Meenakshi, R. 2024 International Conference on Knowledge Engineering and Communication Systems, ICKECS 2024,2024
- 22. A techno-assessment approach on biogas yield from organic agriculture wastes of cauliflower and grape residues Narendra, N., Thirugnanasambandam, A., Bose, P., Mariadhas, A. Energy Sources, Part A: Recovery, Utilization and Environmental Effects,2024
- 23. A systematic review on the production of biodiesel using various feedstocks and effective catalysts Govindhan, P., Munusamy, R., Rajasingh, E.C., Mahendradas, D.K. Petroleum Science and Technology,2024
- 24. SVM-Guided Dynamic Routing for Post-Harvest Quality Preservation in Smart Warehouses with IoT Umamaheswari, K., Antony Joseph Rajan, D., Ramasamy, J., ...Meenakshi, R., Thamizhamuthu, R. 2024 3rd International Conference for Innovation in Technology, INOCON 2024, 2024
- 25. Comparative energy performance analysis of solar water pumping systems across diverse climate zones Partheeban, P., Manimuthu, S., Vishnupriyan, J. Journal of Engineering Research (Kuwait),2024
- 26. Assessing biodiesel feedstocks and production techniques: a comprehensive review Govindhan, P. Petroleum Science and Technology,2024

27. Forecasting the PV Power Utilizing a Combined Convolutional Neural Network and Long Short-Term Memory Model Ramakrishnan, R., Mewada, B., Meenakshi, R., ...Mohammad Wabaidur, S.M., Iqbal, A. Electric Power Components and Systems,2024