

# Sathiya Paulraj

## List of Publications by Year in descending order

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72  
papers

1,297  
citations

394421

19  
h-index

414414

32  
g-index

72  
all docs

72  
docs citations

72  
times ranked

1002  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization of laser welding process parameters for super austenitic stainless steel using artificial neural networks and genetic algorithm. <i>Materials &amp; Design</i> , 2012, 36, 490-498.	5.1	106
2	Simulation and parameter optimization of flux cored arc welding using artificial neural network and particle swarm optimization algorithm. <i>Journal of Intelligent Manufacturing</i> , 2014, 25, 67-76.	7.3	88
3	Effect of shielding gases on mechanical and metallurgical properties of duplex stainless-steel welds. <i>Journal of Materials Science</i> , 2009, 44, 114-121.	3.7	83
4	Effect of shielding gases on microstructure and mechanical properties of super austenitic stainless steel by hybrid welding. <i>Materials &amp; Design</i> , 2012, 33, 203-212.	5.1	62
5	Parameter optimization of friction stir welding of cryorolled AA2219 alloy using artificial neural network modeling with genetic algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 94, 3117-3129.	3.0	61
6	The impact of heat input on the strength, toughness, microhardness, microstructure and corrosion aspects of friction welded duplex stainless steel joints. <i>Journal of Manufacturing Processes</i> , 2015, 18, 92-106.	5.9	57
7	Multi-response optimization of process parameters for TIG welding of Incoloy 800HT by Taguchi grey relational analysis. <i>Engineering Science and Technology, an International Journal</i> , 2016, 19, 811-817.	3.2	43
8	Experimental Investigation of the A-TIG Welding Process of Incoloy 800H. <i>Materials and Manufacturing Processes</i> , 2015, 30, 1154-1159.	4.7	41
9	Artificial neural network modeling studies to predict the friction welding process parameters of Incoloy 800H joints. <i>Engineering Science and Technology, an International Journal</i> , 2015, 18, 394-407.	3.2	34
10	A Review of Similar and Dissimilar Micro-joining of Nitinol. <i>Jom</i> , 2016, 68, 1227-1245.	1.9	31
11	Application of GRA and TOPSIS Optimization Techniques in GTA Welding of 15CDV6 Aerospace Material. <i>Transactions of the Indian Institute of Metals</i> , 2018, 71, 373-382.	1.5	31
12	Cold metal arc transfer (CMT) metal deposition of Inconel 625 superalloy on 316L austenitic stainless steel: microstructural evaluation, corrosion and wear resistance properties. <i>Materials Research Express</i> , 2019, 6, 066516.	1.6	30
13	Shielding gas effects on flux cored arc welding of AISI 316L (N) austenitic stainless steel joints. <i>Materials &amp; Design</i> , 2013, 45, 43-51.	5.1	29
14	Influence of shielding gas mixtures on bead profile and microstructural characteristics of super austenitic stainless steel weldments by laser welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2011, 54, 525-535.	3.0	25
15	Shielding gas effect on weld characteristics in arc-augmented laser welding process of super austenitic stainless steel. <i>Optics and Laser Technology</i> , 2013, 45, 46-55.	4.6	25
16	Multi-objective Optimization of Continuous Drive Friction Welding Process Parameters Using Response Surface Methodology with Intelligent Optimization Algorithm. <i>Journal of Iron and Steel Research International</i> , 2015, 22, 954-960.	2.8	25
17	Optimization for friction welding parameters with multiple performance characteristics. <i>International Journal of Mechanics and Materials in Design</i> , 2007, 3, 309-318.	3.0	24
18	Prediction and optimization of friction welding parameters for super duplex stainless steel (UNS) Tj ETQq0 0 0 rgBT, /Overlock, 10 Tf 50 6	5.1	22

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19	Effects of post weld heat treatment on friction welded duplex stainless steel joints. Journal of Manufacturing Processes, 2016, 21, 196-200.	5.9	22
20	Application of Artificial Neural Network Modelling for Optimization of Yb: YAG Laser Welding of Nitinol. Transactions of the Indian Institute of Metals, 2017, 70, 1763-1771.	1.5	20
21	Genetic algorithm based optimization of the process parameters for gas metal arc welding of AISI 904 L stainless steel. Journal of Mechanical Science and Technology, 2013, 27, 2457-2465.	1.5	19
22	Finite element modelling and characterization of friction welding on UNS S31803 duplex stainless steel joints. Engineering Science and Technology, an International Journal, 2015, 18, 704-712.	3.2	19
23	A Study on the Effect of Different Activating Flux on A-TIG Welding Process of Incoloy 800H. Advances in Materials Science, 2016, 16, 26-37.	1.0	18
24	Structure-Property relationships of Inconel 625 Cladding on AISI 316L substrate produced by Hot Wire (HW) TIG metal deposition technique. Materials Research Express, 2019, 6, 106539.	1.6	18
25	Investigation of the fatigue behaviour of butt-welded joints treated by ultrasonic peening process and compared with fatigue life assessment standards. International Journal of Advanced Manufacturing Technology, 2009, 40, 74-83.	3.0	17
26	Multiobjective optimization of friction welding of UNS S32205 duplex stainless steel. Defence Technology, 2015, 11, 157-165.	4.2	17
27	Optimization of welding parameters for laser bead-on-plate welding using Taguchi method. Production Engineering, 2010, 4, 465-476.	2.3	16
28	Comparative study on transverse shrinkage, mechanical and metallurgical properties of AA2219 aluminium weld joints prepared by gas tungsten arc and gas metal arc welding processes. Defence Technology, 2015, 11, 262-268.	4.2	15
29	Parameters Optimization for End Milling of Al7075-ZrO <sub>2</sub> -C Metal Matrix Composites Using GRA and ANOVA. Transactions of the Indian Institute of Metals, 2020, 73, 2931-2946.	1.5	15
30	Dissimilar Cladding of Ni-Cr-Mo Superalloy over 316L Austenitic Stainless Steel: Morphologies and Mechanical Properties. Metals and Materials International, 2021, 27, 1155-1172.	3.4	15
31	Optimization of laser butt welding parameters based on the orthogonal array with fuzzy logic and desirability approach. Structural and Multidisciplinary Optimization, 2011, 44, 499-515.	3.5	13
32	Metallurgical characterizations and mechanical properties on friction welding of Incoloy 800H joints. Journal of Materials Research, 2016, 31, 2173-2185.	2.6	13
33	Influences of metastable $\gamma_3$ , $\gamma_2$ and stable $\gamma_1$ intermetallics formed during cryorolling and friction stir welding process on AA2219. Journal of Alloys and Compounds, 2018, 732, 624-629.	5.5	13
34	Influence of Filler Wire Diameter on Mechanical and Corrosion Properties of AA5083-H111 Al-Mg Alloy Sheets Welded Using an AC Square Wave GTAW Process. Transactions of the Indian Institute of Metals, 2018, 71, 1975-1983.	1.5	13
35	A Comparative Study of Artificial Neural Network and Response Surface Methodology for Optimization of Friction Welding of Incoloy 800 H. Acta Metallurgica Sinica (English Letters), 2015, 28, 892-902.	2.9	12
36	Multi-Response Optimization of Process Parameters for MIG Welding of AA2219-T87 by Taguchi Grey Relational Analysis. Materials Today: Proceedings, 2017, 4, 8892-8900.	1.8	12

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37	Application of Genetic Algorithm Optimization Technique in TIG Welding of 15CDV6 Aerospace Steel. Silicon, 2019, 11, 459-469.	3.3	12
38	Process Parameter Optimization of AISI 316L(N) Weld Joints Produced using Flux-Cored Arc Welding Process. Transactions of the Indian Institute of Metals, 2013, 66, 123-132.	1.5	11
39	Experimental Investigation on Friction Welding of UNS S32205 Duplex Stainless Steel. Acta Metallurgica Sinica (English Letters), 2014, 27, 995-1007.	2.9	11
40	Effect of Heat Input on Mechanical and Metallurgical Properties of Gas Tungsten Arc Welded Lean Super Martensitic Stainless Steel. Materials Research, 2016, 19, 572-579.	1.3	11
41	Optimization of process parameters of friction welding of UNS S31803 duplex stainless steels joints. Advances in Manufacturing, 2016, 4, 55-65.	6.1	10
42	Experimental study on the effect of silver, nickel and chromium interlayers and upset pressure in joining SS304L-AA6063 alloys through direct drive friction welding process. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	10
43	Parameter Design And Analysis In Laser Welding Of NiTiInol Shape Memory Alloy. Materials Today: Proceedings, 2017, 4, 8883-8891.	1.8	9
44	Mechanical and Metallurgical Characterization of Laser Welding on P91 Ferritic Steel and Incoloy 800HT Dissimilar Joints. Materials Research, 2018, 21, .	1.3	9
45	Characterization of microstructure, toughness, and chemical composition of friction-welded joints of UNS S32205 duplex stainless steel. Friction, 2014, 2, 82-91.	6.4	8
46	EXPERIMENTAL INVESTIGATION ON FRICTION STIR WELDING OF CRYOROLLED AA2219 ALUMINUM ALLOY JOINTS. Surface Review and Letters, 2017, 24, 1750001.	1.1	8
47	Influence of melting current pulse duration on microstructural features and mechanical properties of AA5083 alloy weldments. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 167-178.	5.6	8
48	Metallurgical Aspects and Optimisation of Yb: YAG Laser Welded NiTiInol Shape Memory Alloy. Materials Today: Proceedings, 2017, 4, 1268-1276.	1.8	7
49	Mechanical properties characterisation of dissimilar joint of high-temperature materials using Thermo-Calc Classic (TCC) diagram analysis. Materials at High Temperatures, 2019, 36, 195-211.	1.0	7
50	A comparison of the effect of different heat treatment processes on laser-welded NiTiInol sheets. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	1.6	6
51	The effect of ligament size on the thermal fatigue life of 9Cr 1Mo steel boiler header under cold, warm and hot starts. Engineering Failure Analysis, 2019, 97, 727-739.	4.0	6
52	Laves Phase Formation and Segregation of Nb in Niâ€“Crâ€“Mo Superalloy over 316L by Hot Wire (HW) TIG Cladding Process. Arabian Journal for Science and Engineering, 2020, 45, 9685-9698.	3.0	6
53	Experimental investigation of thermal fatigue behaviour of header tube to stub welded joint in power plants. International Journal of Materials Research, 2010, 101, 1180-1186.	0.3	5
54	Finite Element Simulation of Laser Welding of 904L Super Austenitic Stainless Steel. Transactions of the Indian Institute of Metals, 2011, 64, 409-416.	1.5	5

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55	Application of ANN Modelling and GA Optimization for Improved Creep and Corrosion Properties of Spin-Arc Welded AA5083-H111 Alloy. Russian Journal of Non-Ferrous Metals, 2020, 61, 188-198.	0.6	5
56	Effect of heat input, heat treatment on microstructure and mechanical properties of GTA welded aerospace material 15CDV6. Journal of Materials Research, 2017, 32, 1361-1366.	2.6	4
57	Effect of Pulse Duration on Corrosion and Impression Creep Properties of AA5083-H111 Al-Mg Alloy Weldments Processed by GTAW. Advanced Engineering Materials, 2018, 20, 1701147.	3.5	4
58	Effect of faying surfaces and characterization of aluminium AA6063-steel AISI304L dissimilar joints fabricated by friction welding with hemispherical bowl and threaded faying surfaces. International Journal of Advanced Manufacturing Technology, 2021, 116, 629-666.	3.0	4
59	Comparison of thermal fatigue behaviour of ASTM A 213 grade T-92 base and weld tubes. Journal of Mechanical Science and Technology, 2010, 24, 1067-1076.	1.5	3
60	Multi-response optimization of process parameters for GTAW process in dissimilar welding of Incoloy 800HT and P91 steel by using grey relational analysis. IOP Conference Series: Materials Science and Engineering, 2018, 314, 012023.	0.6	3
61	Microstructural and Mechanical Characterization of as Weld and Aged Conditions of AA2219 Aluminium Alloy by Gas Tungsten Arc Welding Process. Russian Journal of Non-Ferrous Metals, 2018, 59, 93-101.	0.6	3
62	Optimization, characterization and heat treatment of TIG-welded AA2219-T87 alloy. Emerging Materials Research, 2019, 8, 387-393.	0.7	3
63	Microstructure and Creep Behavior Property of Dissimilar Joints Between Incoloy 800HT and P91 Steel. Transactions of the Indian Institute of Metals, 2019, 72, 2673-2686.	1.5	3
64	Corrosion and Creep Properties of Weld Beads Produced on AA5083-H111 Alloy Sheets Using SpinArc GMAW Process. Metals and Materials International, 2020, 26, 115-129.	3.4	3
65	A comparative analysis of metallurgical and mechanical properties of friction welded and post weld heat treated (oil quenched) duplex stainless steel joints. Materials at High Temperatures, 2018, 35, 309-315.	1.0	2
66	Thermography analysis and porosity formation during laser beam welding of AA5083-H111 aluminum alloy. Journal of Thermal Analysis and Calorimetry, 2020, 146, 1551.	3.6	2
67	MECHANICAL PROPERTIES ESTIMATION FROM TENSILE TESTING OF AA6063-AISI304L BIMETAL JOINTS FRICTION WELDED WITH DIFFERENT JOINING METHODS. Surface Review and Letters, 2021, 28, 2150013.	1.1	2
68	METALLURGICAL AND CORROSION CHARACTERIZATION OF POST WELD HEAT TREATED DUPLEX STAINLESS STEEL (UNS S31803) JOINTS BY FRICTION WELDING PROCESS. Surface Review and Letters, 2016, 23, 1650013.	1.1	1
69	POST WELD HEAT TREATMENT OF NiTiInol SHAPE MEMORY ALLOY USING LASER POWER SOURCE. Surface Review and Letters, 2020, 27, 1950160.	1.1	1
70	Creep and Corrosion Characteristics of Laser Welded AA5083 Al-Mg alloy. Lasers in Manufacturing and Materials Processing, 0, , 1.	2.2	1
71	Studies on effect of Nb segregation and formation of secondary phases of Ni-Cr-Mo clad on 316L substrate by Cold Metal arc Transfer (CMT) Process. Surface Review and Letters, 0, , .	1.1	0
72	Microstructure Evaluation on Friction Stir Welding of Cryorolled 2219 Aluminum Alloy. Journal of Testing and Evaluation, 2019, 47, 2827-2846.	0.7	0