

K.S.R. COLLEGE OF ENGINEERING (Autonomous)
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DEPARTMENT OF MECHANICAL ENGINEERING

(Research and Development)

(2024-2025)

S.No.	Name of the Faculty	Title of the Paper	Name of the journal	Volume/Issue No	DOI	Page No.	Year of Publication
1.	Dr.P.Senthamaraikannan	Detailed analysis and characterisation of microcrystalline cellulose derived from Ocimumtenuiflorum leaves	Biomass Conversion and Biorefinery	--	https://doi.org/10.1007/s13399-025-06645-y	1 - 16	2025
2.	Dr.P.Murugesan	Adaptive personalised collaborative filtering based recommendation system using graph neural networks	Journal of Environmental Protection and Ecology	26, No 1, 1-1	--	190 - 199	2025
3.	Dr.P.Senthamaraikannan	Synthesis, Characterization, and Analysis of Bioplasticizers Derived from the spesiapopulnea Leaf: Towards Sustainable Biomaterials	Journal of Inorganic and Organometallic Polymers and Materials	--	https://doi.org/10.1007/s10904-025-03609-7	1 - 18	2025
4.	P.Dhiravidamani	Aluminium Alloy Nanocomposite Featured with Barium and Silicon Carbide Nanoparticles: Mechanical and Wear Studies	Mechanical and Wear Studies, Silicon	--	https://doi.org/10.1007/s12633-025-03263-1	1 - 12	2025
5.	Dr.P.Senthamaraikannan	Comprehensive glass/banana fiber characterization with zirconium carbide filler-reinforced hybrid composites for lightweight structural	Engineering Research Express	6 / 045524	https://doi.org/10.1088/2631-8695/ad8725	1 - 17	2024

		applications					
6.	Dr.P.Senthamaraikannan	Exploration of Cymbopogon nardus root fibers characteristics for sustainable lightweight composite reinforcement applications	Springer Netherlands	--	https://doi.org/10.1007/s10570-024-06160-9	--	2024
7.	Dr.P.Senthamaraikannan	Enhancing mechanical performance and water resistance of Careya-Banana fiber epoxy hybrid composites through PLA coating and alkali treatment	Journal of Materials Research and Technology	32	https://doi.org/10.1016/j.jmrt.2024.08.190	4304–4315	2024
8.	Dr.P.Senthamaraikannan	Comprehensive characterisation of raw and alkalized sugarcane bagasse fibres	Biomass Conversion and Biorefinery	--	https://doi.org/10.1007/s13399-024-06063-6	--	2024
9.	Dr.P.Senthamaraikannan	Suitability evaluation of raw and alkali-treated cannonball fibers as reinforcement in polymer composites	Waste and Biomass Valorization	15	https://doi.org/10.1007/s12649-024-02514-3	15:5125–5136	2024
10.	Dr.P.Senthamaraikannan	Modification of rice hull powder by in situ generation of silver nanoparticles for antibacterial composite filler applications	Macromolecular Research	32	https://doi.org/10.1007/s13233-024-00257-7	32:653–661	2024
11.	Dr.P.Senthamaraikannan	Extraction and characterization of microcrystalline cellulose from Vachellia nilotica plant leaves: A biomass waste to wealth approach	Physiologia plantarum	-	https://doi.org/10.1111/ppl.14368	1 - 12	2024
12.	Dr.P.Senthamaraikannan	Extraction and characterization of a potential plasticizer from Vachellia nilotica	Industrial Crops and Products	222	https://doi.org/10.1016/j.indcrop.2024.119659	1 - 11	2024

13.	Dr.P.Senthamaraikannan	Isolation and characterization of novel natural fiber from <i>Streblus asper</i>	Biomass Conversion and Biorefinery	--	https://doi.org/10.1007/s13399-024-06136-6	1 - 15	2024
14.	Dr.P.Senthamaraikannan	Physiochemical profiling of bioplasticizer derived from <i>Ficus benghalensis</i> leaves for eco-friendly applications	Industrial Crops and Products	222	https://doi.org/10.1016/j.indcrop.2024.119535	1 - 11	2024
15.	Dr.P.Senthamaraikannan	Greening the composite industry: Evaluating <i>Lantana camara</i> Verbenaceae fiber as a promising substitute for lightweight polymer matrix composites	Industrial Crops and Products	220	https://doi.org/10.1016/j.indcrop.2024.119265	1 - 12	2024
16.	Dr.P.Senthamaraikannan	Synergistic effect on the mechanical, thermal, and tribology characteristics of modified natural fibre composites with perforated waste PET	Biomass Conversion and Biorefinery	--	https://doi.org/10.1007/s13399-024-06214-9	1 - 13	2024
17.	Dr.P.Senthamaraikannan	Characterization of alkali treated and untreated <i>Abutilon indicum</i> FIBERS	Industrial Crops and Products	222/119719	https://doi.org/10.1016/j.indcrop.2024.119719	1 - 18	2024
18.	Dr.A.V.Balan	Eyewash & shower for pre treatment of chemical spillage at ETP and STP	AIP Conference Proceedings	040009	https://doi.org/10.1063/5.0212086	040009 – 1 - 5	2024
19.	Dr.A.V.Balan	Validation of Toyota stops 6 plus 2 safety practice enablers in manufacturing industry through ISM approach	AIP Conference Proceedings	040018	https://doi.org/10.1063/5.0212002	040018-1 - 10	2024
20.	Dr.A.V.Balan	Enhanced photovoltaic performance of dye sensitized solar cell based on nanocomposites of zinc oxide	Journal of ovonic Research	VOL:20/ Issue No: 1	https://doi.org/10.15251/JOR.2024.201	85 - 92	2024

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21.	Dr.A.V.Balan Dr.P.Senthamaraikannan	Synthesis, Characterization, and Analysis of Bioplasticizers Derived from The pesiapopulnea Leaf: Towards Sustainable Biomaterials	Journal of Inorganic and Organometallic Polymers and Materials	--	https://doi.org/10.1007/s10904-025-03609-7	1 - 18	2024
22.	Dr.A.V.Balan	Enhancing Solar Still Distillation Efficiency Through Integrated Solar Chimneys and Submerged Condenser Systems	Thermal Science	28/4A	https://doi.org/10.2298/TSC1230310122	3155 - 3163	2024
23.	Dr. P. Kanakarajan	Impact of magnetic, thermal, structural, morphological and optical characteristics on room temperature ferromagnetism of pristine and cerium doped ZnO nanocomposites	Digest Journal of Nanomaterials and Biostructures	19/2	https://doi.org/10.15251/DJNB.2024.192.933	933 - 940	2024
24.	Dr.M.Bhuvaneshwaran	A Hybrid Design of Experiment Approach in Analyzing the Electrical Discharge Machining Influence on Stir Cast Al7075/B4C Metal Matrix Composites	Metals	14/205	https://doi.org/10.3390/MET14020265	1 - 23	2024
25.	Mr. P. Jagadeesh	A review on natural fiber reinforced biocomposites properties and its applications	AIP Conf. Proc.	020015	https://doi.org/10.1063/5.0241757	020015-1-9	2024
26.	P.Dhiravidamani	Influence of sisal-glass fiber/SiC combinations on behaviour of hybrid epoxy composite synthesized by advanced hot	” International journal combinations of Polymer research	31/181	https://doi.org/10.1007/10965.024.0403	1 - 9	2024

		compression technique			6-X		
27.	S P Gowtham	Investigations on Solar PV for improving its efficiency through thermal management	Springer Proceedings in Materials	--	https://doi.org/10.15251//JOR.2024.201.85	350-353	2024
28.	K.Perumal	Design and implementation of energy – Efficient lighting systems in warehouse environments using dialux	Vdi-z integrierte production journal	11 / 10	--	39 - 59	2024