

RESEARCH PUBLICATIONS

No. of papers: 50 (From 2015 to till date)

1. A Rajesh Kannan, S Mohan Kumar, R Pramod, N Pravin Kumar, **N Siva Shanmugam**, Yasam Palguna, Microstructure and mechanical properties of wire arc additive manufactured bi-metallic structure, Science and Technology of Welding and Joining, 1-11, **2020 Impact factor – 3.422**
2. A Rajesh Kannan, **N Siva Shanmugam**, G Sreedhar, Studies on corrosion behavior of AISI 316L cold metal transfer weldments in physiological solutions, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 234(6), 644-656, **2020 Impact factor – 1.606**
3. A Karpagaraj, N Rajesh Kumar, N Thiyaneshwaran, **N Siva Shanmugam**, Murali Mohan Cheepu, R Sarala, Experimental and numerical studies on gas tungsten arc welding of Ti–6Al–4V tailor-welded blank, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(10), 1-11, **2020 Impact factor – 1.755**
4. Pranav Praveen Nikam, D Arun, K Devendranath Ramkumar, **N Sivashanmugam**, Microstructure characterization and tensile properties of CMT-based wire plus arc additive manufactured ER2594, Materials Characterization, 110671, **2020 Impact factor – 3.562**
5. N Pravin Kumar, **N Siva Shanmugam**, Some studies on nickel based Inconel 625 hard overlays on AISI 316L plate by gas metal arc welding based hardfacing process, Wear, 456, 203394, **2020 Impact factor – 4.108**
6. CK Krishnadasan, **N Siva Shanmugam**, B Sivasubramonian, B Nageswara Rao, R Suresh, Analytical studies and numerical predictions of stresses in shear joints of layered composite panels for aerospace applications, Composite Structures, 112927, **2020 Impact factor – 5.138**
7. A Karpagaraj, N Rajesh Kumar, K Sankaranarayanassamy, **N Siva Shanmugam**, Muralimohan Cheepu, Simulation and Experimental Studies on Arc Efficiency and Mechanical Characterization for GTA-Welded Ti–6Al–4V Sheets, Arabian Journal for Science and Engineering, **2020 Impact factor- 1.711**
8. R Duraisamy, S Mohan Kumar, A Rajesh Kannan, **N Siva Shanmugam**, K Sankaranarayanassamy, MR Ramesh, Tribological performance of wire arc additive manufactured 347 austenitic stainless steel under unlubricated conditions at elevated temperatures, Journal of Manufacturing Processes 56, 306-321, **Impact factor-4.086.**
9. R Pramod, S Mohan Kumar, B Girinath, A Rajesh Kannan, N Pravin Kumar, **N Siva Shanmugam**, ‘Fabrication, characterisation, and finite element analysis of cold metal transfer–based wire and arc additive–manufactured aluminium alloy 4043 cylinder, Welding in the World, 1-15, **Impact factor-1.589.**
10. A Rajesh Kannan, S Mohan Kumar, N Pravin Kumar, **N Siva Shanmugam**, AS Vishnu, Yasam Palguna Process-microstructural features for tailoring fatigue strength of Wire Arc Additive Manufactured Functionally Graded Material of SS904L and Hastelloy C-276 Materials Letters, 127968, **Impact factor-3.204.**
11. R Pramod, **N Siva Shanmugam**, CK Krishnadasan, [Studies on cold metal transfer welding of aluminium alloy 6061-T6 using ER 404](#), Proceedings of the Institution of Mechanical

Engineers, Part L: Journal of Materials: Design and Applications, **2020, Impact factor-1.568.**

12. A Rajesh Kannan, **N Siva Shanmugam**, V Rajkumar, M Vishnukumar, Insight into the microstructural features and corrosion properties of Wire Arc Additive Manufactured Super Duplex Stainless Steel (ER2594), Materials Letters, Pages 127680, **2020, Impact factor-3.204.**
13. S Mohan Kumar and **N Siva Shanmugam**, 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 welding process, Material Science & Engineering Technology, Vol. 51, Issue 3, Pages 349-367, **2020, Impact factor-0.556.**
14. B Girinath, **N Siva Shanmugam** and C Sathiyarayanan, Studies on influence of torch orientation on microstructure, mechanical properties and formability of AA5052 CMT welded blanks, Archives of Civil and Mechanical Engineering, Vol. 20, Issue 1, Pages 1-22, **2020, Impact factor-2.846.**
15. R Pramod, S Mohan Kumar, **N Siva Shanmugam** and S Arungalai Vendan, Formability studies on plasma arc welded duplex stainless steel 2205 sheet, Material Science & Engineering Technology, Vol. 51, Issue 2, Pages 163-173, **2020, Impact factor-0.556.**
16. M Arunkumar, V Dhinakaran and **N Siva Shanmugam**, [Numerical prediction of temperature distribution and residual stresses on plasma arc welded thin titanium sheets](#), International Journal of Modelling and Simulation, **2019.**
17. Dhinakaran Veeman, T Sathish, Vijay Petley and Gokulakrishnan Sriram, [Experimental Investigation on Plasma Arc Welded Ti64 Sheets](#), Transactions of the Canadian Society for Mechanical Engineering, **2019, Impact factor-0.38.**
18. S Mohan Kumar and **N Siva Shanmugam**, Finite element simulation for tensile and impact test of activated TIG welding of AISI 321 austenitic stainless steel, Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, Vol. 223, Issue 11, Pages 2323-2334, **2019, Impact factor-1.568.**
19. R Pramod, CK Krishnadasan, **N Siva Shanmugam**, Design and finite element analysis of metal-elastomer lined composite over wrapped spherical pressure vessel, Composite Structures, Vol. 224, Pages 111028, **2019, Impact factor-4.829.**
20. K Parthiban, **N Siva Shanmugam**, K Sankaranarayanassamy and S Arungalai Vendan, Studies on spin arc welding process on the behavior of C1018 plates-an insight into mechanical and metallurgical transformation, Material research express, Vol. 6 No. 10, **2018, Pages 106540, Impact factor – 1.449.**
21. A Rajesh Kannan, N Siva Shanmugam and S Arungalai Vendan, Effect of cold metal transfer process parameters on microstructural evolution and mechanical properties of AISI 316L tailor welded blanks, The International Journal of Advanced Manufacturing Technology, Vol. 103 Issue 9-12, Pages 4265-4282, **2019, Impact factor- 2.496.**
22. B. Girinath, **N. Siva Shanmugam** and K. Sankaranarayanassamy, Weld bead graphical prediction of cold metal transfer weldment using ANFIS and MRA model on MATLAB platform, Simulation: Transactions of the Society for Modeling and Simulation International, Vol. 95 Issue 8, Pages 725-736, **2019, Impact factor-1.455.**
23. R Duraisamy, S Mohan Kumar, A Rajesh Kannan, **N Siva Shanmugam** and K Sankaranarayanassamy [Reliability and sustainability of wire arc additive manufactured plates using ER 347 wire-mechanical and metallurgical perspectives](#), Proceedings of the

Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, **2019 Impact factor – 1.359.**

24. A. Karpagaraj, **N. Siva Shanmugam** and K. Sankaranarayanamy Experimental investigations and numerical prediction on the effect of shielding area and post flow time in the GTAW of CP Ti sheets The International Journal of Advanced Manufacturing Technology, Vol. 101 Issue 9-12, Pages 2933-2945, **2019, Impact factor- 2.496**
25. J. Anthuvan Stephen Edberk and **N. Siva Shanmugam** Studies on the weld integrity, formability and microstructural evolution of grade 2 titanium sheets of laser beam welding process, Material research express, Vol. 6 No. 4, 2019, Pages 046525, **Impact factor – 1.449.**
26. V Dhinakaran, R Patil, G Sriram and **NS Shanmugam**, Studies on crack propogation in plasma arc welded Ti-6Al-4V joint during erichsen cupping test, International Journal of Recent Technology and Engineering, 2019, Vol.8, Issue 1, Pages 79-83, 2019.
27. Muthusamy Arunkumar, Veeman Dhinakaran, **Nallathambhi Sivashanmugam** and Vijay Petley, Effect of Plasma Arc Welding on Residual Stress and Distortion of Thin Titanium Sheet, Materials Research, Vol. 22, Issue 6, 2019.
28. A Rajesh Kannan, **N Siva Shanmugam** and S Naveenkumar, Effect of Arc Length Correction on Weld Bead Geometry and Mechanical Properties of AISI 316L Weldments by Cold Metal Transfer (CMT) Process, Materials Today: Proceedings, Vol. 18, Pages 3916-3921, 2019.
29. Bheemappa Suresha, SG Channabasavanna and **N Siva Shanmugam**, Microstructure and Abrasive Wear Behaviour of Nickel Based Hardfacing Stainless Steel Deposited by Gas Metal Arc Welding, Applied Mechanics and Materials, Vol. 895, Pages 278-283, 2019.
30. B Girinath, **N Siva Shanmugam** and K Sankaranarayanamy, Investigation on the Effect of Torch Angle on the Formability of AA5052 CMT Weldments, Transactions of the Indian Institute of Metals, Pages 1551–1555, **2019 Impact factor – 1.176.**
31. K Parthiban, **N Siva Shanmugam** and K Sankaranarayanamy, Experimental and numerical investigation of charpy impact test of spin arc welded C1018 plates, IOP Conference Series: Materials Science and Engineering, Vol. 455, No. 1, **2018**, Pages 012069.
32. J Anthuvan Stephen Edberk, **N Siva Shanmugam** and K Sankaranarayanamy, Design and fabrication of special fixture for different weld configurations of commercial pure Titanium sheet in laser beam welding process, IOP Conference Series: Materials Science and Engineering, Vol. 455 No. 1, **2018**, Pages 012075.
33. S. Mohan Kumar and **N. Siva Shanmugam** Studies on the weldability, mechanical properties and microstructural characterization of activated flux TIG welding of AISI 321 austenitic stainless steel, Material research express, Vol. 5 No. 10, **2018**, Pages 106524 **Impact factor – 1.449.**
34. Chidambaram Mani, Krishnasamy Sankaranarayanamy and **Nallathambi Sivashanmugam**, Evaluating the effects of different types of hand gloves and handle grip materials on hand-arm response while operating hand grinding machines, Journal of Industrial Safety Engineering, Vol. 4, Issue 3, Pages 10-23, **2018.**
35. Chaitanya Gandhi, Nikhil Dixit, Omkar Aranke, M Arivarasu, **N Siva Shanmugam**, M Manikandan and N Arivazhagan Characterization of AA7075 Weldment using CMT Process, Materials Today Proceedings, Volume 5, Issue 11, Part 3, **2018**, Pages 24024-24032

36. **N. Siva Shanmugam**, J. Anthuvan Stephen Ederk and K. Sankaranarayanamy Some Studies on mechanical characterization of laser welded thin Ti-6Al-4V sheets, High Temperature materials and processes – Accepted for publication **Impact factor – 0.433**
37. K Devendranath Ramkumar, Vinayak Varma, Madhukar Prasad, N Deva Rajan, **N Siva Shanmugam**, Effect of activated flux on penetration depth, microstructure and mechanical properties of Ti-6Al-4V TIG welds, Journal of Materials Processing Technology, Vol. 261, 233-241, **2018 Impact Factor - 3.647**
38. N Pavan Kumar, Praveen K Devarajan, S Arungalai Vendan and **N Shanmugam**, Prediction of bead geometry in cold metal transfer welding using back propagation neural network, The International Journal of Advanced Manufacturing Technology, Vol. 93 Issue 1-4, Pages 385-392, **2017, Impact factor- 2.496.**
39. P Subramani, Sanket Shetty, R Anirudhapandit, PR Hari, K Gokul Kumar, M Manikandan, N Arivazhagan, **N Siva Shanmugam** “Investigations on the Microstructure, Microsegregation and Hardness Properties of Bead on Plasma Arc Welded C-276 Alloy Materials Today: Proceedings, Vol 5, Issue 5, pp. 13628-13636
40. V Dhinakaran, **N Siva Shanmugam**, K Sankaranarayanamy and R Rahul, [Analytical and numerical investigations of weld bead shape in plasma arc welding of thin Ti-6Al-4V sheets](#), Simulation: Transactions of the Society for Modeling and Simulation International, **Impact factor - 0.940**
41. R. Selva Bharathi, **N. Siva Shanmugam**, R. Murali Kannan and S. Arungalai Vendan, [Studies on the Parametric Effects of Plasma Arc Welding of 2205 Duplex Stainless Steel](#), High Temperature Materials and Processes, **Impact factor - 0.433**
42. V Dhinakaran, **N Siva Shanmugam** and K Sankaranarayanamy, Experimental investigation and numerical simulation of weld bead geometry and temperature distribution during plasma arc welding of thin Ti-6Al-4V sheets, The Journal of Strain Analysis for Engineering Design, Vol. 52 Issue 1, **2017**, pp. 30-44 **Impact Factor – 1.250**
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45. K. Devendranath Ramkumar, Debidutta Mishra, B. Ganesh Raj, M.K. Vignesh, G. Thiruvengatam, S.P. Sudharshan, N. Arivazhagan, **N. Sivashanmugam** and Arul Maximus Rabel, Effect of optimal weld parameters in the microstructure and mechanical properties of autogeneous gas tungsten arc weldments of super-duplex stainless steel UNS S32750, Materials & Design (1980-2015), Vol. 66, Part A, **2015**, pp. 356-365 **Impact Factor – 4.364**
46. K Devendranath Ramkumar, Jelli Lakshmi Narasimha Varma, Gangineni Chaitanya, S Logesh, Madhav Krishnan, N Arivazhagan and **N Siva Shanmugam**, Experimental investigations on the SiO₂ flux-assisted GTA welding of super-austenitic stainless steels, The International Journal of Advanced Manufacturing Technology, DOI: 10.1007/s00170-015-7876-6 **Impact Factor – 2.209**

47. V Dhinakaran, **N Siva Shanmugam** and K Sankaranarayanasamy, [Some studies on temperature field during plasma arc welding of thin titanium alloy sheets using parabolic Gaussian heat source model](#), Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, **Impact Factor – 1.015**
48. A. Karpagaraj, **N. Siva Shanmugam** and K. Sankaranarayanasamy, Some studies on mechanical properties and microstructural characterization of automated TIG welding of thin commercially pure titanium sheets, Materials Science and Engineering: A, Vol. 640, **2015**, pp. 180-189 **Impact Factor – 3.094**
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50. Vijaikrishnan V, Ramakrishnan M and **N. Siva Shanmugam**, Steady state analysis of regular hollow pyramidal radiating fin with triangular cross-section, Thermal Science, Volume 19, Issue 1, **2015**, Pages: 59-68 **Impact Factor: 0.962**