



Department of Mechanical Engineering

LIST OF RESEARCH PUBLICATIONS BY FACULTY- 2019

S.No	Names of the authors	Title, Year, Vol, Pages	National/International	Impact Factor, if any
1.	T.Senthil Muthu Kumar, N.Rajini, Suchart Siengchin, A.Varada Rajulu, N.Hariram, Nadir Ayrilmis.	Influence of silver nanoparticles on the mechanical, thermal and antimicrobial properties of cellulose-based hybrid nanocomposites, 2019, Vol. 165 , 516–525.	Composites Part B: Engineering	6.864
2.	Robert Keresztes, Miklos Odrobina, N.Rajini, S.Karthikeyan, Gabor Kalacska, Jacob Sukumaran.	Tribological characteristics of cast polyamide 6 (PA6G) matrix and their composite (PA6G SL) under normal and overload conditions using dynamic pin-on-plate system, 2019, Vol. 160, 119–130.	Composites Part B: Engineering	6.864
3.	T.Senthil Muthu Kumar, K.Senthil Kumar, N.Rajini, Suchart Siengchin, Nadir Ayrilmis, A.Varada Rajulu	A comprehensive review of electrospun nanofibers: Food and packaging perspective, 2019, Vol. 175, 107074.	Composites Part B: Engineering	6.864
4.	S.Vigneshwaran, M.Uthayakumar, V.Arumugaprabu	Development and sustainability of industrial waste-based red mud hybrid composites, 2019, Vol. 230, 862–868.	Journal of Cleaner Production	6.395
5.	T.Senthil Muthu Kumar, Krittirash Yorseng, N.Rajini, Suchart Siengchin, Nadir Ayrilmis, A.Varada Rajulu	Mechanical and thermal properties of Spent coffee bean filler/Poly(3-hydroxybutyrate-co-3 hydroxyvalerate) biocomposites: Effect of recycling, <i>Protection</i> , 2019, Vol. 124 , 187–195	Process Safety and Environmental	4.384
6.	K.Senthilkumar, N.Saba, M.Chandrasekar, M.Jawaid, N.Rajini, Othman Y.Alothman, SuchartSiengchin	Evaluation of mechanical and free vibration properties of the pineapple leaf fibre reinforced polyester composites, 2019, Vol. 195 , 423–431.	Construction and Building Materials	4.046
7.	V.Arumugaprabu, Tae Jo Ko, S.Thirumalai Kumaran, Rendi Kurniawan, Yein	Performance of surface-textured end-mill insert on AISI 1045 steel, 2019, Vol. 34(1), 18–29.	Materials and Manufacturing Processes	3.350

	Kwak, Zhen Yu, M.Uthayakumar			
8.	Siva Kumar, M.Adam Khan, B.Muralidharan	Processing of titanium-based human implant material using wire EDM, 2019, Vol. 34 (6), 695–700.	Materials and Manufacturing Processes	3.350
9.	K.Senthilkumar, N.Rajini, N.Saba, M.Chandrasekar, M.Jawaid, Suchart Siengchin	Effect of Alkali Treatment on Mechanical and Morphological Properties of Pineapple Leaf Fibre/Polyester Composites, 2019, Vol. 27(6), 1191–1201.	Journal of Polymers and the Environment	2.765
10.	K.Mayandi, N.Rajini, A.Alavudeen, Suchart Siengchin A.Varada Rajulu, Nadir Ayrilmis	Mechanical Property and Morphological Analysis of Polyester Composites Reinforced with <i>Cyperus pangorei</i> Fibers, 2019, Vol. 16 (1), 164–174.	Journal of Bionic Engineering	2.463
11.	M.P.Indira Devi, N.Nallamuthu, N.Rajini, T.SenthilMuthu Kumar, Suchart Siengchin A.Varada Rajulu, N.Hariram	Antimicrobial properties of poly(propylene) carbonate/Ag nanoparticle-modified tamarind seed polysaccharide with composite films, 2019, Vol. 25(7) 3461–3471	Ionics	2.289
12.	Yongbo Li, S.Bathrinath, D.Thresh Kumar, Ali Diabat	Risks assessment in thermal power plants using ISM methodology, 2019, Vol. 279(1-2), 89–113.	Annals of Operations Research	2.284
13.	M.P.Indira Devi , N.Nallamuthu , N.Rajini , T.Senthil Muthu Kumar , Suchart Siengchin , A.Varada Rajulu , Nadir Ayrilmis	Biodegradable poly(propylene) carbonate using <i>in-situ</i> generated CuNPs coated <i>Tamarindus indica</i> filler for biomedical applications, 2019, Vol. 19 , 106–113, ISSN: 2352-4928	Elsevier: Materials Today Communications	1.859
14.	K.Selvaraj, T.Panneerselvam, Suraj Baskararaj, S.Bathrinath, Ponnusamy Palanisamy, S.Govindaraj, A.Sankarganesh, S.Murugesan, Jawahar Natarajan, S.Balasubramanian, Ashish Wadhvani	Modeling a pH-sensitive Zein-co-acrylic acid hybrid hydrogel loaded 5-fluorouracil and rutin for enhanced anticancer efficacy by oral delivery, 2019, Vol. 9(185), 1–20.	3 Biotech	1.786
15.	Yashwant S Munde, Ravindra B Ingle, I Siva	A comprehensive review on the vibration and damping characteristics of	Journal of Reinforced	1.786

		vegetable fiber-reinforced composites, 2019, Vol. 38(17), 822–832.	Plastics and Composites	
16.	Yashwant S Munde, Ravindra B Ingle, I.Siva	Effect of sisal fiber loading on mechanical, morphological and thermal properties of extruded polypropylene composites, 2019, Vol. 6(8), 085307, IOP Publishing.	Materials Research Express	1.449
17.	G.Kalusuraman, I.Siva, Mustafa Aslan, S.Anandkumar, K.G.Satyanarayana	Evaluation of surface pre-treatments on the surface characteristics modifications in sponge gourd (<i>Luffa Cylindrica</i>) fibers, 2019, Vol. 6(9), 095106.	Materials Research Express	1.449
18.	T.Senthil Muthu Kumar, K.Senthilkumar, M.Chandrasekar, N.Rajini, Suchart Siengchin, Varada Rajulu	Characterization, thermal and dynamic mechanical properties of poly (propylene carbonate) lignocellulosic <i>Cocos nucifera</i> shell particulate biocomposites, 2019, vol. 6(9), 096426.	Materials Research Express	1.449
19.	D.Chellaganesh, M.Adam Khan, J.T.Winowlin Jappes	High temperature oxidation behavior of thermally sprayed alumina—titania coatings on nickel-based superalloys, 2019, Vol. 6 (8), 086521.	Materials Research Express	1.449
20.	R.Mahesh Kumar, N.Rajini, T.Senthil Muthu Kumar, K.Mayandi, Suchart Siengchin, Sikiru O Ismail	Thermal and structural characterization of acrylonitrile butadiene styrene (ABS) copolymer blended with polytetrafluoroethylene (PTFE) particulate composite, 2019, Vol. 6(8), 085330.	Materials Research Express	1.449
21.	R.Deepak Joel Johnson, V.Arumugaprabu, Yashwant S Munde	Constitutive models to predict the mechanical performance of sansevieria <i>cylindrica</i> reinforced vinyl ester composite, 2019, Vol. 6(9), 095310.	Materials Research Express	1.449
22.	K.Senthilkumar, M.Chandrasekar N.Rajini, T.Senthil Muthu Kumar, Naheed Saba, M.Jawaid, Suchart Siengchin, Nadir Ayrilmis	Effect of fibre loading and $\text{Ca}(\text{OH})_2$ treatment on thermal, mechanical, and physical properties of pineapple leaf fibre/polyester reinforced composites, 2019, Vol.6, IOP Publishing.	Materials Research Express	1.449
23.	T.Senthil Muthu Kumar, N.Rajini, Suchart Siengchin, A.VaradaRajulu, Nadir Ayrilmis	Influence of <i>Musa acuminata</i> bio-filler on the thermal, mechanical and visco-elastic behavior of poly (propylene) carbonate biocomposites, 2019, 24(5), 439–446.	International Journal of Polymer Analysis and Characterization	1.426
24.	T.Senthil Muthu Kumar, N.Rajini,	Improved mechanical and thermal properties of spent coffee bean particulate reinforced poly (propylene	Particulate Science and Technology	1.424

	Tian Huafeng, A.VaradaRajulu, Nadir Ayrilmis, Suchart Siengchin	carbonate) composites, 2019, Vol. 37(5), 639–646.		
25.	M.Uthayakumar, K.VinothBabu, S.Thirumalai Kumaran, S.Suresh Kumar, J.T.Winowlin Jappes,T.P.D.Raja n	Study on the machining of Al–SiC functionally graded metal matrix composite using die-sinking EDM, 2019, 37 (1), 103–109	Particulate Science and Technology	1.424
26.	S.Suresh Kumar, M.Uthayakumar, S.Thirumalai Kumaran, Temel Varol, Aykut Canak	Investigating the surface integrity of aluminium based composites machined by EDM, 2019, Vol. 15(3), 338–343	Defence Technology	1.261
27.	M.Adam Khan, A.Senthil Kumar, S.Thirumalai Kumaran, M.Uthayakumar, Tae Jo Ko	Effect of Tool Wear on Machining GFRP and AISI D2 Steel Using Alumina Based Ceramic Cutting Tools, 2019, Vol. 11(1), 153–158.	Silicon	1.210
28.	Alan Miguel Brum da Silva, Sandra Maria da Luz, I.Siva, J.T.Winowlin Jappes, S.C.Amico	Effect of silane treatment on the Curaua fibre/polyester interface, 2019, Vol. 48(4), 160–167	Plastics, Rubber and Composites	1.202
29.	C.Sankar, K.Gangatharan, S.Christopher Ezhil Singh, R.Krishna Sharma, K.Mayandi	Optimization on Tribological Behaviour of Milled Nano-B4C Particles Reinforced with AZ91 Alloy Through Powder Metallurgy Method, 2019, 72(5), 1255–1275	Transactions of the Indian Institute of Metals	1.176
30.	G.Kalusuraman, I.Siva, S.Anand Kumar	Theoretical and Experimental Studies on Tribological Behavior of Luffa Fiber Reinforced Polyester under the Influence of Surface Treatment, 2019, Vol. 34(1), 72–80.	International Journal of Polymer Processing	0.942
31.	R.K.A.Bhalaji, S.Bathrinath, S.G.Ponnambalam , S.Saravanasankar	A Fuzzy Decision-Making Trial and Evaluation Laboratory approach to analyse risk factors related to environmental health and safety aspects in the healthcare industry, 2019, Vol. 44(3), 55. ISSN: 0256-2499.	Sādhanā Published by the Indian Academy of Sciences (Springer)	0.769
32.	S.Saranyadevi, R.Murugeswari, S.Bathrinath	Road risk assessment using fuzzy Context-free Grammar based Association Rule Miner, 44 (6), 151, 1–14.	Sādhanā Published by the Indian Academy of Sciences	0.769

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33.	S.Ajith, C.Sivapragasam, V.Arumugaprabu	Quantification of risk and assessment of key safety factors for safe workplace in Indian building construction sites, 2019, vol. 20(5), 693–702.	Asian Journal of Civil Engineering	0.227
34.	K.Senthilkumar, I.Siva, M.Chandrasekar, N.Rajini, G.Kalusuraman, S.Karthikeyan, Bellamkonda Vishnuteja, Balam Mallikarjuna	Influence of curing temperature on the mechanical and free vibration properties of sisal fiber reinforced polyester composites, 2019, Vol. 2057, 020066, 1–6.	Advances in Polymer Composites: Mechanics, Characterization and Applications	Scopus Indexed
35.	K.Senthilkumar , N.Rajini , S.Karthikeyan , Suchart Siengchin , Krittirash Yorseng , K.Balamanikandan , , M.Harikrishnan , S.P.Ponsivaraman	Wear behaviour of the PLA and Cu ₂ O composite under different temperature, AIP Conference Proceedings 2019, Vol. 2057, 020027, 1–8	Advances in Polymer Composites: Mechanics, Characterization and Applications	Scopus Indexed
36.	R.Mahesh Kumar, N.Rajini, K.Mayandi, Nadir Ayrilmis	Friction and wear properties of PTFE blended ABS polymer composite, 2019, Vol. 2057, 020046, 1–5	Advances in Polymer Composites: Mechanics, Characterization and Applications	Scopus Indexed
37.	S.Vigneshwaran, M.Uthayakumar, V.Arumugaprabhu , A.Ramesh, K.Muthu Kumar, K.Pasupathi	Effect of chemical treatment on erosion properties of jute polyester composites, 2019, Vol. 2057, 020063, 1–6	Advances in Polymer Composites: Mechanics, Characterization and Applications	Scopus Indexed
38.	R.Deepak Joel Johnson, V.Arumugaprabu, Manapurapu Prem Kumar, Kothapalli Dheeraj	Solid particle erosion on the biochar filled hybrid vinyl ester composite, 2019, Vol. 2057, 020064, 1–5	Advances in Polymer Composites: Mechanics, Characterization and Applications	Scopus Indexed
39.	R.K.A.Bhalaji, S.Bathrinath, S.Saravanasankar	Analysis of risk factors related to patients in healthcare industry using ISM method, 2019, Vol. 2128, https://doi.org/10.1063/1.5117975	AIP Conference Proceedings	Scopus Indexed
40.	T.Premkumar,	Investigation to Appraise the Abrasive Water Jet Response of Curaua/Basalt	International Journal of Manufacturin	Scopus Indexed

	I.Siva, S.Rajesh, J.T.Winowlin Jappes, S.C.Amico	Hybrid Polyester Composites, 2019, Vol. 9(1), 13–29.	g, Materials, and Mechanical Engineering	
41.	Yashwant S Munde, Ravindra B Ingle, I Siva	Vibration damping and acoustic characteristics of sisal fibre–reinforced polypropylene composite, 2019, Vol. 50(1), 13–21.	Noise & Vibration Worldwide	Scopus Indexed
42.	K.Senthilkumar, I.Siva, M.Chandrasekar, N.Rajini, G.Kalusuraman, S.Karthikeyan, Bellamkonda Vishnuteja, Balam Mallikarjuna	Influence of curing temperature on the mechanical and free vibration properties of sisal fiber reinforced polyester composites, 2019, Vol. 2057, 020066	AIP Conference Proceedings	Scopus Indexed
43.	T.Ram Prabhu, M.Murugan, B.P.Chiranth, R.K.Mishra, N.Rajini, P.Marimuthu, P.Dinesh Babu, G.Suganya	Effects of Dual-Phase Reinforcement Particles (Fly Ash + Al ₂ O ₃) on the Wear and Tensile Properties of the AA 7075 Al Alloy Based Composites, 2019, Vol. 100(1), 29–35.	Journal of The Institution of Engineers (India): Series D	Scopus Indexed
44.	V.N.Anbazhagan, R.Edwin Raj, J.T.Winowlin Jappes	Development and characterization of novel fiber-metal-laminate (FML) using aluminium sheet and ceramic mat, 2019, Vol. 9(4), 358–364	Materials Express	Scopus Indexed
45.	M.Manoj Prabhakar, N.Rajini, K.Mayandi, K.Subash, S Subramanian, S.Vignesh Rama BalaSeelan, Nadir Ayrilmis	Impact response of basalt composite pipe using filament winding, 2019, Vol. 1240 (1), 012104	Journal of Physics: Conference Series	Scopus
46.	K.Arun Prasath, P.Amuthakkannan, V.Manikandan, R.Jegadeesan, and M.Selwin	Novel topological approach in mechanical properties of basalt/flax hybrid composites, 2019, Conference Proceedings, Vol. 2128, 020001.	AIP Conference Proceedings	Scopus Indexed
47.	S.Ajith, C.Sivapragasam, V.Arumugaprabu	Analysis on constructional hazards, risk assessment techniques and safety helmets in construction sites, 2019, Vol. 2128, 050013.	AIP Conference Proceedings	Scopus Indexed
48.	S.Ajith, C.Sivapragasam, V.Arumugaprabu	A review on hazards and their consequences in firework industries, 2019, Vol. 1(1), 120. ISSN: 2523-3971	SN Applied Sciences	ISSN: 2 523- 3971

49.	S.Bathrinath, Vadapur Sai Charan, S.G.Ponnambalam ² S.Saravanasankar,	Identification and Evaluation of Criteria of Agile Manufacturing Using DEMATEL: A Case from an Indian Metal Fabrication Industry, 2019, Vol. 2(1), 61–74	Journal of Modern Manufacturing Systems and Technology	e-ISSN: 2636-9575
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