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**International Journal Publications: 53**

**List of Publications**

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 Sankaranarayanasamy, 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 Sankaranarayanasamy, 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, PartL: 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*, Dr. N. Siva Shanmugam Resume, Page 10 of 18. International Journal of Modelling and Simulation, <https://doi.org/10.1080/02286203.2019.1700089>, 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, <https://doi.org/10.1139/tcsme-2019-0149>, 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, <https://doi.org/10.1177%2F0954406219861136>, 2019 **Impact factor – 1.359**.
24. A. Karpagaraj, N. Siva Shanmugam and K. Sankaranarayanassamy *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.

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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 Sankaranarayanassamy, *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 Sankaranarayanassamy, *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 Sankaranarayanassamy, *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 Sankaranarayanassamy 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 Edberk and K. Sankaranarayanassamy *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 Sankaranarayanassamy 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, DOI: 10.1177/0037549717726580, **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, <https://doi.org/10.1515/htmp-2016-0087>  
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42. V Dhinakaran, N Siva Shanmugam and K Sankaranarayananasamy, *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**
43. A. Karpagaraj, N. Siva Shanmugam and K. Sankaranarayananasamy, *Studies on mechanical behavior and microstructural analysis of tailor welded blanks of Ti-6Al-4V titanium alloy sheet*, Journal of Materials Research, Vol. 34 Issue 11, 2016, pp. 2186-2196 **Impact Factor – 1.673**
44. Nalajam Pavan Kumar, S Arungalai Vendan and N Siva Shanmugam, *Investigations on the parametric effects of cold metal transfer process on the microstructural aspects in AA6061*, Journal of Alloys and Compounds, Vol. 658, 2016, pp. 255-264 **Impact Factor – 3.133**
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 SiO<sub>2</sub> 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 Sankaranarayananasamy, *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, doi: 10.1177/0954406215623574 **Impact Factor – 1.015**
48. A. Karpagaraj, N. Siva Shanmugam and K. Sankaranarayananasamy, *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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51. N. Siva Shanmugam, G. Buvashekar and K. Sankaranarayanan, *Experimental Investigation and Finite Element Simulation of laser lap welding of SS304 sheets*, International Journal of Mechanics, Issue 2, Volume 7, 2013, Pages: 120-127.
52. N. Siva Shanmugam, G. Buvashekar and K. Sankaranarayanan, *Some studies on weld bead geometries for laser spot welding process using finite element analysis*, Materials & Design, Volume 34, February 2012, Pages 412-426. **Impact Factor: 4.364**
53. Jaganathan Maniraj, Velappan Selladurai, Nallathambhi Sivashanmugam, Subbiah Arungalai Vendan, Jacob Mathew, *Experimental Investigation on Effect of Tool Crater Wear and Surface Roughness in TiN Coated WC Tool While Machining Martensitic Stainless Steel*, High Temperature Materials and Processes, Volume: 30, Issue: 3, 2011, Pages: 257-265. **Impact Factor: 0.312**

**Signature of Supervisor**