

Velammal College of Engineering and Technology, Madurai – 625 009

(Autonomous)

Journal/Conference Publication Details

Department of Mechanical Engineering

Academic Year 2024-2025

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	Springer Nature Link/ Recent Advances in Industrial and Systems Engineering	Customized Quality Assurance Methodology Based on Design Thinking for Chronic Quality Problems	Dr. G. Manikandan	Scopus	August 2024
2	Morressier / Manufacturing Letters	Mass Customization issues resolved using hybrid algorithm for making Construction steel products	Dr. G. Manikandan	Scopus	October 2024,
3	Surface Review and Letters	Optimization of cutting parameters for finish hard turning of inconel 718 using tialn/ticn-coated cermet cnc cutting tool: a touchy-rsm orthogonal array approach	Dr.V.Anbumalar	Scopus	February 2025
4	Int. J. Abrasive Technology	Effect of process parameters on abrasive water jet machining of natural and synthetic fibre reinforced polymer composites: a review	Dr.V.Anbumalar	Scopus	February 2025
5	Journal Materials Testing	Performance of high strength natural fiber reinforced hybrid composites for structural engineering applications	Dr.V.Anbumalar	Scopus	February 2025
6	Springer Interactions	Investigate the mechanical properties of Cu-SiO ₂ nanocomposite via powder metallurgy	Dr.M.Maran	Scopus	July 2024

7	Interaction Conference Proceedings	Emission evaluation on distilled oil of pyrolyzed waste tyre oil with nano pyrogallol fuelled DIC engine	Dr.T.Kamatchi	Scopus	July 2024
8	Interaction Conference Proceedings	A study on mechanical and tribological properties of AMMC through stir casting process	Dr.T.Kamatchi	Scopus	July 2024
9	Innovation and Emerging Technologies	Optimization to release net zero emission in built environment from newly developed natural fiber–hybrid composite	Dr. T. Amuthan	Scopus	July 2024
10	Interaction Conference Proceedings	Natural/synthetic fiber reinforced hybridcomposites on their mechanical behaviors– a review	Mr. R.Elilvanan	Scopus	Jul 2024
11	Biomass Conversion and Bio refinery	Synthesis and characterization of pectin biopolymer from orange peel wastes and its effect on pineapple fiber-reinforced vinyl ester composite	Mr I. Ambrose Edward	Scopus	Jan 2025
12	Journal of Physics: Conference Series	An experimental investigation into the Mechanical properties of jute Fiber / nano-sized ZrC Polymer Composites	Mr I. Ambrose Edward	Scopus	Dec 2024
13	Interactions	Sustainable synthesis of MnFe ₂ O ₄ nano-ferrites using Azadirachta indica leaf extract: compare structural characteristics, magnetic and antibacterial properties	Mr. A. Mothilal	Scopus	Apr 2025
14	AIP Conference	Numerical Investigation of Heat Transfer in Friction Stir Welding of	Dr. M. Vivek Prabhu	Scopus	July 2024

		15Al/Mg joints			
15	Scientific Reports	Unleiling optimal mother wavelets by COPRAS Method Analyzing speech signals despite face mask and shield obstacles	Dr. M. Rajachnadra Sekar	Scopus	Apr 2025
16	Materials Testing	Influence of betel nut fiber hybridization on properties of novel aloevera fiber-reinforced vinyl ester composites	Dr. R. Karthick	Scopus	June 2024
17	Materials Testing	Mechanical Properties of Novel PolylacticAcid3D\Printed Core/Aloevera/GlassFiber Reinforced Hybrid Composites	Dr. R. Karthick	Scopus	Aug 2024
18	Materials Testing	Friction and wear behavior of alkali-treated corn husk fiber reinforced polyester composites	Dr. R. Karthick	Scopus	Oct 2024
19	Materials Testing	Performance of high strength natural fiber reinforced hybrid composites for structural engineering applications	Dr. R. Karthick	Scopus	Feb 2025
20	Materials Testing	Characterization of bauxite residue filled reinforced hybrid composites for sisal/glass fiber reinforced hybrid composites for structural applications	Dr. R. Karthick	Scopus	Oct 2024
21	Nanomaterials and Energy	Effect of nanomaterials on the melting and freezing characteristics of phasechangematerial	Dr. B.Jegan	Scopus	2024
22	Engineering Headway	Preparation and Investigation on Thermal Characteristics of Nanoenhanced Phase Change Material	Dr. B.Jegan	Scopus	2024
23	Interactions	Experimental investigation of mechanical and metallurgical	Mr. M. Karuppaiah Rajkumar	Scopus	Jan 2025

		properties of LM25 aluminium alloy with boron carbide composite			
24	AIP Conference	Investigation on alkali treated Baheda seed filler reinforced polymer composites	Mr. H. Ramkumaresh	Scopus	Jun 2024
25	Interactions	Wear analysis of Al-SiC-Jute ash hybrid composite via stir casting process	Mr. H. Ramkumaresh	Scopus	Dec 2024
26	Environmental Science and Pollution Research	Performance and emission analysis of diesel engine using calophyllum inophyllum methyl ester (CIME) diesel with oxygenated additive	Dr.N.Eswara Prasath	Scopus	2024
27	Journal of The Institution of Engineers (India): Series D	Formability and Strength Enhancement of AA7075 Sheets by Cry rolling and Post- Treatment	Dr.N.Eswara Prasath	Scopus	July 2024

Academic Year 2023-2024

S. No	Name of the Journal/ Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/ WoS/Google Scholar	Date of Publication
1.	Materials Research Express	Optimizing machining efficiency: a comprehensive study on PVD cathodic arc evaporation coated turning tool inserts with TiAlN/AlCrN multilayer coatings	Dr.V.Anbumalar	Scopus	June 2024
2.	E3S Web of Conferences	Optimization of welding parameters on weld deposits area in pulsed	Mr I. Ambrose Edward	Scopus	May 2024

		gas metal arc welding			
3.	Journal of Physics: Conference Series	Investigate the mechanical properties of Aluminium Metal Matrix Composite	Mr. A. Mothilal	Scopus	May 2024
4.	Advances in Materials Science and Engineering	Investigation of Mechanical and Thermal Stabilities of Tamarind Seed	Mr. R.Elilvanan	Scopus	Jan 2024

Academic Year 2022-2023

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	BioMed Research International	AZ63/Ti/Zr Nanocomposite for Bone-Related Biomedical Applications	Dr Amuthan T	Scopus	Sep 2022
2	Materials Today: Proceedings	Analysis of mechanical properties enhancement on composites of AA7175 by multi walled carbon nano tube (MWCNT)	Dr Kamatchi T	Scopus	Sep 2022
3	Materials Today: Proceedings	Mechanical characterization of friction stir welded dissimilar aluminium alloy using Taguchi approach	Dr Amuthan, T	Scopus	Sep 2022
4	Materials Testing	Effect of red mud on mechanical and thermal properties of agave sisalana/glass fiber-reinforced hybrid composites	R Karthick Dr V Anbumalar	Scopus	Sep 2022
5	International Journal of Advanced	Intelligent VSM Model: a way to adopt	M. Raja .Chandra.Sekar	Scopus	Sep 2022

	Manufacturing Technology	Industry 4.0 technologies in manufacturing industry	Dr V Anbumalar		
6	Journal of Applied Pharmaceutical Science	Computational design for the development of natural molecules as compelling inhibitors against the target SARS-CoV-2: An in-silico attempt	Dr G Manikandan	Scopus	Sep 2022
7	Chemical Papers	A facile one-pot green-mediated approach of plasmonic (Ag and Au) nanoparticles fabricated by Hybanthus enneaspermus flower extracts for catalytic, anti-bacterial and anti-arthritis activity	Dr Kamatchi, T	Scopus	Sep 2022
8	Biomass Conversion and Bio refinery	Effect of filler content and size on the mechanical properties of graphene-filled natural fiber-based nanocomposites	Dr Kamatchi, T	Scopus	Oct 2022
9	IEEE Transactions on Engineering Management	Impact of High-Performance Work Practices on Efficiency and Effectiveness of Multispecialty Healthcare Service Delivery in an Emerging Economy - Role of Relational Coordination	Dr Kamatchi, T	Scopus	Jan 2023
10	Energies	Investigation of Thermo-Hydraulic Performances of Artificial Ribs Mounted in a Rectangular Duct	Dr G Manikandan	Scopus	Jan 2023
11	International Journal of Advanced Technology and	Mechanical and wear characteristics of (Al7075/SiC/Gr/Zr)	Dr V Anbumalar.	Scopus	Mar 2023

	Engineering Exploration	hybrid metal matrix composites using ultrasonic assisted stir casting process			
12	Materialprüfung/Materials Testing	Tribological behaviour of industrial waste based agave sisalana/glass fiber reinforced hybrid composites for marine applications	R Karthick Dr V Anbumalar.	Scopus	May 2023
13	Energies	Review of Waste Cooking Oil (WCO) as a Feedstock for Biofuel—Indian Perspective	Dr G Manikandan	Scopus	May 2023
14	Materials Today: Proceedings	Cutting zone temperature reduction in by using novel nanofluid in SAE1144 machining	Dr Amuthan, T		May 2023
15	Materials Today: Proceedings	Experimental investigation of mechanical properties on CF reinforced PLA, ABS and Nylon composite part	Dr V Anbumalar.		May 2023

Academic Year 2021-2022

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	AIP Conference Proceedings	Potential Utilization and Characterization of Epoxy Based Biomaterials under Alkaline Environment	Velmurugan, G., Dinesh Kumar, N., Perumal, A., Rajkumar, P.R., Gangadharan, T., Sekar, S., Suresh Kumar, S., Siva Shankar, V., Bhagavathi, M.S.	Scopus	July 2021
2	Journal of the Brazilian Society of Mechanical	Investigating the parametric effects on wire electric discharge machining performance in processing	Hynes, N.R.J., Kumar, D.S.S.P., Prabhu, M.V., Ali, M.A., Raza, M.H.,	Scopus	July 2021

	Sciences and Engineering	AA1050-5 wt.% SiC composite with zinc-coated brass wire	Pruncu, C.I.		
3	Thermal Science	Experimental Analysis Of Solar Air Heater Using Polygonal Ribs In Absorber Plate Integrated With Phase Change Material	Balakrishnan, V.K., Gurunathan, M., Parthasarathy, R.K., Poluru, V.R.	Scopus	July 2021
4	Materials Today: Proceedings	Evaluation on hardness and percentage of elongation discrepancy by Zinc oxide nanoparticles on AA6070 alloy composites	Rajesh, S., Saravanan, R., Kamatchi, T., Gnanavel, C., Ajith Arul Daniel, S., Nagarathi, D.K.	Scopus	July 2021
5	Advances in Materials Science Research	Machining behaviour of natural fiber reinforced epoxy composites	Karthick, R., Anbumalar, V.	Scopus	July 2021
6	Physica B: Condensed Matter	A novel p-CuFe2O4/n-ZnS heterojunction photocatalyst: Co-precipitation synthesis, characterization and improved visible-light driven photocatalytic activity for removal of MB and CV dyes	Amuthan, T., Sanjeevi, R., Kannan, G.R., Sridevi, A.	Scopus	Dec 2021
7	Journal of Inorganic and Organometallic Polymers and Materials	Processing and Characterisation of Epoxy–SiC Functionally Graded Polymer Matrix Composites	Amuthan, T., Rathinam, V., Subbarayan, M.R., Radha Krishnan, B.	Scopus	Jan 2022
8	Materials Today: Proceedings	Synthesis of Zinc oxide and CNT in AA7178 aluminium alloy composite impression on characteristics	Saravanan, R., Gnanavel, C., Rajesh, S., Kamatchi, T., Ajith Arul Daniel, S., Nagarathi, D.K.	Scopus	Jan 2022
9	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	An experimental insight of friction stir welding of dissimilar AA 6061/Mg AZ 31 B joints	Rajesh Jesudoss Hynes, N., Vivek Prabhu, M., Shenbaga Velu, P., Kumar, R., Tharmaraj, R., Farooq, M.U., Pruncu, C.I.	Scopus	Jan 2022
10	Materials Today: Proceedings	Reconnoitering the influence of nanofluid of GnPs enriched waste coconut oil in machining SAE 1045 shaft on	Raja, S., Saravanan, R., Maran, M., Rajesh, S., Senthilkumar,	Scopus	Jan 2022

		modification surface finish	R., Nagarathi, D.K.		
11	Journal of Natural Fibers	A Review on Drilling of Natural and Synthetic Fiber Reinforced Polymer Composites: 1992 - 2021	Rasu, K., Veerabathiran, A.	Scopus	Mar 2022
12	Materials Today: Proceedings	Experimentally exploring nano-fluid of GnPs enriched waste coconut oil effects in cutting zone temperature reduction in motor shaft manufacturing process	Senthilkumar, R., Saravanan, R., Maran, M., Rajesh, S., Raja, S., Nagarathi, D.K.	Scopus	Mar 2022
13	Materials Today: Proceedings	Experimental analysis on Feed force reduction performance by Nanofluid of Graphene Nano platelets enriched Waste Coconut Oil in wet Machining of SAE 1045 Steel Shaft	Maran, M., Saravanan, R., Rajesh, S., Raja, S., Senthilkumar, R., Nagarathi, D.K.	Scopus	Apr 2022
14	Journal of Natural Fibers	Finite Element Analysis of Hemp Fiber Reinforced Cellulose Filled Epoxy Hybrid Composite	Anand, P., Rajesh, D., ShunmugaSundaram, M., Anbumalar, V.	Scopus	May 2022

Academic Year 2020-2021

S. No	Name of the Journal/ Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/ WoS/Google Scholar	Date of Publication
1	Energy	Enhancement of heat transfer in SAH with polygonal and trapezoidal shape of the rib using CFD	Varun Kumar, B., Manikandan, G., Rajesh Kanna, P.	Scopus	Jun 2020
2	International Journal of Manufacturing Technology and Management	Cellular layout formation using clonal selection algorithm with fixed entry and exit point	Anbumalar, V., Mayandy, R., Shunmugasundaram, M.	Scopus	Jan 2021
3	Materials Today: Proceedings	Experimental study of mechanical properties of AA6061 and AA7075 alloy joints using friction stir welding	Amuthan, T., Nagaprasad, N., Krishnaraj, R., Narasimharaj, V., Stalin, B., Vignesh, V.		Jan 2021
4	Materials Today:	Evaluate the structural	Jule, L.T.,		Jan 2021

	Proceedings	and thermal analysis of solid and cross drilled rotor by using finite element analysis	Krishnaraj, R., Nagaprasad, N., Stalin, B., Vignesh, V., Amuthan, T.		
5	Mathematical Problems in Engineering	Minimizing Cost of Assembly of an Interrelated Dimensional Chain Product Using ABC Algorithm	Sivakumar, M., Lenin, N., Jayakrishna, K., Prasath, N.E.	Scopus	Feb 2021
6	Materials Today: Proceedings	Experimental investigation of injection moulding using thermoplastic polyurethane	Nagasundaram, N., Devi, R.S., Rajkumar, M.K., Sakthivelrajan, K., Arravind, R.		May 2021

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