

National Conference on Challenges in Welding and Additive Manufacturing (NCWAM-2025)

27th & 28th February 2025

Day - 1: Oral Presentations

Date: 27.02.2025

Track - 01 (Room F-101)

Time: 12:00 noon – 01:00 pm

Session Chairs: TBA

Paper ID	Paper Title	Authors	Time
057-abstract-NCWAM 2025	Experimental Investigation on Inconel 718 Cladding layer deposited over Mild-Steel Substrate using CMT based WAAM technique	<u>Lalit Kumar Yadav</u> , Adarsh Kumar, Joy Prakash Misra, Rajnesh Tyagi	12:00 noon – 12:15 pm
049-abstract-NCWAM 2025	Parameters Optimization for Porosity Reduction in LASER Welding of AlSi10Mg Parts- in Defence Applications	<u>AjayKumar Vishwakarma</u> , Dibyendu Debnath, Makarand Pawar, Vijay D Hiwarkar, Himanshu Shekhar	12:15 pm – 12:30 pm
064-abstract-NCWAM 2025	Effect of shielding gas on process stability and geometrical characteristics in CMT deposition of 316L stainless steel	<u>Krishna Kumar Yadav</u> , Hemant Kumar, Chitta Ranjan Das	12:30 pm – 12:45 pm
068-abstract-NCWAM 2025	Study on PWHT parameters of thin wall T91 sheet with SS316LN plate for hexcan with foot dissimilar weld joints	<u>R.Lavakumar</u> , T.V.Prabhu, M Rawat, Bala Parandhama raju, G.Nanthakumar, Saisubhulakshmi	12:45 pm – 01:00 pm

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Date: 27.02.2025

Track - 02 (Room F-106)

Time: 12:00 noon – 01:00 pm

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Paper ID	Paper Title	Authors	Time
053-abstract-NCWAM 2025	Influence of microstructure on corrosion properties of laser-powder bed fusion processed 316L stainless steel	Kolakani Vamshi, Pankaj Kumar Singh, Rajneesh Patel, Lalit Kumar Yadav, Joy Prakash Misra, <u>G.M. Karthik</u>	12:00 noon – 12:15 pm
044-abstract-NCWAM 2025	Laser Powder Bed Fusion of Ti-6Al-4V: A Study of Post-Build Heat Treatment and Substrate Plate Heating Effects	<u>Navya Tunikipati</u> , Athira K S, Gururaj Telasang	12:15 pm – 12:30 pm
052-abstract-NCWAM 2025	Role of heat treatment on microstructure and corrosion behavior of additively manufactured 17-4 PH stainless steel	Anuraag gaurav, Pankaj Kumar Singh, Rajneesh Patel, Joy Prakash Misra, <u>G.M. Karthik</u>	12:30 pm – 12:45 pm
066-abstract-NCWAM 2025	Optimisation of Process Parameter to Repair Stainless Steel Casting Defects through Directed Energy Deposition Process for Aerospace Applications	<u>Elamurugu S</u> , Alok Agarwal, Nagarajan D, Rohit Kumar Gupta, Satish Kumar Singh	12:45 pm – 01:00 pm

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Paper ID	Paper Title	Presenting Author	Time
060-abstract-NCWAM 2025	Effect of Flux and Shielding Environment on Microstructure and Corrosion Behavior of TIG Welded 2205 Duplex Stainless Steel Joints	Arun Kumar Gurralla, <u>Raffi Mohammed</u>	03:00 pm – 03:15 pm
063-abstract-NCWAM 2025	Study on microstructure and mechanical properties of TIG and A-TIG weld joints of AISI 316L(N) stainless steel	<u>Gopa Chakraborty</u> , Hemant Kumar, C. R. Das, A. Moitra, M. Vasudevan	03:15 pm – 03:30 pm
048-abstract-NCWAM 2025	Simulation and Validation studies on Weld deformation in End cap welding of PHWR fuel element	<u>B. V. Arun Kiran</u> , Dr. M. Vasudevan, Dr. D. S. Setty, A. Maruthi Ram, Dr. Komal Kapoor	03:30 pm – 03:45 pm
025-abstract-NCWAM 2025	Numerical Approach in Weld Distortion Reduction using FEM	Wrick Bhuyan, <u>Amol Abhang</u>	03:45 pm – 04:00 pm

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055-abstract-NCWAM 2025	Metallurgical and mechanical properties evaluation of WAAM deposited AZ31B alloy	Petla Sivateja, <u>Ravi Shanker Vidyarthi</u> , Pavan Kumar Penumakala	03:00 pm – 03:15 pm
061-abstract-NCWAM 2025	Rapid Calculation of Temperature Field, Melt Pool Dimensions, and Cooling Rate in multi-track multi-layer Laser Powder Bed Fusion	<u>Birendra Kumar Barik</u> , Pramod Zagade, B P Gautham, Amitava De	03:15 pm – 03:30 pm
024-abstract-NCWAM 2025	Framework for Selecting Optimal Blade Recoater Design for AM Processes Utilizing Powder	<u>Yogesh Patil</u> , Yash Gopal Mittal, Gopal Gote, Avinash Kumar Mehta, K P Karunakaran	03:30 pm – 03:45 pm
041-abstract-NCWAM 2025	Porosity Prediction for LPBF Metal Additive Manufacturing - A Simulation Approach	Sai Nanda Kumar Reddy, <u>Jayaprakash Sharma Panchagnula</u>	03:45 pm – 04:00 pm

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Day - 2: Oral Presentations

Date: 28.02.2025

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Time: 12:00 noon – 01:00 pm

Session Chairs: TBA

Paper ID	Paper Title	Presenting Author	Time
014-abstract-NCWAM 2025	Tool-pin Profile Effects on Material Mixing and Strain Rates in Friction Stir Welding of Al-alloy Plates	<u>Ramana Murthy Bagadi</u> , Jeevan Jaidi	12:00 noon – 12:15 pm
059-abstract-NCWAM 2025	A Comparative study of Ferritic - Austenitic stainless steel dissimilar weld joints using laser and resistance spot welding.	<u>Ketul Shah</u> , Chetan Baghra, R.B. Bhatt, Aniruddha kumar	12:15 pm – 12:30 pm
043-abstract-NCWAM 2025	Study of Similar / Dissimilar Joining Between Al6063-Al6063, EN24-EN24, and Al6063-EN24 Rods Using Rotary Friction Welding (RFW)	<u>Dibyendu Debnath</u> , Ajay Kumar Vishwakarma, Mukesh Kumar Jain, Bhaskar Majumdar, Makarand Pawar, Vijay D	12:30 pm – 12:45 pm
021-abstract-NCWAM 2025	Finite-Element Simulations Study of Resistance Spot Welding Electrode-tip Configurations on Weld Quality Parameters of Dissimilar Al-alloy/Steel Sheets	<u>Prashanth Kumar Reddy Gillela</u> , Jeevan Jaidi	12:45 pm – 01:00 pm

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Paper ID	Paper Title	Presenting Author	Time
020-abstract-NCWAM 2025	Tailoring Phases and Properties Through Multi-Material Wire Arc Additive Manufacturing	<u>Ganesan G</u> , Siddhartha , Shahu Rajaram Karade, Neel Kamal Gupta, Narasimhan K, Karunakaran K P	12:00 noon – 12:15 pm
054-abstract-NCWAM 2025	Effect of heat treatment on the fatigue behavior of additively manufactured IN718	Vamshi Veeraiahgari, <u>Srinivasa Prakash Regalla</u> , Suresh Kurra	12:15 pm – 12:30 pm
065-abstract-NCWAM 2025	Numerical Studies of the Mechanics of Additively Manufactured Tape Springs for Space Applications	Thirupathi Balaji, <u>Srinivasa Prakash Regalla</u>	12:30 pm – 12:45 pm
046-abstract-NCWAM 2025	Powder Bed Fusion by Laser Beam Melting of BZL12Y Superalloy: Process Optimization, Microstructural Analysis and Mechanical Properties	<u>Athira K S</u> , B.K. Nagesha, Gururaj Telasang	12:45 pm – 01:00 pm

(Organizing Committee, NCWAM-2025)