



K.RAMAKRISHNAN COLLEGE OF ENGINEERING
(Autonomous)

SAMAYAPURAM, TIRUCHIRAPPALLI – 621 112
Approved by AICTE & Permanently Affiliated to Anna University
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DEPARTMENT OF MECHANICAL ENGINEERING
LIST OF PUBLICATIONS DURING THE ACADEMIC YEAR 2020-2021

Number of Scopus Indexed Journals : 48

Sl No	Title of the paper	Name of the Author	Title of the Journal	Volume & Issue
1	Influence of different reinforcements on properties of copper matrix composites: A review	M.Ravichandran	AIP Conference Proceedings	2283
2	Fracture Analysis of C-Stringer and Hat Stringer on the Load Carrying Vehicle	M.Ravichandran	Lecture Notes in Mechanical Engineering	15&3
3	Buckling Analysis of C-Stringer and Hat Stringer on the Load Carrying Vehicle	M.Ravichandran	Lecture Notes in Mechanical Engineering	15&3
4	Friction welding parametric optimization of AISI 310L austenitic stainless steel weld joints - Grey relational investigation	M.Ravichandran	AIP Conference Proceedings	2283& 1
5	Tungsten carbide particulate reinforced AA7050 aluminum alloy composites fabricated by liquid state	M.Ravichandran	AIP Conference Proceedings	2283& 1
6	Investigations on ultrasonic machining of tellurium copper metal matrix	M.Ravichandran	AIP Conference Proceedings	2283& 1
7	Material synthesis, characterization and machining performance of terbium metal matrix composite	M.Ravichandran	AIP Conference Proceedings	2283& 1
8	Investigations on modified vertical axis wind turbine blades	V.Santosh kumar	AIP Conference Proceedings	2283& 1
9	Experimental Investigations of Cut Quality Characteristics in Pipe Coupling and Flange Materials using Laser Machining Process	Ramakrishnan H	Turkish Journal of Physiotherapy and Rehabilitation	32 & 3
10	Experimental investigation of fibre reinforced plastics (frp) structure with coconut husk under low velocity impact	K.Chellamuthu	Materials Today: Proceedings	47&19
11	A Novel approach for the age detection using bone X-Ray images	K.Chellamuthu	Academy for Environment and Life Sciences	10&2

12	Frp Pipes With Magnesium Oxide Formedical And Naval Perspective	K.Chellamuthu	Journal of Physiotherapy and Rehabilitation	32 &3
13	Review of Bio-diesel production from waste cooking oil and analyze the IC engine performance	S. NandhaGopan	Materials Today: Proceedings	37&2
14	Investigation on mechanical properties of Al6061 alloy – Multiwall carbon nanotubes reinforced composites by powder metallurgy route	B.Prakash	Materials Today: Proceedings	37&2
15	Investigations on mechanical properties of Al6061-SiC nanocomposites fabricated via stir casting process	B.Prakash	Materials Today: Proceedings	39&1
16	Experimental investigation of heat transfer of CUO/water -mono ethylene glycol nano fluid in a counter flow heat exchangerwith twisted tape	PC Santosh kumar	Materials Today: Proceedings	21&1
17	Heat transfer analysis for different materials of ball bearing using ANSYS	P.C.Santhosh Kumar	Materials Today: Proceedings	In press
18	Wheelchair cum stretcher for patients - Design and fabrication	P. C. Santhosh Kumar	AIP Conference Proceedings	2283 &1
19	Influence of different reinforcements on properties of metal matrix composites: A review	M.Meignanamoorthy	Materials Today: Proceedings	37&2
20	Parametric Optimization of Mechanical Properties via FSWon AA5052 Using Taguchi Based Grey Relational Analysis	M.Meignanamoorthy	Incas Bulletin	13&2
21	Investigation on properties of bahunia racemosa fiber and egg shell powder reinforced polymer composite	A..Mohana Krishnan	Materials Today: Proceedings	33 &7
22	Experimental analysis of Al-Cu-Si metal matrix composite by powder-metallurgy process	N.Karthikeyan	Materials Today: Proceedings	37 &2
23	A comparative study on role of phase change materials in thermal efficiency enhancement of passive solar still	R.Naveenkumar	Materials Today: Proceedings	33 &7
24	Impact of adding various nano materials in the efficiency of single slope solar still: A review	R.Naveenkumar	Materials Today: Proceedings	33 &7
25	Review on nanofluid role & design aspects to enhance the thermal performance of the parabolic trough collector	R. Naveenkumar	AIP Conference Proceedings	2283 &1

26	Analysis of heat transfer in grooved plain carbon steel tube for solar applications	R.Naveenkumar	Materials Today: Proceedings	33 &7
27	Role of phase changing materials and other parameters to enhance the thermal performance of solar still	R.Naveenkumar	Materials Today: Proceedings	33 &7
28	Investigation of hardness characteristics of waste plastics and egg shell powder reinforced polymer composite by stirring route	G. SakthiBalan	Materials Today: Proceedings	33 &7
29	Surface roughness accuracy prediction in turning of Al7075 by adaptive neuro-fuzzy inference system	B.Veluchamy	Materials Today: Proceedings	37 &2
30	Experimental investigation on properties of dissimilar laser welding of AISI 316L to monel 400	B.Veluchamy	Materials Today: Proceedings	33 &7
31	Effect of stacking sequence on tribological properties of bamboo/jute reinforced hybrid epoxy polymer composites	JafreyDaniel James D	Materials Today: Proceedings	39 &1
32	Performance, emission analysis and optimization of biodiesel blend with CuO nano particle additive in DI diesel engine	M. Manimaran	AIP Conference Proceedings	2283 &1
33	Evaluating the Engine Emission Outcomes from a CRDI Engine Operated with Low Viscous Bio-oil Blends Under the Influence of Diethyl Ether	M. Manimaran	Lecture Notes in Mechanical Engineering	
34	Evaluation of performance and exhaust emission of C.I diesel engine fuel with palm oil biodiesel using an artificial neural network	S.Raghuvaran	Materials Today: Proceedings	37 &2
35	Varying of horse power and torque in two wheeler's by using sprockets	S.Raghuvaran	Materials Today: Proceedings	37 &2
36	Mechanical properties and applications of Magnesium alloy – Review	C.Anand chairman	Materials Today: Proceedings	27 & 2
37	Wire arc additive manufacturing perspectives and recent developments	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
38	Re-entrant Formation on Superplastic Forming Process by Mechatronics Approach in 5083 Al Alloy	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
39	Taguchi Optimization and Flame Hardening Experimental Investigation on Eglin Steel	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
40	Mechanical properties of Fly ash reinforced Aluminium matrix composites	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1

41	Mechanical performance of TiC filled chopped basalt fibre reinforced epoxy composites	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
42	Processing of MMC through conventional sintering and spark plasma sintering process: A review	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
43	Surface roughness prediction and parametric optimization of shot blasting of Al7068 using RSM	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
44	Recent developments in Polymer Matrix Composites- A review	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
45	Investigation and optimization of Superplastic forming parameter in Aluminium alloy	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
46	Investigations on Mechanical Properties of Basalt Powder filled Vinyl Ester Composites	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
47	Parametric optimization and abrasive water jet drilling on bronze metal matrix composite	C.Anand Chairman	IOP Conf. Series: Materials Science and	988&1
48	Performance of a Downstream Finned Solar Photovoltaic Thermal Air System	M. Sridharan	Journal of thermal science & Engineering	13 &4



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LIST OF PUBLICATIONS DURING THE ACADEMIC YEAR 2020-2021

Number of SCI Journals : 65

Sl.No	Title of the paper	Name of the Author	Title of the Journal	Volume & Issue
1	Investigation of Material Removal Rate and Tool Wear Rate in Spark Erosion Machining of Al-Fe-Si Alloy Composite Using Taguchi Coupled TOPSIS Approach	M.Ravichandran	Silicon	13
2	Taguchi approach and decision tree algorithm for prediction of wear rate in zinc oxide-filled AA7075 matrix composites	M.Ravichandran	Surface Topography: Metrology and Properties	9&3
3	Effect of ZrB ₂ on microstructural, mechanical and corrosion behaviour of aluminium (AA7178) alloy matrix composite prepared by	M.Ravichandran	Ceramics International	47&9
4	Modified friction stir clinching of AA6061-T6/AA5754-O joint: effect of tool rotational speed and solution heat treatment on mechanical, microstructure, and fracture	M.Ravichandran	Materials Characterization	173
5	Modified Friction Stir Clinching of AA5754-O to AA6061-T6: The role of shoulder feature on the metallurgical and mechanical properties	M.Ravichandran	Vacuum	187
6	Optimization of tribo-mechanical properties of boron carbide reinforced magnesium metal matrix composite	M.Ravichandran	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering	doi.org/10.1177/13506501211030070
7	Weldability and mechanical properties of AA5083-H112 aluminum alloy and pure copper dissimilar friction spot extrusion welding joints	M.Ravichandran	Vacuum	187
8	Dieless friction stir extrusion-brazing (DFSE-B) of AA2024-T3 aluminum alloy to copper with Zn interlayer	M.Ravichandran	Results in Physics	24

9	Comprehensive review on various parameters that influence the performance of parabolic trough collector	M.Ravichandran	Environmental Science and Pollution	28
10	Synthesis and electrochemical behaviour of TiC- and B4C-reinforced Al-based metal matrix composite	M.Ravichandran	Emerging Materials Research	10& 1
11	Experimental analysis of solar concrete collector for residential buildings	M.Ravichandran	International Journal of Green Energy	18&6
12	Microstructure and Mechanical properties of friction stir welded SiC/TiB2 reinforced aluminum hybrid composites	M.Ravichandran	Silicon	doi.org/10.1007/s12633-021-01114-3
13	Novel approach to handling microfiber-rich dye effluent for sustainable water conservation	M.Ravichandran	Advances in Civil Engineering	2021
14	Weldability investigation and optimization of process variables for TIG-welded aluminium alloy (AA 8006)	M.Ravichandran	Advances in Materials Science and	2021
15	Diffusion brazing of 321 stainless steel to IN738 using 54Ag-40Cu-5.0 Zn-1.0 Ni powder-mixture interlayer	M.Ravichandran	Materials Letters	297&15
16	Graphene for Thermal Storage Applications: Characterization, Simulation and Modelling	M.Ravichandran	Journal of Electronic Materials	50
17	Influence of material positioning during modified friction stir clinching brazing of Al/Zn/Cu welds	M.Ravichandran	Materials Letters	301&15
18	Investigation of Ku band microwave absorption of three-layer BaFe12O19, carbon-fiber@ Fe3O4, and graphene@ BaFe12O19@	M.Ravichandran	Journal of Alloys and Compounds	884&5
19	A Study on Performance and Emission Characteristics of Diesel Engine Using Ricinus Communis (Castor Oil) Ethyl Esters	M.Ravichandran	Energies	14&14
20	Optimization of Process Parameters in CNC Turning of Aluminum 7075 Alloy Using L27 Array-Based Taguchi Method	M.Ravichandran	Materials	14&16
21	Development of Mathematical Model for Predicting the Electric Erosion Behavior of TiO2 Filled Al-Zn-Mg-Cu (AA7075) Alloy	M.Ravichandran	Journal of Advanced Manufacturing	20&1
22	Minimization of nanoparticle deposition rate in a square duct with a 90° bend using taguchi technique	M.Ravichandran	Applied Nanoscience	11&6
23	Mechanical and microstructural characterization of friction stir welded SiC and B4C reinforced aluminium alloy AA6061	M.Ravichandran	Materials	14&11

24	Investigations on non-biodegradable zirconium dioxide reinforced aluminium alloy (AA6081) matrix composite developed by using powder	M.Ravichandran	Digest Journal of Nanomaterials	16&3
25	Effect of titanium diboride ceramic particles on mechanical and wear behaviour of Cu-10 wt% W alloy composites processed by P/M route	M.Ravichandran	Vacuum	184
26	Variation of electrode materials and parameters in the EDM of an AA7075-TiO ₂ composite	M.Ravichandran	Materials Testing	63&2
27	Experimental Investigations on the Mechanical Properties, Microstructure and Corrosion Effect of Cu-20Al-4Ni/SiC Composites Synthesized Using Powder metallurgy Route	M.Ravichandran	Silicon	doi.org/10.1007/s12633-021-01363-2
28	Additive manufacturing of biopolymers for tissue engineering and regenerative medicine: an overview, potential applications,	M.Ravichandran	International Journal of Polymer	2021
29	Sustainable development of carbon nanocomposites: synthesis and classification for environmental remediation	M.Ravichandran	Journal of Nanomaterials	2021
30	Advancement of steam generation process in water tube boiler using Taguchi design of experiments	M.Ravichandran	Case Studies in Thermal Engineering	27
31	Analysis of wear parameters for AA6063-TiC composites using Taguchi technique	M.Ravichandran	Emerging Materials Research	9&3
32	Optimization of powder metallurgy parameters of TiC- and B ₄ C-reinforced aluminium composites by Taguchi method	M.Ravichandran	Transactions of the Canadian Society for	45&2
33	Microstructural and tribological characteristics of AA6351/Si ₃ N ₄ composites manufactured by stir casting	M.Ravichandran	Journal of Materials Research and	9&6
34	Characterization and Properties of Mg-TiO ₂ Composites Produced via Ball Milling and Powder Metallurgy	M.Ravichandran	Metallofizika i Novešie Tekhnologi	42 &4
35	Multi-objective optimisation of dry sliding wear control parameters for stir casted AA7075- TiO ₂ composites using Taguchi-Grey relational approach	M.Ravichandran	Australian Journal of Mechanical Engineering	https://doi.org/10.1002/jme.25865
36	Applicability of cellulosic based Polyalthia longifolia seed filler reinforced vinyl ester biocomposites on tribological performance	M.Ravichandran	Polymer Composites	42&2
37	Evaluation of mechanical and thermal properties of jute and ramie reinforced epoxy-based hybrid composites	M.Ravichandran	Journal of Natural Fibers	https://doi.org/10.1080/15440478.2021.19584

38	Study on Compaction and machinability of silicon nitride (Si ₃ N ₄) reinforced copper alloy composite through P/M route	M.Ravichandran	International Journal of Polymer	2021
39	Analysis of surface roughness of rock dust reinforced AA6061-Mg matrix composite in turning	M.Ravichandran	Journal of Magnesium and Alloy	9&5
40	Application of r-GO-MMT hybrid nanofillers for improving strength and flame retardancy of epoxy/glass fibre composites	M.Ravichandran	Advances in Polymer Technology	2021
41	Experimental Investigations on Microstructure, Properties and Workability Behavior of Zinc Oxide Reinforced Al-Si-Mg Matrix	M.Ravichandran	Silicon	14
42	Optimization of parameters to improve the properties of AA7178/Si ₃ N ₄ composites employing taguchi approach	M.Ravichandran	Silicon	14
43	Diffusion brazing of Inconel 617 and 321 stainless steel by using AMS 4772 Ag interlayer	M.Ravichandran	Journal of Manufacturing Processes	61
44	Effect of MoO ₃ ceramic oxide reinforcement particulates on the microstructure and corrosion behaviour of Al alloy composites	M.Ravichandran	Materials today communications	25
45	Evaluation of mechanical, thermal and water absorption behaviors of Polyalthia longifolia seed reinforced vinyl ester composites	M.Ravichandran	Carbohydrate Polymers	248&15
46	Characterization and Properties of Silicon Carbide Reinforced Ni-10Co-5Cr (Superalloy) Matrix Composite Produced Via Powder Metallurgy Route	M.Ravichandran	Silicon	13
47	Experimental investigations to improve the electrical efficiency of photovoltaic modules using different convection mode	P.C.Santhosh Kumar	Sustainable Energy Technologies	48
48	Short review on various applications of fuzzy logic-based expert systems in the field of solar energy	M.Sridharan	International Journal of Ambient Energy	https://doi.org/10.1080/014307502021.1927839
49	Performance optimization of counter flow double pipe heat exchanger using grey relational analysis	M.Sridharan	International Journal of Ambient Energy	https://doi.org/10.1080/01430750.2021.1946148
50	Application of Mamdani fuzzy inference system in predicting the thermal performance of solar distillation still	M.Sridharan	Journal of Ambient Intelligence and Humanized	12

51	Generalized Regression Neural Network Model Based Estimation of Global Solar Energy Using Meteorological Parameters	M.Sridharan	Annals of Data Science	DOI :10.1007/S40745-020-00319-4
52	Influence of Chemical Treatment on the Physico-mechanical Characteristics of Natural Fibers Extracted from the Barks of Vachellia Farnesiana	JafreyDaniel James D	Journal of Natural Fibers	https://doi.org/10.1080/15440478.2021.1875353
53	Improvement on the machinability characteristics of AA6061-T6/15 wt.% SiC composites by Response Surface methodology	JafreyDaniel James D	Surface Topography: Metrology and	9&3
54	Investigation on electric erosion behavior of nickel-based super alloy (Waspaloy: Ni, Cr, Co, Mo, Ti, Al) using response surface methodology	Dr.D.Srinivasan	Surface Topography: Metrology and Properties	9&3
55	Mechanical and Abrasive Wear Performance of Titanium Di-Oxide Filled Woven Glass Fibre Reinforced Polymer Composites by Using Taguchi and EDAS Approach	Dr.C.Anand Chairman	Materials	14&18
56	Experimental investigation of process parameters for pack boronizing of SS410 using anova and machine learning approaches	H Ramakrishnan	Surface Topography: Metrology and	9&2
57	Surface modification method of duplex type stainless steels by the pack boriding process	H Ramakrishnan	Engineering of Materials - Metal materials	75&3
58	Microstructure, Mechanical Properties, and Corrosion Behavior of Boron Carbide Reinforced Aluminum Alloy (Al-Fe-Si-Zn-Cu)	M.Meignanamoorthy	materials	14&15
59	Investigations on Microstructure, Mechanical, Thermal, and Tribological Behavior of Cu-MWCNT Composites Processed by Powder	M.Meignanamoorthy	Journal of Nanomaterials	2021
60	A hybrid approach for prediction of machining performances of glass fiber reinforced plastic (Epoxy) composites	M.Meignanamoorthy	Surface Topography: Metrology and	9&3
61	Effect of Silicon Carbide on Microstructural, Mechanical and Corrosion Behavior of Electrolytic Copper Matrix Composite Produced by the Powder Metallurgy Route	M.Meignanamoorthy	Silicon	doi.org/10.1007/s12633-021-01369-w
62	Investigations on properties and tribological behavior of AlMg4.5Mn0.7(AA5083)-MoO3 composites prepared by stir casting method	M.Meignanamoorthy	Surface Topography: Metrology and	9&2

63	Experimental Investigation and Analysis of Properties and Dry Sliding Wear Behavior of Al -Fe-Si Alloy Matrix Composites	M.Meignanamoorthy	Silicon	13
64	effect of machining parameters on surface roughness for aluminium matrix composite by using taguchi method with decision tree	M.Meignanamoorthy	Surface Review and Letters	28&4
65	Comprehensive review on various parameters that influence the performance of parabolic trough collector	R.Naveenkumar	Environmental Science and Pollution Research	28