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Specialization : Welding and Manufacturing Process

No. of Publications: 55

1.	Studies on corrosion behavior of AISI 316L cold metal transfer weldments in physiological solutions AR Kannan, NS Shanmugam, G Sreedhar Proceedings of the Institution of Mechanical Engineers, Part E: Journal of ...	2020
2.	Microstructure characterization and tensile properties of CMT-based wire plus arc additive manufactured ER2594 PP Nikam, D Arun, KD Ramkumar, N Sivashanmugam Materials Characterization 169, 110671	2020
3.	Microstructure and mechanical properties of wire arc additive manufactured bi-metallic structure A Rajesh Kannan, S Mohan Kumar, R Pramod, N Pravin Kumar, ... Science and Technology of Welding and Joining, 1-11	2020
4.	Experimental and numerical studies on gas tungsten arc welding of Ti-6Al-4V tailor-welded blank A Karpagaraj, NR Kumar, N Thiyaneshwaran, NS Shanmugam, ... Journal of the Brazilian Society of Mechanical Sciences and Engineering 42 ...	2020
5.	Some studies on nickel based Inconel 625 hard overlays on AISI 316L plate by gas metal arc welding based hardfacing process NP Kumar, NS Shanmugam Wear 456, 203394	2020
6.	Simulation and Experimental Studies on Arc Efficiency and Mechanical Characterization for GTA-Welded Ti-6Al-4V Sheets A Karpagaraj, NR Kumar, K Sankaranarayanamsamy, NS Shanmugam, ... Arabian Journal for Science and Engineering, 1-12	2020
7.	Tribological performance of wire arc additive manufactured 347 austenitic stainless steel under unlubricated conditions at elevated temperatures R Duraisamy, SM Kumar, AR Kannan, NS Shanmugam, ... Journal of Manufacturing Processes 56, 306-321	2020
8.	Fabrication, characterisation, and finite element analysis of cold metal transfer-based wire and arc additive-manufactured aluminium alloy 4043 cylinder R Pramod, SM Kumar, B Girinath, AR Kannan, NP Kumar, ... Welding in the World, 1-15	2020
9.	Process-microstructural features for tailoring fatigue strength of Wire Arc Additive	2020

	Manufactured Functionally Graded Material of SS904L and Hastelloy C AR Kannan, SM Kumar, NP Kumar, NS Shanmugam, AS Vishnu, ... Material s Letters, 127968	-276	
10.	Studies on cold metal transfer welding of aluminium alloy 6061 R Pramod, NS Shanmugam, CK Krishnadasan Proceedings of the Institution of Mechanical Engineers, Part L: Journal of ...	-T6 using ER 4043	2020
11.	Insight into the microstructural features and corrosion properties of wire arc additive manufactured super duplex stainless steel (ER2594) AR Kannan, NS Shanmugam, V Rajkumar, M Vishnukumar Materials Letters, 127680		2020
12.	Effect of heat input and weld chemistry on mechanical and microstructural aspects of double side welded austenitic stainless steel 321 grade using tungsten inert gas arc ... SM Kumar, NS Shanmugam MATERIALWISSENSCHAFT UND WERKSTOFFTECHNIK 51 (3), 349	-367	2020
13.	Studies on influence of torch orientation on microstructure, mechanical properties and formability of AA5052 CMT welded blanks B Girinath, NS Shanmugam, C Sathiyarayanan Archives of Civil and Mechanical Engineering 20 (1), 1	-22	2020
14.	A study on corrosion behavior of stainless steel dissimilar alloy weld joints (321 & 347) MS Kumar, S Gopi, N Sivashanmugam, A Sasikumar Materials Today: Proc eedings		2020
15.	Formability studies on plasma arc welded duplex stainless steel 2205 sheet R Pramod, S Mohan Kumar, NS Shanmugam, SA Vendan Materialwissenschaft und Werkstofftechnik 51 (2), 163	-173	2020
16.	Investigations on mechanical properties and microstructural examination of activated TIG -welded nuclear grade stainless steel SM Kumar, S Sankarapandian, NS Shanmugam Journal of the Brazilian Society of Mechanical Sciences an d Engineering 42 ...		2020
17.	Some Studies on Mechanical Properties of AISI 316L Austenitic Stainless Steel Weldments by Cold Metal Transfer Process AR Kannan, NS Shanmugam Advances in Additive Manufacturing and Joining,	359 -371	2020
18.	Numerical prediction of temperature distribution and residual stresses on plasma arc welded thin titanium sheets VDNSS M. Arunkumar International Journal of Modelling and Simulation		2019
19.	EXPERIMENTAL INVESTIGATION ON PLASMA ARC WELDED Ti64 SHEETS D Veeman, T Sathish, V Petley, G Sriram Transactions of the Canadian Society for Mechanical Engineering		2019
20.	Finite element simulation for tensile and impact test of activated TIG welding of		2019

	AISI 321 austenitic stainless steel S Mohan Kumar, NS Shanmugam Proceedings of the Institution of Mechanical Engineers, Part L: Journal of ...	
21.	Activated TIG Welding of AISI 321 Austenitic Stainless Steel for Predicting SM Kumar, NS Shanmugam, K Sankaranarayananamy Advances in Computational Methods in Manufacturing: Select Papers from ICCMM ...	2019
22.	Some Studies on Mechanical Properties of AISI 316L Austenitic Stainless Steel AR Kannan, NS Shanmugam Advances in Additive Manufacturing and Joining: Proceedings of AIMTDR 2018, 359	2019
23.	Design and finite element analysis of metal-elastomer lined composite over wrapped spherical pressure vessel R Pramod, CK Krishnadasan, NS Shanmugam Composite Structures 224, 111028	2019
24.	Studies on spin arc welding process on the behavior of C1018 plates -an insight into mechanical and metallurgical transformation K Parthiban, NS Shanmugam, K Sankaranarayananamy, SA Vendan Materials Research Express 6 (10), 106540	2019
25.	Effect of cold metal transfer process parameters on micro structural evolution and mechanical properties of AISI 316L tailor welded blanks AR Kannan, NS Shanmugam, SA Vendan The International Journal of Advanced Manufacturing Technology 103 (9) -12 ...	2019
26.	Weld bead graphical prediction of cold metal transfer weldment using ANFIS and MRA model on Matlab platform B Girinath, N Siva Shanmugam, K Sankaranarayananamy Simulation 95 (8), 725 -736	2019
27.	Reliability and sustainability of wire arc additive manufactured plates using ER 347 wire -mechanical and metallurgical perspectives R Duraisamy, S Mohan Kumar, A Rajesh Kannan, N Siva Shanmugam, ... Proceedings of the Institution of Mechanical Engineers, Part C: Journal of ...	2019
28.	Experimental investigations and numerical prediction on the effect of shielding area and post flow time in the GTAW of CP Ti sheets A Karpagaraj, NS Shanmugam, K Sankaranarayananamy The International Journal of Advanced Manufacturing Technology 101 (9) -12 ...	2019
29.	Advances in Manufacturing Technology: Select Proceedings of ICAMT 2018 SS Hiremath, NS Shanmugam, BRR Bapu Springer	2019
30.	Studies on the weld integrity, formability and microstructural evolution of grade 2 titanium sheets of laser beam welding process JAS Edberk, NS Shanmugam Materials Research Express 6 (4), 046525	2019
31.	Studies on crack propagation in plasma arc welded Ti -6Al -4V joint during erichsen	2019

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32.	Effect of Plasma Arc Welding on Residual Stress and Distortion of Thin Titanium Sheet M Arunkumar, V Dhinakaran, N Sivashanmugam, V Petley Materials Research 22 (6)	2019
33.	Effect of arc length correction on weld bead geometry and mechanical properties of AISI 316L weldments by cold metal transfer (CMT) process AR Kannan, NS Shanmugam, S Naveenkumar Materials Today: Proceedings 18, 3916 -3921	2019
34.	Microstructure and Abrasive Wear Behaviour of Nickel Based Hardfacing Stainless Steel Deposited by Gas Metal Arc Welding B Suresha , SG Channabasavanna, NS Shanmugam Applied Mechanics and Materials 895, 278 -283	2019
35.	Activated TIG Welding of AISI 321 Austenitic Stainless Steel for Predicting Parametric Influences on Weld Strength of Tensile Test — Experimental and Finite Element Method Approach SM Kumar, NS Shanmugam, K Sankaranarayanamy Advances in Computational Methods in Manufacturing, 179 -192	2019
36.	Finite Element Analysis of Potential Liner Failures During Operation in Spherical Pressure Vessel R Pramod, NS Shanmugam, CK Krishnadasan, K Sankaranarayanamy Advances in Computational Methods in Manufacturing, 1073 -1087	2019
37.	Investigation on the Effect of Torch Angle on the Formability of AA5052 CMT Weldments B Girinath, NS Shanmugam, K Sankaranarayanamy Transactions of the Indian Institute of Metals, 1 -5	2019
38.	Design and fabrication of special fixture for different weld configurations of commercial pure Titanium sheet in laser beam welding process JAS Edberk, NS Shanmugam, K Sankaranarayanamy IOP Conference Series: Materials Science and Engineering 455 (1), 012075	2018
39.	Effect of activated flux on penetration depth, microstructure and mechanical properties of Ti -6Al -4V TIG welds KD Ramkumar, V Varma, M Prasad, ND Rajan, NS Shanmugam Journal of Materials Processing Technology 261, 233 -241	2018
40.	Studies on the weldability, mechanical properties and microstructural characterization of activated flux TIG welding of AISI 321 austenitic stainless steel SM Kumar, NS Shanmugam Materials Research Express 5 (10), 10652 -4	2018
41.	Evaluating the effects of different types of hand gloves and handle grip materials on hand -arm response while operating hand grinding machines C Mani, K Sankaranarayanamy, N Sivashanmugam Journal of Industrial Safety Engineering 4 (3), 10 -23	2018

42.	Experimental and numerical investigation of charpy impact test of spin arc welded C1018 plates K Parthiban, NS Shanmugam, K Shankara IOP Conference Series: Materials Science and Engineering 455 (012069)	2018
43.	Characterization of AA7075 weldment using CMT process C Gandhi, N Dixit, O Aranke, M Arivarasu, NS Shanmugam, ... Materials Today: Proceedings 5 (11), 24024 -24032	2018
44.	Investigations on the Microstructure, Microsegregation and Hardness Properties of Bead on Plasma Arc Welded C -276 Alloy P Subramani, S Shetty, R Anirudhapandit, PR Hari, KG Kumar, ... Materials Today: Proceedings 5 (5), 13628 -13636	2018
45.	Studies on Spring Back Effect of TIG Welded Ti -6Al -4V Sheets A Karpagaraj, NS Shanmugam, B Suresha, SA Vendan Simulations for Design and Manufacturing, 147 -171	2018
46.	Prediction of bead geometry in cold metal transfer welding using back propagation neural network NP Kumar, PK Devarajan, SA Vendan, N Shanmugam The International Journal of Advanced Manufacturing Technology 93 (1 -4), 385 -392	2017
47.	Experimental investigations on the SiO <sub>2</sub> flux -assisted GTA welding of super - austenitic stainless steels KD Ramkumar, JLN Varma, G Chaitanya, S Logesh, M Krishnan, ... The International Journal of Advanced Manufacturing Technology 93 (1 -4), 129 -140	2017
48.	Analytical and numerical investigations of weld bead shape in plasma arc welding of thin Ti -6Al -4V sheets V Dhinkaran, NS Shanmugam, K Sankaranarayananasamy, R Rahul SIMULATION	2017
49.	Studies on the Parametric Effects of Plasma Arc Welding of 2205 Duplex Stainless Steel RS Bharathi, NS Shanmugam, RM Kannan, SA Vendan High Temperature Materials and Processes	2017
50.	Some studies on temperature field during plasma arc welding of thin titanium alloy sheets using parabolic Gaussian heat source model V Dhinakaran, NS Shanmugam, K Sankaranarayananasamy Proceedings of the Institution of Mechanical Engineers, Part C: Journal of ...	2017
51.	Experimental investigation and numerical simulation of weld bead geometry and temperature distribution during plasma arc welding of thin Ti -6Al -4V sheets V Dhinakaran, NS Shanmugam, K Sankaranarayananasamy The Journal of Strain Analysis for Engineering Design 52 (1), 30 -44	2017
52.	Studies on mechanical behavior and microstructural analysis of tailor welded blanks of Ti -6Al -4V titanium alloy sheet A Karpagaraj, NS Shanmugam, K Sankaranarayananasamy	2016

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53.	Investigations on the parametric effects of cold metal transfer process on the microstructural aspects in AA6061 NP Kumar, SA Vendan, NS Shanmugam Journal of Alloys and Compounds 658, 255 -264	2016
54.	Some studies on mechanical properties and microstructural characterization of automated TIG welding of thin commercially pure titanium sheets A Karpagaraj, N Siva shanmugam, K Sankaranarayananasamy Materials Science and Engineering: A 640, 180 -189	2015
55.	Steady state analysis of regular hollow pyramidal radiating fin with triangular cross section V Venkataramanan, R Madhavanewwaran, SN Shanmugam Thermal Science 19 (1), 59 -68	2015