Vaira Vignesh Ramalingam

List of Publications by Citations

73 papers	514 citations	13 h-index	19 g-index
80 ext. papers	716 ext. citations	1.4 avg, IF	4.91 L-index

#	Paper	IF	Citations
73	Research and Development in Magnesium Alloys for Industrial and Biomedical Applications: A Review. *Metals and Materials International*, **2020**, 26, 409-430	2.4	68
72	Modelling Corrosion Behavior of Friction Stir Processed Aluminium Alloy 5083 Using Polynomial: Radial Basis Function. *Transactions of the Indian Institute of Metals*, **2017**, 70, 2575-2589	1.2	31
71	Dissimilar modified friction stir clinching of AA2024-AA6061 aluminum alloys: Effects of materials positioning. *Journal of Materials Research and Technology*, **2020**, 9, 6037-6047	5.5	30
70	Modified friction stir clinching of 2024-T3 to 6061-T6 aluminium alloy: Effect of dwell time and precipitation-hardening heat treatment. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 791, 139734	5.3	29
69	Influence of FSP on the microstructure, microhardness, intergranular corrosion susceptibility and wear resistance of AA5083 alloy. *Tribology - Materials, Surfaces and Interfaces*, **2018**, 12, 157-169	1.4	25
68	Development and characterization of dissimilar joint between AA2024-T3 and AA6061-T6 by modified friction stir clinching process. *Vacuum*, **2020**, 176, 109298	3.7	24
67	Numerical modelling of thermal phenomenon in friction stir welding of aluminum plates. *IOP Conference Series: Materials Science and Engineering*, **2016**, 149, 012208	0.4	22
66	Investigations on the surface topography, corrosion behavior, and biocompatibility of friction stir processed magnesium alloy AZ91D. *Surface Topography: Metrology and Properties*, **2019**, 7, 025020	1.5	19
65	Effect of shoulder features during friction spot extrusion welding of 2024-T3 to 6061-T6 aluminium alloys. *Archives of Civil and Mechanical Engineering*, **2020**, 20, 1	3.4	14
64	Forecasting Tribological Properties of Wrought AZ91D Magnesium Alloy Using Soft Computing Model. *Russian Journal of Non-Ferrous Metals*, **2018**, 59, 135-141	0.8	14
63	Investigations on the corrosion behaviour and biocompatibility of magnesium alloy surface composites AZ91D-ZrO2 fabricated by friction stir processing. *Transactions of the Institute of Metal Finishing*, **2019**, 97, 261-270	1.3	13
62	Effect of friction stir welding process parameters on the tensile strength of dissimilar aluminum alloy AA2024-T3 and AA7075-T6 joints. *Materialwissenschaft Und Werkstofftechnik*, **2020**, 51, 17-27	0.9	13
61	Influence of friction stir processing parameters on the wear resistance of aluminium alloy AA5083. *Materials Today: Proceedings*, **2018**, 5, 7437-7446	1.4	13
60	Mechanical properties and corrosion behaviour of AZ91D-HAP surface composites fabricated by friction stir processing. *Materials Research Express*, **2019**, 6, 085401	1.7	12
59	Synthesis and Characterization of Magnesium Alloy Surface Composite (AZ91D - SiO2) by Friction Stir Processing for Bioimplants. *Silicon*, **2020**, 12, 1085-1102	2.4	12
58	Modelling of peak temperature during friction stir processing of magnesium alloy AZ91. *IOP Conference Series: Materials Science and Engineering*, **2018**, 310, 012019	0.4	10
57	Effect of Heat Treatment on the Microstructure and Mechanical Properties of the Friction Stir Processed AZ91D Magnesium Alloy. *Metal Science and Heat Treatment*, **2019**, 61, 311-317	0.6	10

56	Investigations on the tribological behavior of functionally gradient iron-based brake pad material. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2020**, 234, 2474-2486	1.3	8
55	Improvement of mechanical and wear behavior by the development of a new tool for the friction stir processing of Mg/B4C composite. *Surface and Coatings Technology*, **2021**, 426, 127797	4.4	8
54	Analysing the strength of friction stir spot welded joints of aluminium alloy by fuzzy logic. *IOP Conference Series: Materials Science and Engineering*, **2016**, 149, 012136	0.4	7
53	Comparison of Statistical and Soft Computing Models for Predicting Hardness and Wear Rate of Cu-Ni-Sn Alloy. *Advances in Intelligent Systems and Computing*, **2018**, 559-571	0.4	6
52	Effect of heat treatment on the mechanical and wear behavior of friction stir processed AA5052 alloy. *Materials Today: Proceedings*, **2020**, 22, 3340-3346	1.4	6
51	Study on the corrosion and wear characteristics of magnesium alloy AZ91D in simulated body fluids. *Bulletin of Materials Science*, **2020**, 43, 1	1.7	6
50	Effect of friction stir processing and heat treatment on the corrosion properties of AZ31 alloy. *Australian Journal of Mechanical Engineering*, **2020**, 1-10	1	6
49	Microstructure, hardness and corrosion behaviour of friction-stir processed AA5083. *Anti-Corrosion Methods and Materials*, **2019**, 66, 791-801	0.8	6
48	Optimizing the tensile strength of friction stir welded dissimilar aluminium alloy joints using particle swarm optimization. *Materials Today: Proceedings*, **2018**, 5, 24820-24826	1.4	6
47	Predicting the Wear Rate of Aluminum Alloy AA2024-T351 using Hybrid Linear function and Radial Basis Function. *IOP Conference Series: Materials Science and Engineering*, **2019**, 561, 012046	0.4	5
46	Development of fly ash based friction material for wind turbines by liquid phase sintering technology. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2021**, 235, 1463-1469	1.4	5
45	Intergranular corrosion susceptibility of friction stir processed aluminium alloy 5083. *Materials Today: Proceedings*, **2018**, 5, 16443-16452	1.4	5
44	A comparative study on weld characteristics of AA5083-H112 to AA6061-T6 sheets produced by MFSC and FSSW processes. *Vacuum*, **2021**, 190, 110298	3.7	5
43	Modelling tensile strength of friction stir welded aluminium alloy 1100 using fuzzy logic **2017**,		4
42	Effect of composition and aging time on hardness and wear behavior of Cu-Ni-Sn spinodal alloy. *Journal of Central South University*, **2019**, 26, 2634-2642	2.1	4
41	The feasibility of friction stir spot extrusion-brazing of AA5083-H112 aluminum alloy to brass sheets with Zn interlayer. *Materials Letters*, **2022**, 308, 131084	3.3	4
40	Investigation on the microstructure, microhardness, and tribological behavior of AA1100-hBN surface composite. *Koroze A Ochrana Materialu*, **2021**, 65, 1-11	0.3	4
39	Manufacturing of continuous fiber reinforced sintered brake pad and friction material. *Materials Today: Proceedings*, **2021**, 46, 4493-4496	1.4	4

38	Artificial neural network model for predicting the tensile strength of friction stir welded aluminium alloy AA1100. *Materials Today: Proceedings*, **2018**, 5, 16716-16723	1.4	4
37	Soft computing model for analysing the effect of friction stir processing parameters on the intergranular corrosion susceptibility of aluminium alloy AA5083. *Koroze A Ochrana Materialu*, **2018**, 62, 97-107	0.3	4
36	Effect of Nd:YAG Pulsed-Laser Welding Parameters on Melting Rate of GTD-111 Superalloy Joint. *Journal of Materials Engineering and Performance*,1	1.6	4
35	Tribological performance of heavy-duty functionally gradient friction material (Cu-Sn-Fe-Cg-SiC-Al2O3) synthesized by PM route **2019**,		3
34	Investigations on the Creep Behavior of Friction-Stir-Processed Magnesium Alloy AE42. *Journal of Materials Engineering and Performance*, **2020**, 29, 3172-3182	1.6	3
33	Friction Welding of Cast Iron and Phosphor Bronze. *Journal of the Institution of Engineers (India): Series C*, **2020**, 101, 347-354	0.9	3
32	Influence of tool traverse speed on microstructure and mechanical properties of CuNi/B4C surface composites. *Transactions of the Institute of Metal Finishing*, **2021**, 99, 38-45	1.3	3
31	Analysing the strength of friction stir welded dissimilar aluminium alloys using Sugeno Fuzzy model. *IOP Conference Series: Materials Science and Engineering*, **2018**, 310, 012043	0.4	3
30	Study of the effect of parameters in friction surfacing of Monel over Mild Steel using linear radial basis function model. *Materials Today: Proceedings*, **2018**, 5, 8604-8611	1.4	3
29	Development and characterization of aluminum matrix composite reinforced with continuous stainless-steel fibers. *Materials Today: Proceedings*, **2021**, 45, 7816-7821	1.4	3
28	Tribological Properties of B4C Nano Particulates Reinforced Copper Matrix Nanocomposites. *Materials Today: Proceedings*, **2019**, 16, 584-591	1.4	2
27	Analysing the influence of FSP process parameters on IGC susceptibility of AA5083 using Sugeno Fuzzy model. *IOP Conference Series: Materials Science and Engineering*, **2018**, 310, 012045	0.4	2
26	Comparison of ANN Training Algorithms for Predicting the Tensile Strength of Friction Stir Welded Aluminium Alloy AA1100. *International Journal of Vehicle Structures and Systems*, **2018**, 10,	2.1	2
25	Impact of laser surface texturing (LST) on the tribological characteristics of piston rings and cylinder liners a review. Part 1: development of LST technology. *Transactions of the Institute of Metal Finishing*, **2021**, 99, 231-237	1.3	2
24	Investigations on the mechanical properties of MWCNT reinforced ASTM A48 by testing & mathematical modelling **2016**,		2
23	Design, fabrication, and analysis of cost effective steel honeycomb structures. *Materials Today: Proceedings*, **2021**, 46, 4520-4526	1.4	2
22	Soft computing model for predicting the wear resistance of friction stir processed aluminum alloy AA5083. *Materials Today: Proceedings*, **2021**, 46, 7236-7243	1.4	2
21	Friction surfacing mild-steel with Monel and predicting the coating parameters using fuzzy logic. *Materials Today: Proceedings*, **2018**, 5, 16402-16410	1.4	2

20	Effect of Fe particles on the microstructural evolution and mechanical properties of friction welded Al-Cu components. *Australian Journal of Mechanical Engineering*, **2020**, 1-11	1	1
19	Corrosion protection of magnesium alloys in simulated body fluids using nanophase Al2O3 **2020**, 21-45		1
18	Finite element modelling of thermal history during friction stir processing of AA5052. *Materials Today: Proceedings*, **2021**, 46, 7452-7458	1.4	1
17	Investigations on the Mechanical and Tribological Performance of Nickel Aluminum Bronze- CaCO3 Composite. *IOP Conference Series: Materials Science and Engineering*, **2021**, 1059, 012059	0.4	1
16	Fabrication of fly-ash based tiles using liquid phase sintering technology. *Materials Today: Proceedings*, **2021**, 46, 7224-7229	1.4	1
15	Artificial neural network models for predicting the corrosion behavior of friction stir processed AA5083. *Materials Today: Proceedings*, **2021**, 46, 7215-7219	1.4	1
14	Investigations on the Tribological Properties of Heat-Treated Copper Composite Using Hybrid Quadratic Radial Basis Function Model. *Transactions of the Indian Institute of Metals*, **2019**, 72, 3117-3128	1.2	0
13	Metallurgical Characterization and Mechanical Properties of Solid–Liquid Compound Casting of Aluminum Alloy: Steel Bimetallic Materials. *Metals and Materials International*,1	2.4	0
12	Impact of laser surface texturing (LST) on the tribological characteristics of piston rings and cylinder liners – a review. Part 2: application of the process. *Transactions of the Institute of Metal Finishing*,1-9	1.3	0
11	Enhanced mechanical and tribological properties of AA6061/CeO2 composite fabricated by friction stir processing. *Materials Letters*, **2022**, 132210	3.3	0
10	Investigations on the Effect of Cyclic Heat Treatment on the Mechanical Properties of Friction Stir Welded Aluminum Alloys (AA5052 & AA6061). *Russian Journal of Non-Ferrous Metals*, **2021**, 62, 692-707	0.8	
9	Characterization of AZ31-NbC surface composite fabricated by friction stir processing. *Koroze A Ochrana Materialu*, **2020**, 64, 29-37	0.3	
8	Experimental Study on Laser Welding of AISI 304 Steel with Design of Experiments Approach. *IOP Conference Series: Materials Science and Engineering*,577, 012117	0.4	
7	Parametric Study on the Spring-Back Effect in AA5052 Alloy in the Course of Three-Point Roll Bending Process. *Acta Mechanica Et Automatica*, **2020**, 14, 128-134	0.7	
6	Optimizing the Conveyor Belt Speed of a Bright Annealing Furnace. *Lecture Notes in Mechanical Engineering*, **2021**, 13-20	0.4	
5	Effect of load, sliding distance and sliding velocity on the wear properties of aluminum alloy AA5052. *IOP Conference Series: Materials Science and Engineering*, **2019**, 577, 012016	0.4	
4	Simulation of Friction Stir Welding of Aluminium Alloy AA5052 – Tailor Welded Blanks. *Advances in Intelligent Systems and Computing*, **2020**, 113-122	0.4	
3	Elimination of casting defects induced by cold box cores. *Materials Today: Proceedings*, **2021**, 46, 5022-5026	1.4	

2	Vacuum brazing of mild steel using eutectic CuSil brazing alloy. *Materials Today: Proceedings*, **2021**, 46, 4919-4924	1.4
1	Nanoarchitectonics of AA7075-NbC Surface Composites for Augmenting the Mechanical and Tribological Properties. *Journal of Bio- and Tribo-Corrosion*, **2022**, 8, 1	2.9