S.A. ENGINEERING COLLEGE

(Autonomous - Institute Level Research Centre, Affiliated to Anna University, Chennai)

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DEPARTMENT OF MECHANICAL ENGINEERING

DETAILS OF PUBLICATIONS OF FACULTY (AY 2024 – 2025)

S.NO	NAME OF THE FACULTY	Title of the paper	Name of the Journal/Conference with vol no, issue no, page no and impact factor.	Date of publication/ presentation	DOI and Annexure details(refer Annexure details of Anna University, Chennai)
1.	Dr.P.Sevvel & Mr.J.Vasanthe Roy	**Optimization of FSW Parameters Using SA Algorithm and ANFIS-Based Models to Maximize Mechanical Properties of AZ80A Mg Alloy Joints**	Journal of Materials Engineering and Performance (2024)	12.09.2024	SCIE https://doi.org/10.1007/s11665-024-10062-z
2.	Dr.P.Sevvel & Mr.J.Vasanthe Roy	**Multi objective optimization of parameters during FSW of AZ80A – AZ31B Mg alloys using grey relational analysis**	Journal of Mechanical Science and Technology, 38(9) 2024	04.09.2024	SCIE https://doi.org/10.1007/s12206-024-0832-3
3.	Dr.P.Sevvel & Mr.J.Vasanthe Roy	**Experimental and Optimization based analysis to maximize mechanical related attributes of friction stir welded CDA101 Cu alloy joints**	Surface Review and Letters, 2550042	30.09.2024	SCIE https://doi.org/10.1142/S0218625X25500428
4.	Mr.K.Manimaran	**AI-Enhanced Frequency Control in Integrated Wind and Solar Power Systems for Efficient Energy Generation**	2024 International Conference on Science Technology Engineering and Management (ICSTEM)	25.06.2024	Conference Scopus https://doi.org/10.1109/ICSTEM61137.2024.10560760

5.	Mr.S.R.Venkataraman	**A Comprehensive IoT-Based Automation System for Enhanced Productivity and Sustainability for Advancing Farming Efficiency**	Nanotechnology Perceptions 20 No. S5 (2024) 215–228	04.06.2024	Scopus https://doi.org/10.62441/nano-ntp.v20iS5.18
6.	Mr.S.R. Venkataraman, & Dr.S.Vishvanathperumal	**Comparative Analysis of Cure Behaviors, Mechanical Properties, and Swelling Resistance in EPDM/SBR Composites with HNTs, APTES-Modified HNTs, and RH-Modified HNTs**	Silicon 16, 5691–5714 (2024)	14.08.2024	SCIE https://doi.org/10.1007/s12633-024-03117-2
7.	Mr.S.R. Venkataraman, & Dr.S.Vishvanathperumal	**Improved mechanical performance and swelling resistance of ethylene propylene diene monomer/styrene butadiene rubber nanocomposites through the incorporation of graphene oxide as a reinforcing filler**	Journal of Polymer Research, 2024, 31(10), 313	15.10.2024	SCIE https://doi.org/10.1007/s10965-024-04167-1
8.	Dr.S.Vishvanathperumal	**Development of halloysite nanotubes reinforced chlorinated ethylene propylene diene monomer/chlorinated acrylonitrile butadiene rubber blends.**	Journal of Polymer Research 2024, 31(6), 169	05.06.2024	SCIE https://doi.org/10.1007/s10965-024-04027-y
9.	Dr.S.Vishvanathperumal	**Study on the effect of halloysite nanotubes on the mechanical properties and swelling resistance of ethylene-propylene diene monomer (EPDM)/nitrile butadiene rubber (NBR) blend nanocomposites**	Materials Research Express 2024, 11(11), 115306	21.11.2024	SCIE https://doi.org/10.1088/2053-1591/ad9080

10.	Dr.K.Suresh	Front-line Discoveries in TiO2-Coated Piston Engines and Kapok Oil Biodiesel with EGR Implementation	Journal of Physics: Conference Series, Volume 2925, (ICMIET-2024)	27.12.2024	Scopus Conference https://doi.org/10.1088/1742-6596/2925/1/012017
11.	Dr.S.Vishvanathperumal	Mechanical and Swelling Properties of EPDM/SBR Nanocomposites Containing Resorcinol- and Hexamethylenetetramine-Modified HNTs	Polymer (Korea) 48(6), pp. 677-692	Nov 2024	SCI https://doi.org/10.7317/pk.2024.48.6.677
12.	Mr.C.Krishnamurthy	Nanoparticles influence on performance and combustion enhancement of biodiesels in Ci engines: mini review	Interactions 245, 298 (2024).	30.09.2024	Scopus https://doi.org/10.1007/s10751-024-02125-3
13.	Dr. S. Vishvanathperumal, K. N. Ramu & K.Parthasarathy	Impact of In-Situ Functionalization of Carbon Nanotubes Using Bis(Triethoxysilylpropyl) Tetrasulfide on the Properties of EPDM/SBR–CNT Composites	Journal of Inorganic and Organometallic Polymers and Material 35 4016–4035	19.11.2024	SCI https://doi.org/10.1007/s10904-024-03508-3
14.	Dr.K.Suresh	Investigation of Algae and Corn Biodiesel Blends in a Diesel Engine	YMER	Dec 2024	Scopus
15.	Dr.K.Suresh	Corrosion Studies, of Friction Stir Welded-AA5754-H111 with Mg-AZ61 Alloys by using Salt Spray Test	Advances in Additive Manufacturing Technologies – CRC Press	25.11.2024	Book Chapter https://doi.org/10.1201/9781003545774-35
16.	Dr.P.Sevvel & Mr.J.Vasanthe Roy	Optimizing FSW parameters for AZ31B-AA6082 alloys using hybrid	Surface Review and Letters	17.01.2025	SCI

		MCDM and multi-objective RSM models: A numerical decision-making approach			https://doi.org/10.1142/S0218625X25500994
17.	Dr. P. Sevvel, Mr. J. Vasanthe Roy, Mr. A. Sivaramakrishnan, & Dr. M. Arul Murugan	Multi-Objective Optimization of Parameters during Friction Stir Welding of AM50A Mg Alloy Using Genetic Algorithm and Desirability Function Approach for Maximizing Tensile Strength and Hardness	Journal of Materials Engineering and Performance (JMEP)	10.06.2025	SCI https://doi.org/10.1007/s11665-025-11516-8
18.	Dr.S. Vishvanathperumal, K. N. Ramu, J. Vasanthe Roy & K. A. V. Roossvelt Prabhu	Comparative study on the effect of carbon nanotubes (CNTs), aminosilane-functionalized CNTs, TESPT-functionalized CNTs and 1-octadecanol-functionalized CNTs on the mechanical properties and swelling resistance of EPDM/SBR nanocomposites	Journal of Polymer Research, 32, 100 (2025).	19.03.2025	SCI https://doi.org/10.1007/s10965-025-04335-x
19.	Dr. S. Vishvanathperumal & K. N. Ramu	Mechanical and Swelling Resistance Behavior of Ethylene-Propylene-Diene Monomer/Styrene-Butadiene Rubber (EPDM/SBR) Composites Reinforced with Aminosilane-Functionalized Multiwalled Carbon Nanotubes	Journal of Inorganic and Organometallic Polymers and Materials	24.03.2025	SCI https://doi.org/10.1007/s10904-025-03737-0
20.	Dr. S. Vishvanathperumal, K. N. Ramu & Mr.C.Dhanesh	Mechanical strength and swelling resistance enhancement in Ethylene-Propylene-Diene Monomer/Styrene-Butadiene rubber (EPDM/SBR)	Journal of Polymer Research	28.06.2025	SCI https://doi.org/10.1007/s10965-025-04461-6

		nanocomposites using 1-Octadecanol-Modified carbon nanotubes			
21.	Dr. S. Vishvanathperumal	Impact of halloysite nanotubes on the curing characteristics, mechanical performance, and swelling resistance of SBR/NBR nanocomposites.	Journal of Polymer Research 32, 62 (2025).	11.02.2025	SCI https://doi.org/10.1007/s10965-025-04292-5
22.	Dr. S. Vishvanathperumal	Hybrid Reinforcement of NR/EPDM Blends Using Graphene Oxide and Halloysite Nanotubes via Mechanical Blending	Journal of Inorganic and Organometallic Polymers and Materials	22.03.2025	SCI https://doi.org/10.1007/s10904-025-03702-x
23.	Dr. S. Vishvanathperumal	The impact of imidazolium ionic liquid-modified carbon nanotubes on the swelling resistance and mechanical properties of ethylene-propylene diene monomer/acrylonitrile butadiene rubber (EPDM/NBR) nanocomposites	Journal of Rubber Research	23.06.2025	SCI https://doi.org/10.1007/s42464-025-00307-4
24.	Dr. S. Vishvanathperumal	Morphology and performance of nanosilica filler filled NR/NBR rubber composites	Journal of Rubber Research	31.05.2025	SCI https://doi.org/10.1007/s42464-025-00303-8
25.	Dr. S. Vishvanathperumal	Enhanced mechanical and swelling properties of ethylene-propylene-diene monomer/acrylonitrile-butadiene rubber composites reinforced with modified graphene oxide	Colloid and Polymer Science	29.05.2025	SCI https://doi.org/10.1007/s00396-025-05443-2

26.	Dr. S. Vishvanathperumal	Polyhedral Oligomeric Silsesquioxane/Multiwalled Carbon Nanotube (MWCNT/POSS) Hybrid Filler in Ethylene-Propylene-Diene Monomer/Acrylonitrile-Butadiene Rubber (EPDM/NBR) Nanocomposites: Preparation and Properties	Journal of Inorganic and Organometallic Polymers and Materials	24.05.2025	SCI https://doi.org/10.1007/s10904-025-03866-6
27.	Dr. S. Vishvanathperumal	A comparative study on the influence of nanoclay and nanosilica on the mechanical properties of NR/SBR/NBR ternary rubber nanocomposites	Journal of Polymer Research	14.05.2025	SCI https://doi.org/10.1007/s10965-025-04411-2
28.	Dr. S. Vishvanathperumal	Effect of graphene oxide (GO) on the mechanical properties of ethylene-propylene-diene monomer/acrylonitrile butadiene rubber (EPNBR) blend composites	Journal of Polymer Research	14.04.2025	SCI https://doi.org/10.1007/s10965-025-04393-1
29.	Mr.K.Parthasarathy & Dr.S.Vishvanathperumal	Enhancing cure characteristics, mechanical properties and swelling resistance of chloroprene rubber/natural rubber composites with halloysite nanotubes	Journal of Rubber Research	22.06.2025	SCI https://doi.org/10.1007/s42464-025-00306-5
30.	Mr.C.Krishnamurthy	Enhancing mechanical and swelling resistance properties of acrylonitrile butadiene rubber by the usage of graphene oxide	Journal of Polymer Research 32, 108 (2025).	24.03.2025	SCI

					https://doi.org/10.1007/s10965-025-04340-0
31.	Mr.C.Dhanesh	Enhancing the Surface Quality and Tool Life Using Nano MQL-assisted Machining Characteristics of Aluminium Composite	Journal of Environmental Nanotechnology	30.03.2025	Scopus https://doi.org/10.13074/jent.2025.03.244106 0
32.	Dr. S. Vishvanathperumal, Mr. K. Manimaran,	Optimizing Mechanical and Transport Properties of Carboxylated Nitrile Rubber Composites	SAE Technical Paper 2024-01-5263, 2025	28.01.2025	Scopus https://doi.org/10.4271/2024-01-5263
33.	Mr.S.J.Rajarajan	Tribological and Mechanical Aspects of Polymeric Composites Reinforced Utilizing Scallop Shell, Egg Shell and Alkali-Treated Prosopis Juliflora	2024 International Conference on Smart Technologies for Sustainable Development Goals (ICSTSDG)	17.06.2025	Scopus Conference https://doi.org/10.1109/ICSTSDG61998.2024.11026422
34.	Mr.S.J.Rajarajan	Enhancing Voter Identity Verification Through Cloud Computing Enabled Biometric Authentication-Modern Voting	2024 International Conference on Smart Technologies for Sustainable Development Goals (ICSTSDG)	17.06.2025	Scopus Conference https://doi.org/10.1109/ICSTSDG61998.2024.11026670
35.	Mr.C.Dhanesh	Cloud-Driven Autonomous Drones for Dynamic Emergency Medical Response Using Convolutional Neural Networks	2024 International Conference on Smart Technologies for Sustainable	17.06.2025	Scopus Conference

			Development Goals (ICSTSDG)		https://doi.org/10.1109/ICSTSDG61998.2024.11026410
36.	Dr.M.Arulmurugan	Advancing Green Manufacturing With Sustainable Solutions for Advanced Materials	Computational Intelligence for Sustainable Manufacturing of Advanced Materials, pp. 29-52. IGI Global Scientific Publishing, 2025.	2025	Book Chapter https://doi.org/10.4018/979-8-3693-7974-5.ch002
37.	Mr.K.A.V. Roossvelt Prabhu	Next-Generation Electrochemical Oxidation Techniques for the degradation of per- and polyfluoroalkyl substances (PFAS) in Complex Soil Matrixes.	Oxidation Communications, 2025, Vol 48, Issue 1, p304	2025	Scopus