



KONGUNADU COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)
NAMAKKAL- TRICHY MAIN ROAD, THOTTIAM, TRICHY

DEPARTMENT OF MECHANICAL ENGINEERING

ACADEMIC YEAR 2023-2024

FACULTY PUBLICATIONS - International / National Journals

SL. NO	DETAILS
1.	K.Periasamy, Karthigairajan.M., R.Venkatesh, S.Padmavathy, “Enhancement of High Density polyethylene (HDPE) composite behaviour by TiO ₂ and Al ₂ O _{3f} Bio Ceramic Fillers”, Journal of Polymer Research, (Published Online)
2.	N.Sivashankar, R.Thanigaivelan, K.G.Saravanan, “Electrochemical Micromachining and Parameter Optimization on AZ31 Alloy-ANN and TOPSIS Techniques” , Bulletin of the Chemical Society of Ethiopia, Vol. 37 No. 5 (2023)
3.	R Karthik, N Shiva Sankaran , K Venkatesh Raja, R Venkatesh, “Synthesis and characteristics evaluation of magnesium alloy (AZ91) nanocomposite developed with ZrO ₂ via liquid state stir cast process”, Sadhana-Academy Proceedings in Engineering Sciences, Vol. 48, 188 (2023)
4.	K.R. Padmavathi, R. Venkatesh, G. Ramya Devi, V. Muthukumar, “Synthesis and Characteristics Evaluation of Sic _{np} and Sic _{np} /CNT-Reinforced AZ91D Alloy Hybrid Nanocomposites Via Semisolid Stir casting Technique”, International Journal of Metalcasting, (Published Online)
5.	S. Senthilkumar, K. Revathi, R. Venkatesh, E. Sivaprakash, “Enhancement of Magnesium alloy (AZ31B) Nanocomposite by the Additions of Zirconia Nanoparticle Via Stircasting Technique: Physical, Microstructural and Mechanical Behaviour”, International Journal of Metalcasting, (Published Online)
6.	Prudhvi Krishna Amburi, G.Senthilkumar, A.Nithya, “Novel Use of CuO nanoparticles additive for improving thermal conductivity of MgO/water and MWCNT/water nanofluids”, Journal of Thermal Analysis and Calorimetry, (Published Online)



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7.	K. R. Padmavathi, R. Venkatesh, Melvin Victor De Poures, G. Selvakumar, “Synthesis of Al/Mg Hybrid Nanocomposite by Electromagnetic Stir Cast: Characteristics Study”, Silicon, (Published Online)
8.	R. Venkatesh, P. Sakthivel, G. Selvakumar, A. Mohana Krishnan, P. Purushothaman, C. B. Priya, “Mechanical and Thermal Properties of a waste fly ash-bonded Al-10 Mg alloy Composite Improved by bioceramic Silicon nanoparticles”, Biomass Conversion and Biorefinery, (Published Online)
9.	Periasamy Kaliyannan, A. H. Seikh, M. A. Kalam, R. Venkatesh, “Fabrication and Characteristics study of Aluminium Alloy Hybrid Nano composite Synthesized with SiC and waste Metal Powder”, Silicon, (Published Online)
10.	S. Vandaarkuzhali, P. Balu, D. Jayabalakrishnan, M. Maniyarasan, “Influence on the energy conservation and Green Environment R152A Refrigeration with various Nano Refrigerants”, Nano, (Published Online)
11.	G.Nagaraj, Mohamed Ali, R.Venkatesh, Ra.Aravind, “Synthesis of Green Cocos Nucifera L Fiber loading waste LDPE Composites enriched with SiC: Performance Evaluation”, Silicon, (Published Online)
12.	K.Yesuraj, Mohammed Ali, R.Venkatesh, S.Chandrakumar, “SiC actions on characteristics analysis of AZ91D hybrid nano composite by Liquid state processing” International Journal of Applied Ceramic Technology, (Published Online)
13.	K.Suganeswaran, P.Muthukumar, R.Sathiskumar, R.Parameshwaran, N.Nithyavathy, “Evaluation of Microstructural, Tribological and Tensile Characteristics of AA7075 Surface composites fabricated through Friction stir Process” Journal of Process Mechanical Engineering Part – E, (Published Online)
14.	Periasamy Kaliyannan, Murugan perumal, J.Manivannan, R.Venkatesh, “Enhancing Mechanical and Functional Properties of LM25 Alloy Through Squeeze cast Hybrid Nano Composite incorporating Breadfruit seed husk ash and Graphite nano Particles”,



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	International Journal of Cast Metals Research, (Online Published)
15.	A.Baraniraj, A.P.Sathiyagnanam, R.Venkatesh, S.Kumaravel, “Characterization Effect of Pozzolanic Waste-Reinforced A356 Alloy Composites by Liquid Metallurgy Semisolid Stir Cast”, Journal of Material Engineering and Performance, (Published Online)
16.	P.Venugopal, Thayammal Ganesan Arul, V.Selvam, K.Saranya, “Effect of Electrochemical Process Parameters on the Hastelloy C-276 Alloy for Machining Speed and Surface Corrosion factor” Materiali in Technologije, (Published Online)
17.	K.R.Padmavathi, Sulaiman Ali Alharbi, R.Venkatesh, E.Sivaprakash, ‘SiC Blending Behaviour of Hybrid AZ31 Alloy Nanocomposite: Metallographic and Mechanical Studies’, Silicon, (Published Online).
18.	T.Yuvaraj, S.K.Tamang, R.Arivazhagan,M.Naga Swapna Sri, ‘Enhancing EDM Performance on TiN-Si ₃ N ₄ using a hybrid Computation intelligence Algorithm (Grey-ANFIS)’, Journal of the Australian Ceramic Society, (Published Online)
19.	K.R.Padmavathi, Subramaniam Prabakaran, Venkatesh Rathinavelu, Subramaniam Mohankumar ‘Cupric oxide nanofluid influenced parabolic trough solar collector: Thermal Performance Evaluation’, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Vol.46, No.1, pp. 2811-2827
20.	Lokesh Selvam, Sakthivel Perumal, Mahendran Jayavel, Venkatesh Rathinavelu, Veluchamy Balakrishnan, Priya Chathapuram Balasubramanian, Ismail Hossain, V. Mohanavel ‘Nanofabrication and influence of Titanium Carbo-nitride coating tool on machinability behavior of magnesium alloy nano composite’, The International Journal of Advanced Manufacturing Technology, (Published Online).
21.	Sakthivel Perumal, Mohana KrishnanAmarnath,Karthigairajan Marimuthu,Prabakaran Subramaniam,Venkatesh Rathinavelu,Duraisamy Jagadeesh, ‘Titanium carbonitride-coated CBN insert featured turning process parameter optimization during AA359 alloy machining’, The International Journal of Advanced Manufacturing Technology, (Published Online).



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22.	S.Sudhagar, P.M.Gopal, M.Maniyarasan, S.Suresh, V.Kavimani, 'Multi-Objective Optimization of machining parameters for Si ₃ N ₄ -BN Reinforced Magnesium Composite in Wire Electrical Discharge Machining', International Journal on Interactive Design and Manufacturing, (Published Online).
23.	C.Dineshababu, N.Shivasanakaran,K.Venkatesh Raja, R.Venkatesh 'Performance analysis of baffle configuration effect on thermo-hydraulic behavior of shell and tube heat exchanger', Journal of Thermal Analysis and Calorimetry, (Published Online).
24.	P. Dhiravidamani · D. Jagadeesh, Sami Al Obaid, R. Venkatesh, 'Influence of sisal-glass fiber/SiC combinations on behaviour of hybrid epoxy composite synthesized by advanced hot compression technique', Journal of Polymer Research, (Published Online).
25.	Periasamy K, Prathap P, Arunnath A, Madhu S, 'Exploring the effect of bio-silica on the mechanical, microstructural, and corrosion properties of aluminium metal matrix composites, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, (Published Online)
26.	R.Karthik, N.Shivasankaran, K.Venkateah Raja, R.Venkatesh, ' Characteristics performance evaluation of AZ91-flyash composite developed by vaccum associated stir processing', International Journal of Cast metal research, (Published Online).
27.	M. Krishna, Sourav Prasad Panda, Aman Pandey, Raj Aryan, Shakti Singh, R. Karthik, 'Water level monitoring and alerting system in a sequential manner using PLC', AIP Conference Proceedings, Vol.2912, Issue 1.
28.	S. Ganesh, A. R. Lokesh, N. Pranesh, A. Karthikeyan, S. Sangesh, R. Karthik, 'Design and fabrication of portable power generator using thermoelectric module and food waste heat energy', AIP Conference Proceedings, Vol.2912, Issue 1.
29.	J. Francis Xavier, D. Katherasan, D.Jayabalakrishnan, M. Maniyarasan, I. John Solomon 'Low Cycle Fatigue behavior of Cerium-Modified stainless steel at elevated temperature and the impact of Aluminium/Zinc Ratio', SAE International, (Published Online)



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30.	J. Francis Xavier, D.Katherasan, D. Jayabalakrishnan, M. Maniyarasan, I. John Solomon 'A Direct Current memory properties of Aluminium/Silicon Alloy thin Films Magnetron sputtering study of the shape', SAE International, (Published Online)
31.	M.Rajesh, S.Kumaravel, M.Kumaresan, "Multiobjective optimization of MIG Welding process Parameters on AA6061-T6 using Taguchi-GRA entropy Method" AIP Conference Proceedings, (Published Online)

FACULTY PUBLICATIONS - International / National Conferences

SL. NO	DETAILS
1.	Mr.C.Dineshbabu, "Investigation of the shot peening process and surface modification technique to improve Heat Transfer of the Shell and Tube Heat Exchanger", International Conference on Engineering and Technology (ICET- 2023) at Selvam College of Technology on 21.09.2023 & 22.09.2023
2.	Mr.R.Arivazhagan, "Effective utilization of Plastic Wastes to Bio-Hydrogen via Pyrolysis technique: Characteristics Evaluation", First IEEE International Conference on Multidisciplinary Research in Technology and Management (MRTM 23) on 22.09.2023 & 23.09.2023
3.	Mr.R.Arivazhagan, "Enhancement of Solar Power Conversion Efficiency by an active dual thin layer of Ga-ZnO for EVs Applications", First IEEE International Conference on Multidisciplinary Research in Technology and Management (MRTM 23) on 22.09.2023 & 23.09.2023
4.	Mr.R.Arivazhagan, "Effect of ZnO and CdZnO thin Flim Transistors on Solar Electrical and Optical Behaviour Characteristics Study", First IEEE International Conference on Multidisciplinary Research in Technology and Management (MRTM 23) on 22.09.2023 & 23.09.2023.



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5.	Mr.N.Kawin, 'Performance Assessment of four types of Cyclone Separator using Computational Fluid Dynamics', International Conference on Emerging Materials and Technology, at K.S.R College of Engineering on 21.02.2024 and 22.02.2024.
6.	Mrs.V.Selvam, 'Experimental Analysis of ESP in GI Duct', International Conference on Emerging Materials and Technology, at K.S.R College of Engineering on 21.02.2024 and 22.02.2024.
7.	Dr.A.Nithya, 'A CFD Analysis of Flow Rate in Shell and Tube Heat Exchanger', International Conference on Emerging Materials and Technology, at K.S.R College of Engineering on 21.02.2024 and 22.02.2024.
8.	Mr.C.Dineshababu, 'Spring Design for Knockout machine', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
9.	Mr.N.Kawin, 'Low-Cost Indigenous Paddy Collector and Spreading Machine for the Benefit of the Farmer', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
10.	Dr.G.Saravanan, 'Root Cause Analysis of Novo Pulley Plate', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
11.	Dr.N.Sivashankar, 'Design and Development of Smart E-Moto with Wheel Chair cum Stretcher', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
12.	Mr.S.K.Karthikeyan, 'Feasibility Analysis of Mixed tire and plastic oil blends with Cerium oxide Nano Particles in CRDI Engine', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.



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13.	Dr.D.Jagadeesh, 'Analysis of Eats system in BS6 Vehicle Engines', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
14.	Mr.M.Maniyarasan, 'Design and Fabrication of Jig and Fixture for 3-Axis Vertical Machining Centre', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
15.	Mr.M.Maniyarasan, 'Design and Performance Analysis of Electrochemical Micro Machining on GI Sheet', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
16.	Mrs.V.Selvam, 'To eliminate Rejection rate in Production Line by Implementing Poka-Yoke Technique', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
17.	Mr.M.Dineshkumar, 'Evaluating the Solar Chimney with Various parameters for Carbon dioxide Measurement', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
18.	Mr.N.Ravikumar, 'Investigation of SCR System by using Foramide to reduce NOx in Diesel Engine', International Conference on Engineering, Technology and Science, at Muthyammal College of Engineering on 20.03.2024.
19.	Mr.V.Muthukumar, 'Structural Analysis of a Coconut husk shredding machine', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
20.	Mr.E.Sivaprakash, 'Solar based Green Hydrogen Production with Heater and Riser Tube arrangements', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.



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21.	Dr.K.Periasamy, 'CFD Analysis Of Plate Heat Exchanger', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
22.	Mr.G.Selvakumar, 'Analysis of ABS in BS-6 Engines using Diagnostic Tools', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
23.	Dr.N.Sivashankar, 'Analysis Of Overheating on BS-VI Engine', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
24.	Mr.R.Periyasamy, 'Experimental analysis of Ferro Fluid Filled MU Metal Casing for EMI Sheilding in Power Drives', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
25.	Mr.R.Periyasamy, 'Reducing Cycle Time for the CNC Turing Process of 4 Inch Fine Flange', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
26.	Mr.R.Karthik, 'Investigation of Mechanical Property of Magnesium Based nano Composite', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
27.	Mr.S.Chandrakumar, 'Mechanical Behaviour of Kevlar and Glass Fiber Composite for Automobile Application', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
28.	Dr.D.Jagadeesh, 'Effective Pre-Cooling Techniques for Extended Tomato Storage', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.



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29.	Mr.C.Dineshbabu, 'Enhancing Productivity by using MASTERCAM Programming for Vertical Machining Centre', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
30.	Mr.R.Arivazhagan, 'CFD Analysis of Heat pipe based on Air preheater', International Conference on Computational Intelligence and Industry 5.0, at Velammal Institute of Technology on 03.04.2024.
31.	Mr.S.Mohankumar, 'Experimental Analysis for improving Cutting parameters on horizontal CNC turning machine', International Conference on Innovative trends in Engineering and Sciences, at Bannari Amman Institute of Technology on 26.03.2024 & 27.03.2024.
32.	Mr.Ra.Aravind, 'Enhancing Productivity through experimental investigation of CNC machine Tool Fixture', International Conference on Innovative trends in Engineering and Sciences, at Bannari Amman Institute of Technology on 26.03.2024 & 27.03.2024.
33.	Mr.S.Kumaravel, 'Design and Analysis of Dissimilar Metal Welde joint', International Conference on Innovative trends in Engineering and Sciences, at Bannari Amman Institute of Technology on 26.03.2024 & 27.03.2024.
34.	Mrs.V.Selvam, 'Investigation of the exhaust system using diagnostic tools to reduce nitrogen oxides in BS6 Engines', International Conference on Recent Trends in Engineering, Technology and Management, at Suguna College of Engineering on 05.04.2024 & 06.04.2024.
35.	Dr.G.Saravanan, 'Analysis of Vehicle pickup performance in BS6 – c828 Model', International Conference on Manufacturing, Simulation and Control, at Karpagam College of Engineering on 23.03.2024 & 24.03.2024.
36.	Mr.P.Raja, 'Design the body pump Fixture to minimize the machining cost by CNC Turning Machine', National Conference on Recent Advances in Communicative Electronics, at SRM-



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	TRP Engineering College on 14.03.2024 & 15.03.2024.
37.	Mr.Ra.Aravind, 'Assessing the Mechanical Properties of Banana Glass fiber Reinforced Epoxy Hybrid Composites', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
38.	Mr.M.Dineshkumar, 'CFD analysis of Conjugate Heat Transfer in Combined Aluminium and Copper Made Heat Sink', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
39.	Mr.C.Dineshbabu, 'Investigation into the production of prototypes and customized auto parts using 3D printing in the automotive Industry', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
40.	Mr.J.Mahendran, 'Numerical Simulation of welding using transient , thermal and thermo-elasto-plastic formulations', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
41.	Mr.S.Mohankumar, 'Al359 Composite's tribological behavior with 5%and 10% Al ₂ O ₃ , flyash and B ₄ C', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
42.	Mr.N.Ravikumar, 'Performance assessment of Single pass Solar Air Heater with and Without Baffles', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
43.	Mr.S.K.Karthikeyan, 'Microstructural Analysis of wirearc additive manufacturing with AWS ER 70S-6', National Conference on Recent Advances in Communicative Electronics, at SRM-TRP Engineering College on 14.03.2024 & 15.03.2024.
44.	Mr.S.Kumaravel, 'Effects of Plasma arc welding on Dissimilar metals', National Conference



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	on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
45.	Dr.G.Saravanan, 'Experimental Investigation of TIG-MIG Hybrid Welding Composites', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
46.	Mr.R.Karthik, 'Investigation of Mechanical Properties of Dissimilar Weldmen & AISI304 by Using TIG Welding and Comparison', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
47.	Mr.G.Selvakumar, 'Safety System Implementation in Iron Foundry', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
48.	Mr.P.Raja, 'Development of Digital Twin Technology for Real Time Monitoring and Optimization of Manufacturing Operations', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
49.	Dr.A.Nithya, 'Advanced Additive Manufacturing through Wire Arc Technology', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
50.	Mr.S.Chandrakumar, 'Evaluation of the Corrosion Resistance of Steel Element in the Industrial Aggressive Environment', National Conference on Materials, Manufacturing and Thermal Science at Karpagam Academy of Higher Education on 08.03.2024.
51.	Mr.S.Chandrakumar, 'Mechanical and Tribological Behaviour of Kevlar fiber composites using filler material for automobile applications', National Conference on Innovative Technologies in Engineering and Science at A.V.C College of Engineering on 22.03.2024.



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52.	Mr.P.Raja, 'Analysis of Microstructure and Mechanical Properties of Spin Arc Welding in Hast Alloy (c-276)', National Conference on Advancement in Mechanical Sciences at Velammal Engineering College on 14.03.2024.
53.	Mr.S.Mohankumar, 'Analysis of wear behavior of aluminium 7075 hybrid Composites', National Conference on Emerging Trends in Engineering and Technology at Nandha College of Technology on 06.04.2024.
54.	Mr.N.Kawin, 'Enhancing the flow rate of shell and tube heat exchanger using Non-newtonian fluid-A CFD Approach', National Conference on Emerging Trends in Engineering and Technology at Nandha College of Technology on 06.04.2024.