FACULTY PUBLICATIONS – 2024–25

Department of Mechanical Engineering

S. No.	Title of paper	Name of author(s)	Department of teacher	Name of journal / conference	Year
1	An integration of RSM and ANN modelling approach for prediction of FSW joint properties in AA7178/AA5456 alloys	S. Vijayakumar	Mechanical Engineering	The Canadian Journal of Metallurgy and Materials Science	2025
2	Combined Impact of SiC/TiB2 Nanoparticles in Friction Stir Welding of Different Aluminium Alloys	S. Vijayakumar	Mechanical Engineering	Euro-Asian Conference on Sustainable Nanotechnology, Environment, & Energy (SNE2-2024)	2024
3	Comparative Studies on Micro-Fins Geometry for Fin Efficiency and Effectiveness	S. Vijayakumar	Mechanical Engineering	Journal of Studies in Science and Engineering	2024
4	Multi-response optimization of FSW parameters for Al–Mg–Zn alloys using Box–Behnken design and gray relational analysis and comparative study with ANFIS technique	S. Vijayakumar	Mechanical Engineering	AIP Publishing	2025
5	Cyclic oxidation of 304L and 316L stainless steel coated and uncoated with Cr3C2–NiCr at elevated temperatures	Dr. Sujeet Kumar	Mechanical Engineering	Materials Science-Poland	2025

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6	Evaluation of microstructural and mechanical qualities in optimised TIG-welded SDSS 2507 joints	Dr. Sujeet Kumar	Mechanical Engineering	Materials Science-Poland	2024
7	Evolution of surface morphology and mechanical characterization of GTAW welded SDSS thin sheets	Dr. Sujeet Kumar	Mechanical Engineering	Results in Surfaces and Interfaces (Elsevier)	2025
8	An extensive analysis of GTAW process and its influence on the microstructure and mechanical properties of SDSS 2507	Dr. M. Naveen Srinivas	Mechanical Engineering	Journal of Materials Research and Technology (Elsevier)	2024
9	Artificial neural network based prediction of specific wear rate in Al7475 composites reinforced with industrial wastes	S. Vijayakumar	Mechanical Engineering	The Journal of Mechanical Engineering Science	2025
10	Predict the modeling of cement concrete strength using Taguchi and ANOVA method	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical and mechanical science	2024
11	Analysis of wear mechanisms in AA2024/TiB2 composites under different loads	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical and mechanical science	2024
12	The influence of Sodium Nitrate electrolyte on Aluminium scrapped wheel in the ECM process	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical	2024

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				and mechanical science	
13	The Role of Nanoparticle Based Coating in Optimizing TIG Welding Parameters for EN31 Steel	S. Vijayakumar	Mechanical Engineering	Euro-Asian Conference on Sustainable Nanotechnology, Environment, & Energy (SNE2-2024)	2024
14	Examination of Abrasive water jet machining for Al hybrid composites using RSM-Central composite design	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical and mechanical science, Springer Nature	2024
15	Artificial neural network approach for predicting the mechanical properties of Al7475/Flyash/SiC hybrid composite	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical and mechanical science, Springer Nature	2024
16	Enhancement of TIG welding performance on carbon steel by Taguchi-TOPSIS optimization	S. Vijayakumar	Mechanical Engineering	ICSIMMA 2024 – Materials interaction on physical, chemical and mechanical science: Interactions	2024