

# SOJOM 2025 Broad Schedule

Day 1 ---- 30-10-2025 (Thursday)							
<b>Session I</b> 09.00-10.45 hrs. Inauguration	<b>Tea 11.00-11.30 hrs.</b>	<b>Session II</b> 11.30-12.30 hrs. SOJOM 2025 Award Lectures	<b>Sponsors Talks – 1</b> 12.40-13.00 hrs.	<b>Lunch 13.00-14.00 hrs.</b>	<b>Session III</b> 14.00-15.30 hrs. Plenary Talks – 1	<b>Tea &amp; Exhibition Visits</b> 15.30-16.30 hrs.	<b>Session IV</b> 16.30-18.00 hrs. Technical Sessions I
Venue : Main Hall		Venue : Main Hall			Venue : Main Hall		Venue : Main Hall, Hall – 1 and Hall – 2
Day 2 ---- 31-10-2025 (Friday)							
<b>Session V</b> 09.00 – 10.30 hrs. Plenary Talks – 2	<b>Tea 10.30-11.00 hrs.</b>	<b>Session VI</b> 11.00-12.30 hrs. AWF Session (Online)	<b>Sponsors Talks – 1</b> 12.40-13.00 hrs.	<b>Lunch 13.00-14.00 hrs.</b>	<b>Session VII</b> 14.00-15.30 hrs. Technical Sessions II	<b>Tea &amp; Exhibition Visits</b> 15.30-16.00 hrs.	<b>Session VIII</b> 16.00 -17.15 hrs. Technical Sessions III
Venue : Main Hall		Venue : Main Hall			Venue : Main Hall, Hall – 1 and Hall – 2		Venue : Main Hall, Hall – 1 and Hall – 2
Day 3 ---- 01-11-2025 (Saturday)							
<b>Session IX</b> 09.00 – 10.30 hrs. Skill Development	<b>Tea 10.30-11.00 hrs.</b>	<b>Session X</b> 11.00-12.30 hrs. Technical Sessions IV	<b>Sponsors Talks – 1</b> 12.40-13.00 hrs.	<b>Lunch 13.00-14.00 hrs.</b>	<b>Session XI</b> 14.00-15.30 hrs. Technical Sessions V	<b>Tea &amp; Exhibition Visits</b> 15.30-16.00 hrs.	<b>Session XII</b> 16.00 – 17.00 hrs. Valediction
Venue : Main Hall		Venue : Main Hall, Hall – 1 and Hall – 2			Venue: Main Hall and Hall – 1		Venue : Main Hall
Day 4 ---- 02-11-2025 (Sunday)							
WRI Day Celebration ---- 09.00-10.30 hrs. Venue : Main Hall				SOJOM 2025 Closing at 13.00 P.M.			

## Day – 1 --- 30.10.2025 (Thursday)

Sessions	Time	30.10.2025 - Day 1
<b>Session I</b>	09.00-10.45 hrs.	<b>Inauguration (Main Hall)</b>
<b>Tea</b>	11.00-11.30 hrs.	Tea
<b>Session II</b>	11.30-12.30 hrs.	<p><b>SOJOM 2025 Award Lectures (Main Hall)</b></p> <p>i) S. K. Mazumdar Lecture Award – Shri. S. M. Mahajan, President/AWF            ii) Achar Memorial Award – Dr. S. Aravindan, Professor, IIT Delhi</p> <p>Session Chairman – Shri. S. Prabhakar/ED-BHEL Trichy            Rapporteur: J.V.V. Aruna Kumar, GM/Quality</p>
<b>Sponsors Talks - 1</b>	12.40-13.00 hrs.	Sponsors Presentations
<b>Lunch</b>	13.00-14.00 hrs.	Lawn besides MD Hall
<b>Session III</b>	14.00-15.30 hrs.	<p><b>Plenary Talk – 1 (Main Hall)</b></p> <p>i) Shri. Yamakawa –MD/Amada Weld Tech India – Micro Joining            ii) Dr. M. Goplalakrishna Pillai, Director/STIC, Cochin – Challenges and Prospects in Electron Beam Welding of Titanium Alloys            iii) Dr. C. P. Paul, Head, Engineering Design &amp; Manufacturing Division, RRCAT, Indore - From Research to Industry: Initiatives in Metal Additive Manufacturing</p> <p>Session Chairman: Dr. V. Balasubramanian/ Professor and Director/CEMOJOR/Annamalai University</p>
<b>Tea &amp; Exhibition Visits</b>	15.30-16.30 hrs.	Tea

Sessions	Time	30.10.2025 - Day 1		
<b>Session IV</b> <b>Technical Session IA, IB, IC</b>	16.30-18.00 hrs.	<b>Technical Sessions IA</b> <b>(Main Hall)</b> <b>Weld Application in Aerospace Industries</b> Invited Talk 1 – 20 min Dr. A. Manjunath, Technology Director / GTRE, Bangalore Invited Talk 2 – 20 min Dr. P. Mastanaiah, Technology Director/DRDL, Hyderabad Contributory Papers – 10 min i. SJ25 – ID: 030 ii. SJ25 – ID: 032 iii. SJ25 – ID: 034 iv. SJ25 – ID: 064	<b>Technical Session IB</b> <b>(Hall 1)</b> <b>Welding Consumables and Weld Characterizations</b> Invited Talk 3 – 20 minutes Dr. TJP Rao, ED / D&H Secheron, Indore Contributory Papers – 10 min i. SJ25 – ID: 003 ii. SJ25 – ID: 040 iii. SJ25 – ID: 049 iv. SJ25 – ID: 056 v. SJ25 – ID: 080 vi. SJ25 – ID: 088	<b>Technical Session IC</b> <b>(Hall - 2)</b> <b>Welding &amp; NDT in Power Plant Industries</b> Invited Talk 4 – 20 min N. Dhanasekaran, Ind. Cons & WRI (Retd.) Invited Talk 5 – 20 min Dr. Dhayalan, IGCAR, Kalpakkam Contributory Papers – 10 min i. SJ25 – ID: 004 ii. SJ25 – ID: 005 iii. SJ25 – ID: 023 iv. SJ25 – ID: 065 v. SJ25 – ID: 079

### Session IV

Technical Session I	Venue	Session Title
Technical Session IA	Main Hall	Weld Application in Aerospace Industries
Technical Session IB	Hall – 1	Welding Consumables and Weld Characterizations
Technical Session IC	Hall – 2	Welding & NDT in Power Plant Industries

## Contributory Papers Lists for Day 1 – 30.10.2025 (Thursday)

Technical Session IA: Weld Application in Aerospace Industries				
S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
1	SJ25-ID030	Investigation of weld interface cracking in Maraging steel (Grade 250)	Brijesh Patel, Meenakshi Patil, V. Srikanth, M. Venkat Reddy, P. Mastanaiah, B. Hari Prasad; Defence Research and Development Laboratory, Hyderabad	Brijesh Patel; brijeshpatel.drld@gov.in
2	SJ25-ID032	Liquation cracking susceptibility of partially melted zone of Inconel 718 alloy weldment	Vinoth Ammasi, Keysight Technologies India Private Limited, Bangalore Sivasankari R, PSG College of Technology, Coimbatore	Vinoth Ammasi; vinoth.ammasi@keysight.com
3	SJ25-ID034	Evaluation of mechanical properties of dissimilar welds of AA6061 and AA2014 aluminum alloys prepared by Delta spot welding	Meenakshi Patil, Brijesh Patel, V Srikanth, P Mastanaiah, B Hari Prasad; DRDL, Hyderabad	Meenakshi Patil; meenakshi.drld@gov.in
4	SJ25-ID064	Influence of Welding Speed on the Microstructure and Mechanical Properties of Melt-in-Mode Plasma Arc Welded Inconel 625 Butt Joints	S Sureshbabu, Research Scholar, S Rajakumar, Associate Professor, V Balasubramanian, Professor and Director; Centre for Materials Joining and Research (CEMAJOR), Department of Manufacturing Engineering, FEAT, Annamalai University	S Sureshbabu; sn.sureshbabu27@gmail.com

**Technical Session IB: Welding Consumables and Weld Characterizations**

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
5	SJ25-ID003	Optimized welding technique for controlled Heat Affected Zone (HAZ) in stress critical regions	Venugopal A, V. P. Balaji, Shanmugham Subramaniam, Karthi Sekar ZF Commercial Vehicle Control Systems India Limited, Ambattur, Chennai – 600 058	Venugopal A
6	SJ25-ID040	Phase Evolution and Microstructural Characterization of Copper and Stainless Steel 304 Dissimilar Metal Joints by Electron Beam Welding	Ajith Raj Rajendran, Anton Savio Lewis K; Division of Aerospace Engineering, School of Engineering and Technology, Karunya Institute of Technology & Sciences, Coimbatore S. J. Vijay, Division of Mechanical Engineering, School of Engineering and Technology, Karunya Institute of Technology & Sciences, Coimbatore	Ajith Raj Rajendran; ajithraj@karunya.edu
7	SJ25-ID049	Fusion Characteristics Study of Inconel 718 using RSM	Ranjith R, A Sumesh, K Rameshkumar, Dept of Mechanical Engg, Amrita School of Engg. Coimbatore, Amrita Vishwa Vidyapeetham, S G K Manikandan, Indian Space Research Organization, Dinu Thomas Thekkuden, Machanical and Industrial Engg. Dept, Abudhabi University	Ranjith R, r_ranjith1@cb.students.amrita.edu
8	SJ25-ID056	Influence of Root Gap and Process Parameters on Butt Welding of SA 387 Gr11 Steel Using CO <sub>2</sub> -Based	Gladstone V, Arun Kumar, Naveen S, Ramesh Kumar S; School of Mechanical Engineering, SASTRA Deemed to be University, Thanjavur	Ramesh Kumar S; rameshkumar@mech.sastra.edu

		MAG Welding with ER80S-B2 Filler	Senthil Kumar S, Department of Mechanical Engineering, Alagappa Chettiar Government College of Engineering and Technology, Karaikudi	
9	SJ25 – ID080	Mechanical and Metallurgical behavior of double Pulse MIG welded IN617 plates using different filler wires	Lakshitha K J, Raja Rishika M, Deepan Bharathi Kannan T Department of Mechanical Engineering, College of Engineering Guindy, Anna University Chennai	Deepan Bharathi Kannan T; tdbk23@gmail.com
10	SJ25 – ID088	Development of Metal-Cored Wires and Procedures for Forging Die Repair	Satyendra Singh Patel, T. J. Prasadaraob D&H Sécheron Electrodes Private Limited, 44-46, Industrial Estate, Kila Maidan, Indore	Satyendra Singh Patel rnd.sp@dnhsecheron.net

### Technical Session IC : Welding & NDT in Power Plant Industries

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
11	SJ25-ID004	Advanced Filler Metal Selection For Dissimilar Welding of P91 and P92 Steels: Performance, Challenges, And Repair Strategies In Thermal Power Plants	Kamal Shah <sup>1*</sup> , Abhishek Vyas <sup>2</sup> 1 Head – Application Technology Centre, Voestalpine Bohler Welding India Pvt Ltd 2 Manager - Application Technology Centre, Voestalpine Bohler Welding India Pvt Ltd	Abhishek.vyas@voestalpine.com

12	SJ25-ID005	Development of Hot Wire Narrow Gap TIG Welding Technology for Dissimilar Metal Joints in AUSC Turbine Rotors and Casings	Jitendra Kumar, Luky Gaur, B. S. Arora, Bharat Heavy Electricals Limited, Haridwar	Jitendra Kumar kr.jitendra@bhel.in
13	SJ25 – ID023	Metallurgical Investigation of Electric Resistance Weld (ERW) Pipe Failure	Vimalan G	Vimalan G vimalan@bhel.in
14	SJ25-ID065	Effect of Heat Treatment on Mechanical and Microstructural Characteristics of Hot Wire TIG Welded Inconel 617 Tube Joints	M. Reddeiah, S. Rajakumar, Department of Manufacturing Engineering, Faculty of Engineering and Technology (FEAT), Annamalai University, Chidambaram, P. Hema, Department of Mechanical Engineering, Sri Venkateswara University, Tirupati, K. Devakumaran Bharat Heavy Electricals Limited, Trichy	M. Reddeiah; madpuri.reddaiah@gmail.com
15	SJ25-ID079	Effects of gas tungsten arc welding techniques on post-weld heat treatment performance of dissimilar joints of martensitic steel and austenitic stainless steel for AUSC Power plants	T.M. Sonar, M.A. Ivanov, I.A. Shcherbakov, E.A. Khasanova, Department of Welding Equipment and Technology, South Ural State University (National Research University), Chelyabinsk, 454080, Russia E.A. Trofimov, Department of Materials Science, Physical and Chemical Properties of Materials, South Ural State University (National Research University), Chelyabinsk, 454080, Russia.	T.M. Sonar; tushar.sonar77@gmail.com

## Day – 2 --- 31.10.2025 (Friday)

Sessions	Time	31.10.2025 - Day 2		
<b>Session V</b>	09.00 – 10.30 hrs.	<b>Plenary Talks II (Main Hall)</b>		
		<ol style="list-style-type: none"> <li>1. Dr. Joel Andersson, University West, Sweden – <i>Advancing Additive Manufacturing of High Quality Alloys Building on an Innovation Ecosystem at the Production Technology Centre</i></li> <li>2. Dr. S. Suresh, Sr. Consultant &amp; Faculty, GM/WRI &amp; Labs (Retd.), <i>Fabrication of Chenab River Bridge Structures – Challenges and Leanings</i></li> <li>3. Dr. P. Ganesh, Head, Metallurgical Characterization and Chemical Technology Section RRCAT - <i>Activated TIG welding of austenitic stainless steel with nitrogen addition for enhanced penetration and controlled magnetic permeability</i></li> </ol>		
<b>Tea</b>	10.30 - 11.00 hrs.	Tea		
<b>Session VI</b>	11.00 - 12.30 hrs.	<b>AWF Session (Online) (Main Hall)</b>		
		<ol style="list-style-type: none"> <li>1. JWES Welding Coordinators Certification System, Mr. Shoichi Nomura, JWES</li> <li>2. BRICS+ Mechanism of Technological Innovation &amp; Skill Development, Dr. Liu Zhenying, Chairman, China Chapter of BRICS Business Council Skill Development</li> <li>3. Emerging NDT Technologies, Mr. Suchin Katavut, MD, SK NDT &amp; Inspection Co. Ltd.</li> <li>4. Digital Tools &amp; Industry 4.0 in Welding, Mr. Moe Zaw Aung, Myanmar Society of Welding Engineering</li> <li>5. Skill Development – Initiatives &amp; Methodology, Mr. Zaed Yuliadi, Indonesia</li> </ol>		
<b>Sponsors Talks - 2</b>	12.30 - 13.00 hrs.	Sponsors presentations		
<b>Lunch</b>	13.00 - 14.00 hrs.	Lawn besides MD Hall		
<b>Session VII Technical Session IIA, IIB and IIC</b>	14.00 - 15.30 hrs.	<b>Technical Session IIA (Main Hall) Additive Manufacturing – I</b>	<b>Technical Session IIB (Hall 1) Welding Simulation and Surface Engineering</b>	<b>Technical Session IIC (Hall - 2) Laser Assisted Materials Processing</b>
		Invited Talk 6 – 20 minutes Dr. K. R. Ravi, Professor & Head, MME, IIT Jodhpur Keynote Talk 1 – 15 minutes. Dr. Sivasankari, Asst. Prof. /PSGCT, Coimbatore Contributory Papers – 10 min i) SJ25 – ID: 016 ii) SJ25 – ID: 052 iii) SJ25 – ID: 060 iv) SJ25 – ID: 072 v) SJ25 – ID: 074	Invited Talk 7 – 30 minutes Dr. V. R. Krishnan, Ind. Consultant and GM (Retd.)/EIL Contributory Papers – 10 min i. SJ25 – ID: 024 ii. SJ25 – ID: 027 iii. SJ25 – ID: 028 iv. SJ25 – ID: 037	Invited Talk 8 – 20 min Dr. Shiva, Assoc. Prof., IIT/Jammu Keynote Talk 2 – 20 min. Dr. B. Shanmugarajan, AGM/WRI Contributory Papers – 10 min i. SJ25 – ID: 042 ii. SJ25 – ID: 044 iii. SJ25 – ID: 048 iv. SJ25 – ID: 055

<b>Tea &amp; Exhibition Visits</b>	15.30 - 16.00 hrs.	Tea		
<b>Sessions</b>	<b>Time</b>	<b>31.10.2025 - Day 2</b>		
<b>Session VIII Technical Session IIIA, IIIB and IIIC</b>	16.00 - 17.15 hrs.	<b>Technical Session IIIA (Main Hall) Additive Manufacturing II</b> Invited Talk 9 – 20 minutes Dr. Kiran, IITTY Contributory Papers i) SJ25 – ID: 020 ii) SJ25 – ID: 036 iii) SJ25 – ID: 046 iv) SJ25 – ID: 050 v) SJ25 – ID: 070	<b>Technical Session IIIB (Hall 1) Conventional Welding Processes</b> Invited Talk 10 – 20 minutes G. Sritharanandh, Regional Sales Manager, Kemppli India Contributory Papers – 10 min i. SJ25 – ID: 019 ii. SJ25 – ID: 051 iii. SJ25 – ID: 058 iv. SJ25 – ID: 062	<b>Technical Session IIIC (Hall 2) Non-Conventional Welding Processes</b> Invited Talk 11 – 20 minutes Dr. Rajakumar / Annamalai University SJ25 – ID: 083 Contributory Papers – 10 min i) SJ25 – ID: 014 ii) SJ25 – ID: 059 iii) SJ25 – ID: 067 iv) SJ25 – ID: 076 v) SJ25 – ID: 082

### Session VII

Technical Session II	Venue	Session Title
Technical Session IIA	Main Hall	Additive Manufacturing – I
Technical Session IIB	Hall – 1	Welding Simulation and Surface Engineering
Technical Session IIC	Hall – 2	Laser Assisted Materials Processing

### Session VIII

Technical Session III	Venue	Session Title
Technical Session IIIA	Main Hall	Additive Manufacturing II
Technical Session IIIB	Hall – 1	Conventional Welding Processes
Technical Session IIIC	Hall – 2	Non-Conventional Welding Processes

## Contributory Papers Lists for Day 2 – 31-10-2025 (Friday)

Technical Session IIA: Additive Manufacturing – I				
S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
1	SJ25 – ID: 016	Fabrication Of Functionally Graded Aluminium Alloy Cylinder By Wire Arc Additive Manufacturing (WAAM) Technique	R.Sudalaimani*, S.Nandha Madhavan, E.Elambarithi, S.Malarvizhi and V. Balasubramanian Ph.D Student, UG Student, Professor Centre for Materials Joining & Research (CEMAJOR), Department of Manufacturing Engineering, Annamalai University, Annamalai Nagar, Chidambaram – 608002.	R.Sudalaimani rsudalaimanime@gmail.com
2	SJ25 – ID: 052	Microstructure and Mechanical Properties of C250W Maraging Steel Fabricated by Wire Arc Additive Manufacturing at Different Heat Treatment Processes	Mohan M, Vinothkumar G, Alloy Development and Advanced manufacturing Group, Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirappalli Tamil Prabakaran S; Department of Mechanical Engineering, Government College of Engineering, Bargur, Krishnagiri R Ravibharath, Welding Research Institute-BHEL, Tiruchirappalli	Vinothkumar G, vinothkumar@nitt.edu
3	SJ25 – ID: 060	Investigation of Tensile Strength of Soldering and Gluing of 3D printed TPU	Manikandan D, B. Mallikarjuna; Department of Production Engineering, National Institute of Technology, Tiruchirappalli	B. Mallikarjuna; mallik@nitt.edu
4	SJ25 – ID: 072	Influence of In-Situ TiC nanoparticle dispersion on Grain Morphology and Mechanical properties of	Aravind A, Jerome S, Sankaranand K R	Aravind A, araviaravind21@gmail.com

		SS316L Structures fabricated through CMT-WAAM	Department of Metallurgical and Materials Engineering, National Institute of Technology Tiruchirappalli	
5	SJ25 – ID: 074	Wire Arc Additive Manufacturing of HSLA Steel Component Using Gas Metal Arc Welding Technique	B. Prabhakaran, P. Sivaraj, S. Malarvizhi, V. Balasubramanian; Centre for Materials Joining and Research (CEMAJOR), Department of Manufacturing Engineering, Annamalai University	B. Prabhakaran; rsamuniv2021@gmail.com

<b>Technical Session IIB: Welding Simulation and Surface Engineering</b>				
<b>S. No.</b>	<b>SOJOM25 ID</b>	<b>Paper Title</b>	<b>Authors Details</b>	<b>Corresponding Author Email Address</b>
6	SJ25 – ID: 024	TIG Assisted Surface Modification: Impregnation of WC Nanoparticles onto Ti-6Al-4V Alloy Surface	Dipesh Ranjan, Ramaswamy D Malagatti, Gaurav Kumar, V. Karthik NIT, Trichy	Dipesh Ranjan;
7	SJ25 – ID: 027	Numerical studies of welding and post weld heat treatment on microstructure, residual stresses and mechanical properties of 15CDV6 High-Strength Low-alloy Steel	Vinoth Ammasi, and Sridhar Rajagopalan Keysight Technologies India Private Limited	Vinoth Ammasi; vinoth.ammasi@keysight.com
8	SJ25 – ID: 028	Development of an AI based weld inspection system for Automotive frame component	Bhupendra Singh, KR Manikandan Production Engineering Department, TVS Motor Company Ltd	Bhupendra Singh; singh.bhupendrapratap@tvsmotor.com
9	SJ25 – ID: 037	Thermo-Mechanical Simulation of Arc Welding	Gladstone V, Ramesh G, Shanmugarajan B, Ramesh Kumar S	Ramesh Kumar S; srk1306@gmail.com

		on A213 T11 Tubes Using Goldak Model	SASTRA University, Rajiv Gandhi University of Knowledge Technologies, Kadapa and WRI/BHEL.	
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### Technical Session IIC: Laser Assisted Materials Processing

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
10	SJ25 – ID: 042	Effect Of Alloy Additions on The Microstructure and Mechanical Properties of Inconel 625 Coating by Laser Cladding	Krishnamoorthi J, Sridhar S, Madhanraj R and Sivasankari R PSG College of Technology	Sivasankari R rss.metal@psgtech.ac.in
11	SJ25 – ID: 044	Exploration of laser ablation process to remove silicon glass beads in Automotive frame component	Bhupendra Singh, KR Manikandan, TVS Motor Company	Bhupendra Singh; singh.bhupendrapratap@tvsmotor.com
12	SJ25 – ID: 048	Effect of Seam Angle on the Performance of Laser Seam Tracking– Assisted Pulsed Gas Metal Arc Welding (GMAW-P) for Mild Steel Butt Joints	Madhu Kottickal, A Sumesh, K. Ramesh Kumar; Department of Mechanical Engineering, Amrita School of Engineering, Coimbatore; Dinu Thomas, Department of Mechanical and Industrial Engineering, Abu Dhabi University, UAE	Madhu Kottickal; k_madhu@cb.students.amrita.edu
13	SJ25 – ID: 055	Influence of Laser Welding Process Parameters on Microstructure and Joint	Pravin Bhakte* and D.Narsimhachar G H Raisonni University, Saikheda, MP, India and Bajaj Steel Industries Limited, Nagpur, Maharashtra, India.	Pravin Bhakte; pravinbhakte@bajajngp.com

		Strength of Inconel 718/316L Dissimilar Welds		
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<b>Technical Session IIIA: Additive Manufacturing II</b>				
<b>S. No.</b>	<b>SOJOM25 ID</b>	<b>Paper Title</b>	<b>Authors Details</b>	<b>Corresponding Author Email Address</b>
14	SJ25-ID020	Additive Manufacturing of a Nickel Aluminium Bronze Propeller Blade Using WAAM: A Step Toward Next-Generation Marine Fabrication	Avinash Mishraa, Degala Venkata Kirana Department of Mechanical Engineering, Indian Institute of Technology Tirupati	Degala Venkata Kirana; dvkiran@iittp.ac.in
15	SJ25-ID036	Fabrication And Characterization Of Functionally Graded Material (FGM) Structure Containing Hastelloy C-276/ SS316L By Wire Arc Additive Manufacturing (WAAM)	Sivasankari R,b, Dinesh Kumar S, Mohamed Niyas A, Ashok Kumar a, Krishnamoorthi J PSG College of Technology, Coimbatore , Tamil Nadu, India	Krishnamoorthi J
16	SJ25-ID046	Critical Appraisal of Wire Arc Additive Manufacturing in Aerospace Industries: Review and Simulation Insights Using Gaussian and Goldak Heat Source Models	Anand H, A Sumesh, Sumanth P, Sumesh C. S, K Rameshkumar, Dept. of Mechanical Engineering, Amrita School of Engineering Coimbatore, Amrita Vishwa Vidyapeetham Dinu Thomas Thekkuden	Anand H; h_anand1@cb.students.amrita.edu

			Dept. of Mechanical Engineering, Abu Dhabi University 59911, Abu Dhabi	
17	SJ25-ID050	Effect Of Deposition Strategy And Post-Processing On The Microstructure And Mechanical Properties Of Wire-Arc Additive Manufactured Er70s-6 Steel	Azad Kumar Yadav, Mohan M, Tamil Prabakaran S, Vinothkumar G. Alloy Development and Advanced manufacturing Group, Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirappalli	Vinoth kumar G vinothkumar@nitt.edu
18	SJ25-ID070	Study on Hot air Oxidation resistance of Wire arc additive manufactured P91 steel	H. Sharos, S. Jerome, National institute of technology, Trichy N.Arivazhagan, VIT University, Vellore	H. Sharos sharos@tkmce.ac.in

### Technical Session IIIB: Conventional Welding Processes

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
19	SJ25-ID019	Investigation on the Mechanical Properties and Microstructure of Dissimilar TIG Welded Joint of Inconel-718 and AISI 4340 steel	Nitin Mahajan, Bharatforge	Nitin Mahajan; nitin.mahajan@bharatforge.com
20	SJ25-ID051	Optimization and Analysis of Dissimilar Butt-Welded SA 516 & SA387 steel Plates using Metal Active Gas Welding Process	Karthikeyan G, Harihara Balasubramaniam A, S.Ramesh Kumar School of Mechanical Engineering, SASTRA University, Thanjavur	S.Ramesh Kumar; rameshkumar@mech.sastra.edu

21	SJ25-ID058	A Review of Different Modes of MIG Welding Process for Cladding	Senthil Kumar C; National Institute of Technology Puducherry; senthilkumarhvf@gmail.com	Senthil Kumar C senthilkumarhvf@gmail.com
22	SJ25-ID062	Adoption of Automatic Welding Process in Nuclear Projects	B. Jagadeesan; L&T-Chennai; mohamed.nazeer@Intecc.com	B. Jagadeesan mohamed.nazeer@Intecc.com

### Technical Session III C: Non-Conventional Welding Processes

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
23	SJ25-ID014	Phase Evolution And Microstructural Characterization Of Copper And Stainless Steel 304 Dissimilar Metal Joints By Electron Beam Welding	Ajith Raj Rajendran1,*, S. J. Vijay2, Anton Savio Lewis K3  1,3 Division of Aerospace Engineering, School of Engineering and Technology, 2Division of Mechanical Engineering, School of Engineering and Technology, Karunya Institute of Technology & Sciences, Coimbatore, India	ajithraj@karunya.edu
24	SJ25-ID059	Mechanical And Metallurgical Behavior Of Double Pulse MIG Welded In 617 Plates Using Different Filler Wires	Lakshitha K, College of Engineering Guindy, Anna University <lakshitha11704@gmail.com> Raja Rishika M, College of Engineering Guindy, Anna University <rajarishika2003@gmail.com> Deepan Bharathi Kannan T, College of Engineering Guindy, Anna University tdbk23@gmail.com	Lakshitha K, College of Engineering Guindy, Anna University <lakshitha11704@gmail.com>
25	SJ25-ID067	Prediction of Bond Characteristics of Vacuum	S Prakashkumar, S Sureshbabu,	S Prakashkumar; dbtitanium25@gmail.com

		Diffusion Bonded Light Weight Blade-Rings for Aeroengine Application using Ti6Al4V Sheets with Ti6Al4V Wire Reinforcement	S Rajakumar, N Mohamad Raffi Department of Manufacturing Engineering, Faculty of Engineering and Technology (FEAT), Annamalai University	
26	SJ25-ID076	Feasibility study of Activated GTAW in STBW machine for welding of SA210-Gr.C tubes	Ramesh Babu Arigela, Dilip Kumar Singh; Bharat Heavy Electrical Limited, Trichy; Dr. S Jerome NIT-Trichy	Ramesh Babu Arigela; rameshbabuarigela@bhel.in
27	SJ25-ID082	Hotwire Gas Tungsten Arc Welding of high temperature materials	Ganesh Kumar. K Goutham C Dr Devakumaran BHEL-Trichy Dr Sathiya P NIT-Trichy Ramadoss M Technische Universitat Bergakademie Freiberg, Germany	Ganesh Kumar. K, kkganesh@bhel.in

## Day – 3 --- 01-11-2025 (Saturday)

Sessions	Time	1.11.2025 - Day 3		
<b>Session IX</b>	09.00 – 10.30 hrs.	<b>Skill Development (Each 15 minutes) (Main Hall)</b> <ol style="list-style-type: none"> <li>1. National Skill Development Corporation</li> <li>2. Tamilnadu Skill Development Corporation</li> <li>3. American Welding Society</li> <li>4. Welding Research Institute, BHEL, Trichy</li> <li>5. Fronius India Ltd.</li> <li>6. Ador Welding</li> </ol>		
<b>Tea</b>	10.30 - 11.00 hrs.	Tea		
<b>Session X</b> <b>Technical Session IVA, IVB, IVC</b>	11.00 - 12.30 hrs.	<b>Technical Session IVA (Main Hall)</b> <b>Welding in Nuclear and Heavy Industries</b> Invited Talk 12 – 20 minutes Ponnappan, SDGM, L&T Invited Talk 13 – 20 minutes S. Srikumar, Head Quality Coordinator (Retd.), GASCO (Adnoc) Contributory Papers <ol style="list-style-type: none"> <li>i. SJ25 – ID: 006</li> <li>ii. SJ25 – ID: 033</li> <li>iii. SJ25 – ID: 073</li> <li>iv. SJ25 – ID: 075</li> <li>v. SJ25 – ID: 077</li> </ol>	<b>Technical Session IVB (Hall 1)</b> <b>Welding in Automotive Industries</b> Invited Talk 14 – 20 minutes Mr. S. Srinivasan, AGM/Ashok Leyland Invited Talk 15 – 20 minutes Dr. P. Bala Srinivasan, Sr. GM/HEB, Trichy Contributory Papers - 10 min <ol style="list-style-type: none"> <li>i. SJ25 – ID: 021</li> <li>ii. SJ25 – ID: 061</li> <li>iii. SJ25 – ID: 069</li> <li>iv. SJ25 – ID: 047</li> </ol>	<b>Technical Session IVC (Hall 2)</b> <b>Welding Technology and Application – I</b> Contributory Papers <ol style="list-style-type: none"> <li>i. SJ25 – ID: 047</li> <li>ii. SJ25 – ID: 049</li> <li>iii. SJ25 – ID: 054</li> <li>iv. SJ25 – ID: 066</li> <li>v. SJ25 – ID: 071</li> </ol>
<b>Sponsors Talks -3</b>	12.40 - 13.00 hrs.	Sponsors Presentations		
<b>Lunch</b>	13.00 - 14.00 hrs.	Lawn besides MD Hall		

Sessions		Time		1.11.2025 - Day 3	
Session XI Technical Session VA and VB	14.00 - 15.30 hrs.	Technical Session VA (Main Hall) Welding Technology and Application - II Invited Talk 16 – 20 minutes Dr. K. Asokkumar, Ind. Consultant & AGM (Retd.)/ WRI Contributory Papers – 10 min i. SJ25 – ID: 009 ii. SJ25 – ID: 011 iii. SJ25 – ID: 035 iv. SJ25 – ID: 038 v. SJ25 – ID: 041 vi. SJ25 – ID: 002 vii. SJ25 – ID: 007, 025 viii. SJ25 – ID: 092	Technical Session VB (Hall 1) Welding Technology and Application – III  Accommodative Session		
		Tea & Exhibition Visits			
Session XII Valediction	16.00 – 17.30 hrs.	Main Hall			

### Session X

Technical Session IV	Venue	Session Title
Technical Session IVA	Main Hall	Welding in Nuclear and Heavy Industries
Technical Session IVB	Hall – 1	Welding in Automotive Industries
Technical Session IVC	Hall – 2	Welding Technology and Application – I

### Session XI

Technical Session V	Venue	Session Title
Technical Session VA	Main Hall	Welding Technology and Application - II
Technical Session VB	Hall – 1	Welding Technology and Application – III

## Contributory Papers Lists for Day 3 – 01-11-2025 (Saturday)

### Technical Session IV-A:Welding in Nuclear and Heavy Industries

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
1	SJ25 – ID: 006	Challenges In Fabrication Of Impeller: A Case Study	Lucky Gaur, Jitendra Kumar, BS Arora, Kiran Kumar, Bharat Heavy Electricals Limited, Haridwar kiran-ku@bhel.in	Kiran Kumar kiran-ku@bhel.in
2	SJ25 – ID: 033	Implementation Of Modular Fabrication In Nuclear Construction	B. Jagadeesan and Baladhandapani, L&T - Chennai	B. JAGADEESAN
3	SJ25 – ID: 073	Enhancing Productivity And Weld Quality In SLM and TM Drum Fabrication Using Sigmaweld Accelerated TIG (SWAT)	Prakash Kanagaraj, Prasanna Nagasai Bellamkonda, Nimesh Chinoy, Balasubramanian V SCHWING's Global Manufacturing Hub SigmaWeld, Electronics Devices Worldwide Private Limited, Mumbai, Maharashtra, Annamalai University	Prakash Kanagaraj kavinprakashraj@gmail.com
4	SJ25 – ID: 075	Fatigue Performance Of Rotating Arc Welded Quenched And Tempered (Q&T) Armour Grade Steel Joints	R.Rajpradeep, S. Malarvizhi, V. Balasubramanian, A.Hafeezur Rahman Centre for Materials Joining and Research (CEMAJOR), Department of Manufacturing Engineering, Annamalai University Combat Vehicles Research & Development Establishment (CVRDE), DRDO, Chennai	R.Rajpradeep rrp.deep@gmail.com
5	SJ25 – ID: 077	Characterization Of NiCr20Mn3nb Submerged Arc Strip Cladding On A Curved 20MnMoNi55 Plate For Nuclear Pressure Vessel Applications	Goutham. C, Ramadoss Mohan, Dr. Devakumaran. K, and Dr. Sathya. P Bharat Heavy Electrical Limited, Trichy Technische Universitat Bergakademie Freiberg, Germany National Institute of Technology, Trichy	Goutham. C goutham.c@bhel.in

## Technical Session IV-B: Welding in Automotive Industries

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
6	SJ25 – ID: 021	Optimized welding technique for controlled Heat Affected Zone (HAZ) in stress critical regions	Venugopal A, V. P. Balaji, Shanmugham Subramaniam, Karthi Sekar ZF Commercial Vehicle Control Systems India Limited, Ambattur, Chennai – 600 058	Venugopal A venugopal.a@zf.com
7	SJ25 – ID: 061	Microstructural And Mechanical Insights Into Aluminum–Steel Friction Welds With Zinc Interlayer	Sabu KT , Amal V Purushothaman , S Muthukumaran, Sunilkumar D Department of Metallurgical and Materials Engineering, National Institute of Technology Tiruchirappalli, India Department of Mechanical Engineering, National Institute of Technology, Silchar, India	Sunilkumar D sunilkumar@mech.nits.ac.in
8	SJ25 – ID: 069	Superior Weld Joint Quality Of Aa6061-T6 Aluminium Alloy Sheet By Using Cold Metal Transfer GMAW Process	Ramadoss Mohan; Technische Universitat Bergakademie Freiberg, Germany Goutham Chandramohan Devakumaran Kandasami BHEL-Trichy	Ramadoss Mohan; devakumaran@bhel.in
9	SJ25 – ID: 047	Acoustic Signature Analysis In TIG Welding Of 5083 Aluminum Using Machine Learning Models	Nandakumar B, A Sumesh, K Rameshkumar; Dept. of Mechanical Engineering, Amrita School of Engineering Coimbatore, Amrita Vishwa Vidyapeetham A Santha Kumari; BHEL-Trichy Dinu Thomas Thekkuden; Mechanical and Industrial Engineering Department, Abu Dhabi University	Nandakumar B, b_nandakumar@cb.students.amrita.edu

## Technical Session IV-C:Welding Technology and Application – I

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
10	SJ25 – ID: 049	Fusion Characteristics Study Of Inconel 718 Using RSM	Ranjith R, A Sumesh, K Rameshkumar; Amrita School of Engg. Coimbatore, Amrita Vishwa Vidyapeetham S G K Manikandan, Indian Space Research Organization Dinu Thomas Thekkuden, Mechanical and Industrial Engg. Dept ,Abudhabi University	Dinu Thomas Thekkuden; dinu.thekkuden@adu.ac.ae
11	SJ25 – ID: 054	Design And Development Of Magnetically Impelled Arc Butt Welding (MIAB) Process For Pressure Vessel Plates	Ramesh Kumar S; School of Mechanical Engineering, SASTRA Deemed to be University, Shanmugarajan B; Welding Research Institute, Bharat Heavy Electricals Ltd., Tiruchirappalli	Ramesh Kumar S bsrajan@bhel.in
12	SJ25 – ID: 066	Developing An Empirical Relationship To Predict Tensile Shear Fracture Load On Ultrasonically Welded Acrylonitrile Butadiene Styrene (ABS) Composites Reinforced With 30% Glass Fiber	S. Vani, S Sureshbabu S Rajakumar, S. Kavitha, Annamalai University, Annamalai Nagar, Chidambaram P. Hema Department of Mechanical Engineering, Sri Venkateswara University, Tirupati	S. Vani; vanisibba@gmail.com
13	SJ25 – ID: 071	Central Limit Feature Extraction With Spatiochannel Vision Transformer Learning For	E Shapna Rani, Dr M R Anantha Padmanaban; Saranathan College of Engineering, Tiruchirappalli	E Shapna Rani; shapnaedwin@gmail.com

		Weld And Cast Defect Detection	Dr R Sowmyalakshmi, Department of Electronics and Communication Engineering, University College of Engineering, BIT Campus, Tiruchirappalli	
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### Technical Session V-A: Welding Technology and Application – II

S. No.	SOJOM25 ID	Paper Title	Authors Details	Corresponding Author Email Address
14	SJ25 – ID: 009	A Method For Repairing A Valve Casing Of A Steam Turbine	Sushant Kumar Thakur, Satish Kumar, Lucky Gaur, Vivek Srivastava	Sushant Kumar Thakur, sushantkumar.thakur@bhel.in
15	SJ25 – ID: 011	Effect Of Nitrogen-Enriched Shielding Gas On Phase Balance And Mechanical Properties In TIG-Welded Super Duplex Stainless Steel (UNS S32750)	Anupriya Nallathambi, Harish Kumar S I, Girija M, Ravibharath R; WRI-BHEL-Trichy	Anupriya Nallathambi; rrbharath@bhel.in
16	SJ25 – ID: 035	Basic Artificial Intelligence For Metallurgical Design Of Acicular Ferrite In Weld Metal	Dr. K. Sampath, Independent Consultant	Dr. K. Sampath; bsrajan@bhel.in
17	SJ25 – ID: 038	Establishment Of Post Weld Treatment And Weld Bead Profiles For Enhanced Dynamic Life Of Welded HS800 Joints	Bijoy Rajak, Ashok Kumar P, Dr. Kanwer Singh Arora Research and Development, Tata steel, Jamshedpur	Bijoy Rajak; bijoy.rajak@tatasteel.com
18	SJ25 – ID: 041	Parametric Optimization Of Weld Bead Quality Of Hybrid TIG – MIG Weldment	Brij Mohan Sharma, Tapas Bajpai, Pankaj Kumar Gupta, Buddhi Prakash Panwar Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur	Tapas Bajpai, tapas.mech@mnit.ac.in

19	SJ25 – ID: 002	Development Of Metal-Cored Wires And Procedures For Forging Die Repair	Satyendra Singh Patel, and T. J. Prasadarao, D&H Sécheron Electrodes Private Limited, INDORE	b Email: tjprao@dnhsecheron.net, Mob. No. +91-9685091114
20	SJ25 – ID: 007 and SJ25 – ID: 025	Insights, Importance And Effectiveness Of Visual Testing Of Welds To Compliment Other NDT Methods In Wind Mill Tubular Steel Towers Manufacturing	Author / Presenter: T. Eswaran, Suzlon Energy Limited Author / Presenter: T. Eswaran, Suzlon Energy Limited	Author / Presenter: T. Eswaran, Suzlon Energy Limited
21		Comparative Study On Certification And Standards For Welders And Engineers In Various Popular, Widely Using National And International Codes And Standards		
22	SJ25 – ID: 092	Evaluating The Effectiveness Of Local Solution Annealing In Super 304H Coils	A SAKTHI GANESH1, N MANOJ KUMAR1, MD FAHAD1, SUDHANSHU KUMAR1, V DEEPESH1	sakthiganesh@bhel.in BHEL, Trichy