

PROFILE



1. Name and full correspondence Address : **Dr.P.SATHIYA**
Professor, Department of Production Engineering
National Institute of Technology Tiruchirappalli Tamilnadu-620015.
2. Email and contact number : psathiya@nitt.edu drsathiyapaulraj@gmail.com
Mobile: +91 9443494090, 9080765060
Landline: 0431-2503510
3. Institution : **National Institute of Technology Tiruchirappalli-620015 Tamilnadu, India**
4. Ph.D. thesis title, Institute/Organization/University, Year of Award:
Thesis Title: **Friction Welding of Similar Stainless Steels and Evaluation of Processed Joints.**
Institution: **REC (NIT) Trichy, Bharathidasan University, Tamil Nādu.**
Year of Award: **2006**

4.1 Area of Interest:

Arc based Additive manufacturing processes, Welding Technology, Solid state Joining

Materials Behaviour Subjected to Welding, Similar and Dissimilar Materials Welding

Failure Analysis of Weldments, Modelling, Simulation of Welding processes, Welding parameter optimization

5. Work experience (in chronological order).

Teaching: 26 Years

Industry : 02 Years

Sl. No	Positions held	Name of the institute	From	To
1	Professor	National Institute of Technology Tiruchirappalli	2018-03-12	Till date
2	Associate professor	National Institute of Technology Tiruchirappalli	2010-04-24	2018-03-11

3	Assistant professor	National Institute of Technology Tiruchirappalli	2007-04-24	2010-04-23
4	Lecturer	National Institute of Technology Tiruchirappalli	2006-03-29	2007-04-23
5	Assistant professor	J J College of Engineering and Technology, Trichy	2004-07-01	2006-03-28
6	Lecturer	J J College of Engineering and Technology	1999-06-14	2004-06-30
7	Lecturer	Jayam College of Engineering and Technology	1998-07-15	1999-01-13
8	Trainee	Bharat Heavy Plate & Vessels Limited	1997-03-05	1998-03-04
9	Engineer	Kareem Enterprises, Engineering (On Contract)	1994-06-04	1995-07-31

5.1.Abroad Training Programme:

TEQIP Sponsored one month training Programme undergone “Bodycote Singapore Pte. Ltd, Singapore, From 11-12-2007 to 10-01-2008.

6. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant:

S.No	Name of Award	Awarding Agency	Year
1	Young Technology Award	Indian Welding Society, Mumbai Chapter	2009
2	Best Teacher Award	National Institute of Technology Tiruchirappalli	2009
3	Raiser Innovation Award For Friction Welding	Klaus Raiser GmbH, Germany	2011
4	Best Cited paper Award	Journal of Optics and Laser Technology (Elsevier)	2012
5	Best Paper award	National conference on corrosion, surface Engineering & Tribology, held at National Institute of Technology Tiruchirappalli	2013
6	Certificate of Reviewer Contribution	International Journal of Precision Engineering and Manufacturing (Springer)	2015
7	Achiever Award	Conferred by Weld Fab Tech Pune, Mumbai	2022

7. Externally Sponsored R&D Projects

Sl. No	Title of the Project	Role (Only PI / PI / Co-PI)	Funding Agency	Duration		Amount (Rs. In Lakhs)	Status (Completed / Ongoing)
				From	To		
1	Development of surface composites of Magnesium rare earth alloy with controlled corrosion kinetics by friction stir processing for sacrificial anodic applications	Co-PI	DST-SERB-TAR, New Delhi	18-11-2022	17-11-2025	18.30	Ongoing
2	A Comparative Study on the Weldability of High Strength Aluminium-Magnesium Alloy (AA 5083)	Only PI	SERB-DST (EMEQ) New Delhi	19-02-2016	18-02-2020	49.09	Completed
3	Hybrid laser-GMAW Welding of AISI 904L Super Austenitic Stainless Steel	Only PI	DST, New Delhi	08-08-2007	01-04-2011	12.24	Completed
4	Experimental Investigation and Metallurgical Analysis of Friction Welded Duplex Stainless-Steel Joints	Only PI	CSIR, New Delhi	16-01-2013	31-01-2016	17.98	Completed

5	Study on Effect of Cryo Rolling Precipitation Hardenable AA 2219 Aluminium Alloy of Friction Stir Welding	PI	DRDL, Hyderabad	19-11-2013	12-12-2015	9.75	Completed
6	Experimental Studies and Numerical Simulations on Micro Joining of Shape Memory Alloys (NITINOL)	Only PI	MHRD- SCSP-TSP New Delhi	01-05-2014	28-04-2017	43.92	Completed

8. Total Number of Ph.D. Completed Under my supervision: (Completed : 21 Research Students, Ongoing: 05)

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
1	Thermal fatigue analysis of power plant header	Materials & Manufacturing	Thermal fatigue analysis	414915055	R Vetriseivan	08.07.2019
2	Mechanical and metallurgical characteristics of AA5083 Al-Mg alloy weldments processed by gas tungsten arc welding and laser beam welding	Welding and Characterization	GTAW & Laser beam welding of AA5083 Al-Mg alloy	414116002	M Umar	12.07.2019

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
3	Gas tungsten arc welding and laser welding processes of dissimilar Incoloy 800HT to P91 steel	Welding and Characterization	GTAW & Laser beam welding of 800 HT to P91 STEEL	414114057	V Lakshmanan	18.07.2019
4	Experimental investigations and process parameter optimization of AA 5083 aluminium alloy using spin arc gas metal arc welding process	Welding and Characterization	Spin arc GMAW process of AA 5083	414916059	V Poonguzhali	31.07.2020
5	Microstructure and Mechanical Performance of Inconel 625 Cladding deposited on 316L Austenitic Stainless Steel by Cold Metal arc Transfer and Hot Wire TIG welding processes	Welding and Characterization	CMT & Hot wire TIG welding of Inconel 625 & 316 L material	414116051	A Evangeline	25.09.2020

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
6	Experimental Study of Joining Aluminium AA6063 and Stainless Steel AISI304L Dissimilar Alloys through Rotary Friction Welding Process with Different Joining Methods and Joining Trials.	Welding and Characterization	Friction Welding of AA6063 & AISI 304 L material	414916058	S Senthil Murugan	30.07.2021
7	Experimental Investigations and Process Parameter Optimization of AA5083 Aluminium Alloy using Spin Arc Gas Metal Arc Welding Process	Welding and Characterization	Spin arc GMAW process of AA 5083	414916002	B. Pazhanivel	29.12.2021
8	Experimental investigation and analysis of laser beam welding process of Hastelloy X and its welding parameter optimization	Welding and Characterization	Laser beam welding of Hastelloy X	414917062	G Sathishkumar	11.07.2024

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
9	Experimental investigation on Spin Arc Welding of 15CDV6 HSLA steel and its parameter optimization	Welding and Characterization	Spin arc GMAW of 15CDV6 HSLA Steel	414119002	G Rajesh Kannan	26.07.2024
10	Effect of spherical ball shoulder with different tool pin profiles on the Metallurgical and Mechanical characteristics of friction stir welded AA2219-T 87 alloy	Welding and Characterization	FSW process of AA 2219-T 87 alloy	414915005	P Srinivasan	20.03.2025
11	Laser welding of AISI 904 L super austenitic stainless steel and evaluation of processed joints	Welding and Characterization	Laser beam welding of AISI 904 L Material	PRZ0412	M Y Abdul Jaleel	04.07.2011
12	Fatigue analysis in boiler components	Boiler materials & characterization	Fatigue analysis	PRK0602	Jinu G R	06.12.2009

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
13	Experimental investigation on flux cored arc welding of AISI 316 L (N) austenitic stainless steel	Welding and Characterization	FCAW of AISI 316 L (N) material	414109004	Katherasan D	12.04.2013
14	Laser weldability studies on high temperature Cr-Mo-W (P92) steel	Welding and Characterization	Laser welding of Cr-Mo-W material	414911051	B Shanmugarajan	20.07.2017
15	Experimental investigation on friction welding of UNS S3 2205 duplex stainless steel joints	Welding and Characterization	Friction welding of UNS S3 2205 Material	414112001	P M Ajith	27.11-2015
16	Comparative and experimental investigation on A-TIG, TIG and Laser welding processes of Incoloy 800 HT	Welding and Characterization	A-TIG, TIG & Laser welding of 800 HT	414112005	S Arun Kumar	25.07.2017

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
17	Mechanical and metallurgical investigation on friction welding of UNS S31803 duplex stainless steel and effects of post weld heat treatment on the processed joints	Welding and Characterization	Friction welding of UNS S31803 duplex stainless steel	414113005	M Mohammed Asif	06.09.2016
18	Experimental investigation and welding parameter optimization on gas tungsten arc welded 15 CDV 6 steel	Welding and Characterization	GTAW of 15 CDV 6 steel and its optimization	414913002	L Srinivasan	24.07.2017
19	Weld metal characterization, simulation and optimization of AA2219 alloy by gas tungsten and gas metal arc welding processes	Welding and Characterization	GTAW & GMAW processes of AA2219 and its parameter Optimization	414912004	S Arun Kumar	30.06.2016

Sl. No	Title of thesis	Major Area of Research	Minor Area of Research	Scholar		Date of Viva voce
				Roll No	Name	
20	Experimental Investigation on Laser Welding of NiTiNol Shape Memory Alloy	Welding and Characterization	Laser beam welding of NiTiNol	404114004	Deepan Bharathi Kannan T	30.10.2017
21	Experimental investigation on mechanical and metallurgical properties of friction stir welded 2219 cryo rolled aluminium alloy	Welding and Characterization	FSW of cryo rolled AA 2219	414114001	K Kamal Babu	08.11.2017

8.1 Total Number of M.S (By Research) Completed Under my supervision: (04 Candidates)

1. Name of the candidate & Roll Number: Mr Sivananthan A - 314914006
Title of the thesis: Cycle time reduction in fabrication industry using value stream mapping and method study
Date of Viva voce: 17-03-2025
2. Name of the candidate & Roll Number: Mr Sridhar S P - 314114051
Title of the thesis: Experimental investigation on A-TIG welding of Incoloy 800 H using different types of activated flux
Date of Viva voce: 25-01-2018
3. Name of the candidate & Roll Number: Mr Biju John - 318913005
Title of the thesis: A study on the effect of shielding gas on gas metal arc welding of Corten steel joints
Date of Viva voce: 10-07-2017
4. Name of the candidate & Roll Number: Mr R Vetrivelvan – 314911001
Title of the thesis: Characterization of Out of Plane distortion of nipple welding with header
Date of Viva voce: 28-07-2015

9. PUBLICATIONS: International Journal Papers in SCI/Scopus (As on July 2025):

Sl. No	Title of the Paper	Name of the Author(s)	Name of the Journal	DOI Link	Vol. No., Page No	Year
1	Additive Processes for Biodegradable Mg Alloys: A Review	Umar, Mustafa; Jayasathyakawin, Shanmugasundaram; Jackson, Abraham Maria; Balaji, Ganesan; Sathiya Paulraj	Metals and Materials International	https://doi.org/10.1007/s12540-025-01961-4	--	2025
2	Influence of friction stir processing on the metallurgical, electrochemical characteristics, and sacrificial anodic performance of magnesium–rare earth alloy Mg-1Er-1Gd	Neha, K; Dhanush, L; Vignesh, R Vaira; Sathiya, P;	Emergent Materials	DOI:10.1007/s42247-025-01078-9	--	2025
3	Sacrificial anodic performance of magnesium-erbium-ytterbium alloy reinforced with lanthanum oxide through friction stir processing	Vignesh, R Vaira; Sathiya, P; Manohar, Anem Lakshmi; Narassima, MS; Khalaf, Tamer;	Materials Letters	https://doi.org/10.1016/j.matlet.2025.138293	388,138293-135304.	2025
4	Advancements in biocompatibility and mechanical behaviour of wire arc additive manufacturing for biomedical applications	Vijayan, V; Panneerselvam, K; Sathiya, P;	Multiscale and Multidisciplinary Modeling, Experiments and Design	https://doi.org/10.1007/s41939-025-00791-6	8, 189-210.	2025
5	Influence of heat treatments on the corrosion, electrochemical, and sacrificial anodic performance of Mg-Er-Yb alloy	Teja, K Venkata Sai Krishna; Karthik, P Durga; Manohar, Anem Lakshmi;	Journal of Solid State Electrochemistry	https://doi.org/10.1007/s10008-024-06171-3	--	2024

		Manogjna, PGSSS; Vignesh, R Vaira; Shanmugasundaram, A; Sathiya, P ; Jeyaprakash, N;				
6	Fabrication of electrodeposited palladium thin-film electrodes for electrochemical sensing of acetaminophen	Ranjithkumar, Karuppaiya; Narmatha, Sivaraman; Sekar, Ramachandran; Sathiya, Paulraj ; Thangamuthu, Rangasamy; Kumar, Sakkarapalayam Murugesan Senthil;	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s10854-024-14112-z	36, 48-62	2025
7	Microstructural characterization of dissimilar laser beam welded joints between Incoloy 800HT and P91 steel	Lakshmanan, V; Arunnellaiappan, T; Sathiya, P ;	International Journal of Pressure Vessels and Piping	https://doi.org/10.1016/j.ijpvp.2024.105408	214, 105408-105421.	2025
8	Impact Energy Estimation of AISI304L/AA6063 Alloys Dissimilar Friction Welds Influenced by Various New Faying Surfaces: A Comparative Study	Murugan, S Senthil; Sathiya, P ; Kattimani, Subhaschandra;	Journal of The Institution of Engineers (India): Series D	https://doi.org/10.1007/s40033-024-00823-4	--	2024

9	Sacrificial anode materials to protect marine grade steel structures: a review	Vaira Vignesh, Ramalingam; Sathiya, P;	Corrosion reviews	https://orcid.org/0000-0002-6869-1763	42(3), 303-330	2024
10	Welding and analysis of Hastelloy X alloy butt joint made by CO2 laser	Sathishkumar, G; Murugan, S Senthil; Sathiya, P;	Welding in the World	https://doi.org/10.1007/s40194-024-01846-x	69, 311-325	2025
11	Analysis of welding hazards from an occupational safety perspective	Murugan, S Senthil; Sathiya, P;	Vietnam journal of science, technology and engineering	DOI: 10.31276/VJSTE.2023.0007	66(3), 63-74	2024
12	Development and analysis of Hastelloy-X alloy butt joint made by laser beam welding	Sathishkumar, G; Senthil Murugan, S; Sathiya, P;	Sādhanā	https://doi.org/10.1007/s12046-024-02603-y	49, 262-238	2024
13	Role of arc rotational speed and post-weld heat treatment on the microstructure and mechanical characteristics of 15CDV6 HSLA steel weld joints made by spin arc GMAW	Rajeshkannan, G; Umar, M; Deepan Bharathi Kannan, T; Sathiya, P; Sivakumar, M;	Materials Today Communications	https://doi.org/10.1016/j.mtcomm.2024.109861	40, 109861-109875	2024
14	Experimental investigation of friction stir welding with special spherical ball shoulder different probe tools and parameters for enhanced material properties of AA2219 aluminium alloy	Srinivasan, P; Kannan, G Rajesh; Sathiya, P;	Welding International	https://doi.org/10.1080/09507116.2024.2366821	38(7), 464-480	2024
15	Mechanical, wear, fatigue, and water absorption behavior of epoxy biocomposite toughened using marine waste Sepioteuthis sepioidea pen chitosan biopolymer and pineapple plain-weaved fiber	Nathan, V Boobesh; Soundararajan, R; Gandhi, B Sanjay; Sathiya, P;	Biomass Conversion and Biorefinery	https://doi.org/10.1007/s13399-024-05762-4	15, 6699-6712	2025

16	Effect of Spherical Ball Shoulder with Square Tool Pin on the Metallurgical and Mechanical Performance of Friction Stir Welded AA2219-T87 Alloy	Srinivasan, P; RajeshKannan, G; Sathiya, P;	Journal of The Institution of Engineers (India): Series D	https://doi.org/10.1007/s40033-024-00756-y	--	2024
17	Experimental investigation on microstructure and mechanical properties of 15CDV6 high strength low alloy steel welded using spin arc gas metal arc welding process	Kannan, G Rajesh; Sathiya, P; Kannan, T Deepan Bharathi; Umar, M;	Journal of Materials Engineering and Performance	https://doi.org/10.1007/s11665-024-09432-4	34, 4573-4586	2025
18	N, P and N, S dual doped carbon replicas of SBA-15 template for high performance symmetric supercapacitor	sundaram Shanmugam, Shunmuga; Duraisamy, Velu; Subramaniam, Gokulnath; Sathiya, Paulraj; Kumar, Sakkarapalayam Murugesan Senthil; Sathish, Marappan;	Journal of Energy Storage	https://doi.org/10.1016/j.est.2024.111087	85, 111087-111097	2024
19	Effect of innovative faying surfaces on dissimilar metal welds made with friction rotary joining	Senthil Murugan S, Noorul Haq A & Sathiya, P;	Welding in the World	https://doi.org/10.1007/s40194-024-01690-z	68, 1769-1781	2024
20	A review of friction welding research to address the influence, development, similar & dissimilar welding	Murugan, S Senthil; Sathiya, P;	Annals of “Dunarea de Jos” University of Galati. Fascicle	https://doi.org/10.35219/awet.2023.07	34, 65-88	2023

			XII, Welding Equipment and Technology			
21	Edge Detection and Defects Checking of Binder Clip and Welding Joint using a Python-Based Algorithm: Applications in Quality Inspection	Murugan, S Senthil; Sathiya, P ; Hariharan, K; McJone, J; Nithiyanantham, KK;	Annals of “Dunarea de Jos” University of Galati. Fascicle XII, Welding Equipment and Technology	DOI: 10.35219/awet.2 023.03	34, 25- 35	2023
22	Influence of temperature and thermal cycles on the corrosion mechanism of wrought AZ91D magnesium alloy in simulated sea water solution	Hariesh, SP; Dhanyanth, PV; Kughan, SA; Babu, Dhanush K; Vaira, Vignesh R; Sathiya, P ;	Koroze a Ochrana Materiálu	https://doi.org/10.2478/kom-2023-0009	67, 66- 77	2023
23	Correlation between microstructure and corrosion behavior of the dissimilar joints of Incoloy 800HT and P91 steel using GTAW process	Lakshmanan, V; Sathiya, P ; Arunnelliappan, T; Jeyaprakash, N;	Transaction s of the Indian Institute of Metals	https://doi.org/10.1007/s12666-023-03156-0	77(3), 685-696	2024
24	Evaluation of Mechanical and Microstructural Properties of High-Temperature Hastelloy X Alloy-Welded Joints Made by Laser Welding Process	G. Sathishkumar, P. Sathiya, S. Senthil Murugan	Journal of Testing and Evaluation	https://doi.org/10.1520/JTE2022-0653	51(6), 3947- 3967	2023

25	Welding parameter optimization by whale optimization algorithm and experimental investigation on microstructure and mechanical properties of spin arc welded 15CDV6 HSLA steel	Kannan, G Rajesh; Sathiya, P ; Kannan, T Deepan Bharathi; Kumar, M Bhuvanesh;	Metals and Materials International	https://doi.org/10.1007/s12540-023-01406-w	29, 2743-2759	2023
26	A critical review of wire arc additive manufacturing of nickel-based alloys: principles, process parameters, microstructure, mechanical properties, heat treatment effects, and defects	Bhuvanesh Kumar, Manickam; Sathiya, Paulraj ; Senthil, Sathyamangalam Munusamy;	Journal of the Brazilian Society of Mechanical Sciences and Engineering	https://doi.org/10.1007/s40430-023-04077-1	45, 164-191	2023
27	Creep and Corrosion Characteristics of Laser Welded AA5083 Al–Mg alloy	Umar, Mustafa; Mohammed Asif, M; Sathiya, Paulraj ;	Lasers in Manufacturing and Materials Processing	https://doi.org/10.1007/s40516-022-00175-5	9, 257-276	2022
28	Investigation on the microstructure and microhardness of Inconel 825 thick wall fabricated by wire arc additive manufacturing	Kumar, M Bhuvanesh; Sathiya, P ; Kannan, G Rajesh; Karthikeyan, M;	Materials Letters	https://doi.org/10.1016/j.matlet.2022.132115	317, 132115-132119	2022
29	Rotary friction welding and dissimilar metal joining of aluminium and stainless steel alloys	Murugan, S Senthil; Sathiya, P ; Haq, A Noorul;	Annals of “Dunarea de Jos” University of Galati. Fascicle XII, Welding Equipment	https://doi.org/10.35219/awet.2021.11	32, 85-92	2021

			and Technology			
30	Studies on effect of Nb segregation and formation of secondary phases of Ni–Cr–Mo clad on 316 L substrate by cold metal arc transfer process	A. Evangeline, P. Sathiya , and B. Arivazhagan	Surface Review and Letters	https://doi.org/10.1142/S0218625X22500159	29(02), 2230002 -	2022
31	Continuous drive dissimilar friction welding of wrought aluminium AA6063-T6 and austenitic stainless steel AISI304L with different welding methods and welding trials.	Murugan, S Senthil; Sathiya, P ; Haq, A Noorul;	Metallic Materials/K ovové Materiály	DOI: 10.4149/km 2021 3 161	59, 161-179	2021
32	Influence of NaCl environment on stress corrosion cracking of additive manufactured Ti-6Al-4V alloy	Pazhanivel, B; Sathiya, P ; Muthuraman, K; Sozhan, G	Engineering Failure Analysis	https://doi.org/10.1016/j.engfailanal.2021.105515	127, 105515-105527	2021
33	Methods and materials for additive manufacturing: A critical review on advancements and challenges	Kumar, M Bhuvanesh; Sathiya, P ;	Thin-Walled Structures	https://doi.org/10.1016/j.tws.2020.107228	159, 107228-107270	2021
34	Mechanical properties estimation from tensile testing of AA6063-AISI304L bimetal joints friction welded with different joining methods	S. Senthil Murugan, P. Sathiya , and A. Noorul Haq	Surface Review and Letters	https://doi.org/10.1142/S0218625X2150013X	28(04), 2150013 - 2150028	2021
35	Experimental study on the effect of silver, nickel and chromium interlayers and upset pressure in joining SS304L-AA6063 alloys through direct drive friction welding process	Senthil Murugan, S; Sathiya, P ; Noorul Haq, A;	Journal of the Brazilian Society of Mechanical Sciences and Engineering	https://doi.org/10.1007/s40430-020-02687-7	42, 611-677	2020
36	Eco-friendly frictional joining of AA6063 and AISI304L dissimilar metals and characterisation of bimetal joints	Senthil Murugan, S; Noorul Haq, A; Sathiya, P ;	Journal of New Materials for	https://doi.org/10.14447/jnmes.v23i2.a07	23(2), 101-111	2020

			Electrochemical Systems			
37	Laves phase formation and segregation of Nb in Ni–Cr–Mo superalloy over 316l by hot wire (HW) TIG cladding process	Evangeline, A; Sathiya, P; Arivazhagan, B;	Arabian Journal for Science and Engineering	https://doi.org/10.1007/s13369-020-04873-0	45, 9685-9698	2020
38	Application of ANN modelling and GA optimization for improved creep and corrosion properties of spin-arc welded AA5083-H111 alloy	Poonguzhali, V; Deepan Bharathi Kannan, T; Umar, M; Sathiya, P;	Russian Journal of Non-Ferrous Metals	https://doi.org/10.3103/S1067821220020091	61(2), 188-198	2020
39	Experimental Investigation and Optimization of Process Parameters in Laser welding of NiTiNol Shape Memory Alloys	Kannan, T Deepan Bharathi; Aravind, AP; Sathiya, P;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2020.02.118	22, 1563-1571	2020
40	Effect of welding parameters on the microstructure and mechanical properties of the friction-welded dissimilar joints of AA6063 alloy and faying surface-tapered AISI304L alloy	Murugan, Senthil S; Haq, Noorul A; Sathiya, P;	Welding in the World	https://doi.org/10.1007/s40194-020-00846-x	64, 483-499	2020
41	Ultra-fine bimodal ($\alpha + \beta$) microstructure induced mechanical strength and corrosion resistance of Ti-6Al-4V alloy produced via laser powder bed fusion process	Pazhanivel, B; Sathiya, P; Sozhan, G;	Optics & Laser Technology	https://doi.org/10.1016/j.optlastec.2019.106017	125, 106017-106028	2020
42	Parameters Optimization for end milling of Al7075–ZrO ₂ –C metal matrix composites using GRA and ANOVA	Bhuvanesh Kumar, M; Sathiya, P; Parameshwaran, R;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-020-02089-2	73(11), 2931-2946	2020
43	Dissimilar cladding of Ni–Cr–Mo superalloy over 316L austenitic stainless	Evangeline, A; Sathiya, P;	Metals and Materials	https://doi.org/10.1007/s12540-019-00440-x	27, 1155-1172	2021

	steel: morphologies and mechanical properties		International			
44	Structure–property relationships of Inconel 625 cladding on AISI 316L substrate produced by hot wire (HW) TIG metal deposition technique	Evangeline, A; Sathiya, P;	Materials Research Express	https://doi.org/10.1088/2053-1591/ab350f	6, 106539-105356	2019
45	Post Weld Heat Treatment of NiTiNol Shape Memory Alloy Using Laser Power Source	Kannan, T Deepan Bharathi; Tutta, Govindu; Sathiya, P; Ramesh, T;	Surface Review and Letters	http://dx.doi.org/10.1142/S0218625X19501609	27 (06), 1950160 - 1950170	2020
46	Cold metal arc transfer (CMT) metal deposition of Inconel 625 superalloy on 316L austenitic stainless steel: microstructural evaluation, corrosion and wear resistance properties	Evangeline, A; Sathiya, P;	Materials Research Express	https://doi.org/10.1088/2053-1591/ab0a10	6, 066516-066535	2019
47	Optimization, characterization and heat treatment of TIG-welded AA2219-T87 alloy	Arunkumar, Sivaraman; Kannan, Thangaraju Deepan Bharathi; Sathiya, Paulraj;	Emerging Materials Research	https://doi.org/10.1680/jemmr.17.00013	8 (3), 387-393	2019
48	Corrosion and creep properties of weld beads produced on AA5083-H111 alloy sheets using SpinArc GMAW process	Poonguzhali, V; Umar, M; Sathiya, P;	Metals and Materials International	https://doi.org/10.1007/s12540-019-00313-3	26, 115-129	2020
49	Microstructure and creep behavior property of dissimilar joints between Incoloy 800HT and P91 steel	Lakshmanan, V; Sathiya, P;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-019-01735-8	72(10), 2673-2686	2019
50	Effect of shielding gases in autogenous laser welding of P92 material	Shanmugarajan, B; Sathiya, P;	Transactions of the Indian	https://doi.org/10.1007/s12666-019-01638-8	72(7), 1707-1720	2019

		Buvasashekar, G;	Institute of Metals			
51	Influence of melting current pulse duration on microstructural features and mechanical properties of AA5083 alloy weldments	Umar, Mustafa; Sathiya, Paulraj;	Materials Science and Engineering : A	https://doi.org/10.1016/j.msea.2019.01.030	746, 167-1178	2019
52	The effect of ligament size on the thermal fatigue life of 9Cr1Mo steel boiler header under cold, warm and hot starts	Selvan, R Vetri; Sathiya, P; Devakumaran, K; Ravichandran, G;	Engineering Failure Analysis	https://doi.org/10.1016/j.engfailanal.2019.01.005	97, 727-739	2019
53	A comparison of the effect of different heat treatment processes on laser-welded NiTiInol sheets	Deepan Bharathi Kannan, T; Pegada, Raju; Sathiya, P; Ramesh, T;	Journal of the Brazilian Society of Mechanical Sciences and Engineering	https://doi.org/10.1007/s40430-018-1481-1	40, 562-573	2018
54	Microstructure evaluation on friction stir welding of cryorolled 2219 aluminum alloy	Kamal Babu, K; Panneerselvam, K; Sathiya, P; Noorul Haq, A; Sundarrajan, S; Mastanaiah, P; Srinivasa Murthy, CV;	Journal of Testing and Evaluation	https://doi.org/10.1520/JTE20170429	47 (4), 2827-2846	2019
55	Mechanical properties characterisation of dissimilar joint of high-temperature materials using Thermo-Calc Classic (TCC) diagram analysis	Lakshmanan, Vellaichamy; Sathiya, Paulraj; Arivazhagan, Baksha;	Materials at High Temperatures	https://doi.org/10.1080/09603409.2018.1503442	36, 1-17	2018
56	Application of genetic algorithm optimization technique in TIG welding of 15CDV6 aerospace steel	Srinivasan, L; Khan, Mohammad	Silicon	https://doi.org/10.1007/s12633-018-9862-8	11, 459-469	2019

		Chand; Kannan, T Deepan Bharathi; Sathiya, P; Biju, S;				
57	Microstructural and mechanical characterization of as weld and aged conditions of AA2219 aluminium alloy by gas tungsten arc welding process	Arunkumar, S; Sathiya, P; Devakumaran, K; Ramesh Kumar, S;	Russian Journal of Non-Ferrous Metals	https://doi.org/10.3103/s1067821218010030	59(1), 93-101	2018
58	TEM And FESEM Analysis of Dissimilar Joints of Incoloy 800 HT And P91 Steel on GTAW Process	Lakshmanan, V; Sathiya, P;	Surface Review and Letters	https://doi.org/10.1142/S0218625X18501901	26, 1850190 - 1850206	2019
59	Effect of Pulse Duration on Corrosion and Impression Creep Properties of AA5083-H111 Al-Mg Alloy Weldments Processed by P-GTAW	Umar, Mustafa; Sathiya, Paulraj;	Advanced Engineering Materials	https://doi.org/10.1002/adem.201701147	20, 1701147 - 1701157	2018
60	Effects of various tool pin profiles on mechanical and metallurgical properties of friction stir welded joints of cryorolled AA2219 aluminium alloy	Babu, Karupannan Kamal; Panneerselvam, Kavan; Sathiya, Paulraj; Haq, Abdul Haq Noorul; Sundarrajan, Srinivasan; Mastanaiah, Potta; Murthy, Chunduri Venkata Srinivasa;	Metallurgical Research & Technology	https://doi.org/10.1051/metal/2017100	115, 212-226	2018

61	Experimental and numerical investigation on thermal fatigue behaviour of 9Cr 1Mo steel tubes	Vetriselvan, R; Sathiya, P; Ravichandran, G;	Engineering Failure Analysis	https://doi.org/10.1016/j.engfailanal.2017.11.005	84, 139-150	2018
62	Influences of metastable θ'' , θ' and stable θ intermetallics formed during cryorolling and friction stir welding process on AA2219	Babu, K Kamal; Panneerselvam, K; Sathiya, P; Haq, A Noorul; Sundarrajan, S; Mastanaiah, P; Murthy, CV Srinivasa;	Journal of Alloys and Compounds	https://doi.org/10.1016/j.jallcom.2017.10.212	732, 624-629	2018
63	Parameter optimization of friction stir welding of cryorolled AA2219 alloy using artificial neural network modeling with genetic algorithm	Kamal Babu, K; Panneerselvam, K; Sathiya, P; Noorul Haq, A; Sundarrajan, S; Mastanaiah, P; Srinivasa Murthy, CV;	The International Journal of Advanced Manufacturing Technology	https://doi.org/10.1142/S0218625X18500713	94, 3117-3129	2018
64	Corrosion properties of cryorolled AA2219 friction stir welded joints using different tool pin profiles	Kamal Babu, K; Panneerselvam, K; Sathiya, P; Noorul Haq, A; Sundarrajan, S; Mastanaiah, P; Srinivasa Murthy, CV;	Surface Review and Letters	https://doi.org/10.1142/S0218625X18500713	25(6), 1850071 - 1850086	2018
65	Application of GRA and TOPSIS optimization techniques in GTA welding of 15CDV6 aerospace material	Srinivasan, L; Mohammad Chand, Khan; Deepan Bharathi Kannan, T;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-017-1166-y	71(2), 373-382	2018

		Sathiya, P; Biju, S;				
66	A comparative analysis of metallurgical and mechanical properties of friction welded and post weld heat treated (oil quenched) duplex stainless steel joints	Asif Mohammed, M; Shrikrishna, Kulkarni Anup; Sathiya, P;	Materials at High Temperatures	https://doi.org/10.1080/09603409.2017.1333669	35	2018
67	Sacrificial Anodic Performance of Mg-1Er-1Gd/Nd2O3 Composite via Friction Stir Processing	L Dhanush, K Neha, Ramalingam Vaira Vignesh, P Sathiya , Khalaf Tamer	Surface Engineering	Accepted for Publication	25, 253-261	2017
68	Experimental investigation and characterization of laser welded NiTiInol shape memory alloys	T Deepan Barathi Kannan, Sathiya, P; Ramesh, T;	Journal of Manufacturing Processes	http://dx.doi.org/10.1016/j.jmapro.2016.12.006	62(3), 1673-1679	2017
69	Effects of heat input on the mechanical and metallurgical characteristics of TIG welded Incoloy 800HT joints	Kumar, S Arun; Sathiya, P;	Archives of Metallurgy and Materials	DOI: 10.1515/amm-2017-0256	13, 77-85	2017
70	Transient out-of-plane distortion of multi-pass fillet welded tube to pipe T-joints	Vetriselvan, R; Devakumaran, K; Sathiya, P; Ravichandran, G;	Defence technology	http://dx.doi.org/10.1016/j.dt.2016.06.002	70(7), 1763-1771	2017
71	Application of artificial neural network modelling for optimization of Yb: YAG laser welding of Nitinol	Kannan, T Deepan Bharathi; Ramesh, T; Sathiya, P;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-016-0973-x	32(7), 1361-1376	2017
72	Effect of heat input, heat treatment on microstructure and mechanical properties of GTA welded aerospace material 15CDV6	Srinivasan, L; Kannan, T Deepan Bharathi; Sathiya, P; Biju, S;	Journal of Materials Research	https://doi.org/10.1557/jmr.2017.70	24(7) 1750102 - 1750115	2017

73	Effect of heat input and post-weld heat treatment on the mechanical and metallurgical characteristics of laser-welded maraging steel joints	Karthikeyan, R; Saravanan, M; Singaravel, B; Sathiya, P;	Surface Review and Letters	https://doi.org/10.1142/S0218625X17501025	4, 285-293	2017
74	Effects of mechanical, metallurgical and corrosion properties of cryorolled AA2219-T87 aluminium alloy	Babu, K Kamal; Panneerselvam, K; Sathiya, P; Haq, A Noorul; Sundarrajan, S; Mastanaiah, P; Murthy, CV Srinivasa;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.01.023	4, 2031-2039	2017
75	Optimisation of process parameters for gas tungsten arc welding of Incoloy 800HT using TOPSIS	Srirangan, Arun Kumar; Sathiya, Paulraj;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.02.048	4, 1662-1669	2017
76	Characterization and Optimization of TIG welded supermartensitic stainless steel using TOPSIS	Chellappan, M; Lingadurai, K; Sathiya, P;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.02.005	4, 1268-1276	2017
77	Metallurgical aspects and optimisation of Yb: YAG laser welded nitinol shape memory alloy	Kannan, T Deepan Bharathi; Sathiya, P; Ramesh, T;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.01.147	4,8874-8882	2017
78	Microstructure and mechanical properties of Gas tungsten arc Welded High Strength Low Alloy (15CDV6) steel joints	Srinivasan, L; Jakka, Sanjay J; Sathiya, P;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.07.238	4, 8883-8891	2017
79	Parameter design and analysis in laser welding of NiTiInol shape memory alloy	Kannan, T Deepan Bharathi; Shegokar, Abhijeet R;	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2017.07.239	24(5), 1750069 - 1750082	2017

		Sathiya, P; Ramesh, T;				
80	Shielding Gas and Heat Input Effects on the Mechanical and Metallurgical Characterization of Gas Metal Arc Welding of Super Martensitic Stainless Steel (12Cr5Ni2Mo) Joints	Prabakaran, T; Prabhakar, M; Sathiya, P;	Surface Review and Letters	https://doi.org/10.1142/S0218625X1750069X	24(01), 1750001 - 1750018	2017
81	Experimental investigation on friction stir welding of cryorolled Aa2219 aluminum alloy joints	Babu, K Kamal; Panneerselvam, K; Sathiya, P; Haq, A Noorul; Sundarrajan, S; Mastanaiah, P; Murthy, CV Srinivasa;	Surface Review and Letters	https://doi.org/10.1142/S0218625X17500019	24, 11-18	2016
82	Mechanical and metallurgical properties of autogenous laser welded P92 material	Shanmugarajan, B; Sathiya, P; Buvanashekarana, G;	Journal of Manufacturing Processes	http://dx.doi.org/10.1016/j.jmapro.2016.07.003	21, 196-200	2016
83	Effects of post weld heat treatment on friction welded duplex stainless steel joints	Mohammed Asif, Shrikrishna, Kulkarni Anup; Sathiya, P;	Journal of Manufacturing Processes	http://dx.doi.org/10.1016/j.jmapro.2015.10.005	4, 55-65	2016
84	Optimization of process parameters of friction welding of UNS S31803 duplex stainless steels joints	Asif, M Mohammed; Shrikrishna, Kulkarni Anup; Sathiya, P;	Advances in Manufacturing	https://doi.org/10.1007/s40436-015-0130-5	68(4), 1227-1239	2016
85	A review of similar and dissimilar micro-joining of nitinol	Deepan Bharathi Kannan, T; Ramesh, T; Sathiya, P;	JOM	https://doi.org/10.1007/s11837-016-1836-y	12, 343-350	2016

86	Optimisation of laser welding parameters for welding of P92 material using Taguchi based grey relational analysis	Shanmugarajan, B; Shrivastava, Rishabh; Sathiya, P; Buvanashakaran, G;	Defence Technology	https://doi.org/10.1016/j.dt.2016.04.001	31(14), 2173-2189	2016
87	Metallurgical characterizations and mechanical properties on friction welding of Incoloy 800H joints	Anand, K; Kumar, S Arun; Tamilmannan, K; Sathiya, P; Arivazhagan, B;	Journal of Materials Research	https://doi.org/10.1557/jmr.2016.161	23(3), 1650013 - 1650027	2016
88	Metallurgical And Corrosion Characterization of Post Weld Heat Treated Duplex Stainless Steel (UNS S31803) Joints by Friction Welding Process	ASIF M, MOHAMMED; Shrikrishna, Kulkarni Anup; Sathiya, P;	Surface Review and Letters	https://doi.org/10.1142/S0218625X1650013X	16, 26-37	2016
89	A study on the effect of different activating flux on A-TIG welding process of Incoloy 800H	Sridhar, SP; Kumar, S Arun; Sathiya, P;	Advances in Materials Science	https://doi.org/10.1515/adms-2016-0014	230, 1-9	2016
90	Multi-objective optimization of friction welding parameters in AISI 304L austenitic stainless steel and copper joints	Shanjeevi, C; Satish Kumar, S; Sathiya, P;	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufactur e	https://doi.org/10.1177/0954405414555590	18, 92-106	2015
91	The impact of heat input on the strength, toughness, microhardness, microstructure and corrosion aspects of	M Mohammed Asif, Shrikrishna, Kulkarni Anup;	Journal of manufacturi	http://dx.doi.org/10.1016/j.jmapro.2015.01.004	18, 394-407	2015

	friction welded duplex stainless steel joints	Sathiya, P; Goel, Sunkulp;	ng processes			
92	Artificial neural network modeling studies to predict the friction welding process parameters of Incoloy 800H joints	Anand, K; Barik, Birendra Kumar; Tamilmannan, K; Sathiya, P;	Engineering Science and Technology , an International Journal	http://dx.doi.org/10.1016/j.jestch.2015.02.001	30, 1154-1159	2015
93	Experimental investigation of the A-TIG welding process of Incoloy 800H	Kumar, Srirangan Arun; Sathiya, Paulraj;	Materials and Manufacturing Processes	https://doi.org/10.1080/10426914.2015.1019092	11, 157-165	2015
94	Multiobjective optimization of friction welding of UNS S32205 duplex stainless steel	Ajith, PM; Barik, Birendra Kumar; Sathiya, P; Aravindan, S;	Defence Technology	http://dx.doi.org/10.1016/j.dt.2015.03.001	28(7), 892-902	2015
95	A comparative study of artificial neural network and response surface methodology for optimization of friction welding of Incoloy 800 H	Anand, K; Shrivastava, Rishabh; Tamilmannan, K; Sathiya, P;	Acta Metallurgica Sinica (English Letters)	https://doi.org/10.1007/s40195-015-0273-1	19, 67-72	2015
96	Characterisation of transient out-of-plane distortion of nipple welding with header component	Selvan, R Vetri; Sathiya, P; Ravichandran, G;	Journal of Manufacturing Processes	http://dx.doi.org/10.1016/j.jmapro.2015.05.001	766-767, 884-889	2015
97	Optimization of friction welding in dissimilar materials through Taguchi based Grey Relational Analysis	Shanjeevi, C; Satish Kumar, S; Sathiya, P; Jose, Paul;	Applied Mechanics and Materials	https://doi.org/10.4028/www.scientific.net/AMM.766-767.884	11, 262-268	2015
98	Comparative study on transverse shrinkage, mechanical and metallurgical properties of AA2219 aluminium weld	Arunkumar, S; Rangarajan, P;	Defence technology		22(10), 954-960	2015

	joints prepared by gas tungsten arc and gas metal arc welding processes	Devakumaran, K; Sathiya, P;				
99	Multi-objective optimization of continuous drive friction welding process parameters using response surface methodology with intelligent optimization algorithm	Ajith, PM; Husain, TM Afsal; Sathiya, P; Aravindan, S;	Journal of Iron and Steel Research, International	http://dx.doi.org/10.1016/j.dt.2015.05.008	18, 704-712	2015
100	Finite element modelling and characterization of friction welding on UNS S31803 duplex stainless steel joints	Mohammed Asif. M, Kulkarni Anup Shrikrishana, P. Sathiya	Engineering Science and Technology , an International Journal	http://dx.doi.org/10.1016/j.jestch.2015.05.002	17(4), 908-919	2014
101	Weldability studies and parameter optimization of AISI 904L super austenitic stainless steel using friction welding	Balamurugan, Karupanan; Mishra, Mahendra Kumar; Sathiya, Paul; Sait, Abdullah Naveen;	Materials Research	http://dx.doi.org/10.1590/S1516-1439201400500099	56(3), 245-250	2014
102	Optimization of friction welding parameters of AISI 904L super austenitic stainless steel by evolutionary computational techniques	Balamurugan, Karupanan; Elies, Jiju V; Sathiya, Paul; Sait, Abdullah Naveen;	Materials Testing	https://doi.org/10.3139/120.110550	2(1), 82-91	2014
103	Characterization of microstructure, toughness, and chemical composition of friction-welded joints of UNS S32205 duplex stainless steel	Ajith, Puthuparambil Madhavan; Sathiya, Paulraj;	Friction	https://doi.org/10.1007/s40544-014-0042-6	27(6), 995-1007	2014

		Aravindan, Sivanandam;				
104	Experimental investigation on friction welding of UNS S32205 duplex stainless steel	Ajith, PM; Sathiya, P; Aravindan, S;	Acta Metallurgica Sinica (English Letters)	https://doi.org/10.1007/s40195-014-0113-8	10(2), 250-264	2014
105	Artificial neural network simulation and particle swarm optimisation of friction welding parameters of 904L superaustenitic stainless steel	Balamurugan, K; Abhilash, AP; Sathiya, P; Naveen Sait, A;	Multidiscipline Modeling in Materials and Structures	https://doi.org/10.1108/MMMS-07-2013-0050	53, 226-235	2014
106	Prediction and optimization of friction welding parameters for super duplex stainless steel (UNS S32760) joints	Udayakumar, T; Raja, K; Husain, TM Afsal; Sathiya, P;	Materials & Design	https://doi.org/10.1016/j.matdes.2013.07.002	9(2), 105-109	2014
107	Studies on impact toughness and fracture analysis of austenitic stainless steel and copper joints by friction welding	Shanjeevi C, Satish Kumar S and Sathiya P	Journal of Manufacturing Engineering	www.smenec.org	27(8), 2457-2465	2013
108	Genetic algorithm based optimization of the process parameters for gas metal arc welding of AISI 904 L stainless steel	Sathiya, P; Ajith, PM; Soundararajan, R;	Journal of Mechanical Science and Technology	https://doi.org/10.1007/s12206-013-0631-8	66(2), 123-132	2013
109	Process parameter optimization of AISI 316L (N) weld joints produced using flux-cored arc welding process	Katherasan, D; Srivastava, Sameer; Sathiya, P;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-012-0233-7	45, 46-55	2013
110	Shielding gas effect on weld characteristics in arc-augmented laser	Sathiya, P; Mishra, Mahendra	Optics & Laser Technology	http://dx.doi.org/10.1016/j.optlastec.2012.07.035	45, 43-51	2013

	welding process of super austenitic stainless steel	Kumar; Soundararajan, R; Shanmugarajan, B;				
111	Shielding gas effects on flux cored arc welding of AISI 316L (N) austenitic stainless steel joints	Katherasan, D; Sathiya, P ; Raja, A;	Materials & Design	https://doi.org/10.1016/j.matdes.2012.09.012	15,558-571	2013
112	Experimental investigation on mechanical and metallurgical properties of super duplex stainless steel joints using friction welding process	Udayakumar, T; Raja, K; Abhijit, A Tanksale; Sathiya, P ;	Journal of Manufacturing Processes	http://dx.doi.org/10.1016/j.jmapro.2013.06.010	9(3), 307-326	2013
113	Modeling and optimization of flux cored arc welding by genetic algorithm and simulated annealing algorithm	Katherasan, D; V. Elias, Jiju; Sathiya, P ; Noorul Haq, A;	Multidisciplinary Modeling in Materials and Structures	https://doi.org/10.1108/MMMS-03-2012-0008	717, 9-14	2013
114	Mechanical, metallurgical characteristics and corrosion properties of equal channel angular pressing of duplex stainless steel	Ajith, PM; Sathiya, P ; Gudimetla, Kondaiah; Ravishankar, B;	Advanced Materials Research	https://doi.org/10.4028/www.scientific.net/AMR.717.9	64, 1514-1523	2013
115	Evaluation of mechanical and metallurgical properties of dissimilar materials by friction welding	Shanjeevi, C; Kumar, S Satish; Sathiya, P ;	Procedia Engineering	https://doi.org/10.1016/j.proeng.2013.09.233	44, 1905-1914	2012
116	Optimal design for laser beam butt welding process parameter using artificial neural networks and genetic algorithm for super austenitic stainless steel	Sathiya, P ; Panneerselvam, K; Soundararajan, R;	Optics & Laser Technology	https://doi.org/10.1016/j.optlastec.2012.01.025	36, 490-498	2012

117	Optimization of laser welding process parameters for super austenitic stainless steel using artificial neural networks and genetic algorithm	Sathiya, P; Panneerselvam, K; Jaleel, MY Abdul;	Materials & Design (1980-2015)	https://doi.org/10.1016/j.matdes.2011.11.028	33, 203-212	2012
118	Effect of shielding gases on microstructure and mechanical properties of super austenitic stainless steel by hybrid welding	Sathiya, P; Mishra, Mahendra Kumar; Shanmugarajan, B;	Materials & Design	https://doi.org/10.1016/j.matdes.2011.06.065	25(1), 67-76	2012
119	Simulation and parameter optimization of flux cored arc welding using artificial neural network and particle swarm optimization algorithm	Katherasan, D; Elias, Jiju V; Sathiya, P; Haq, A Noorul;	Journal of Intelligent Manufacturing	https://doi.org/10.1007/s10845-012-0675-0	6(1), 227-234	2012
120	Flux cored arc welding parameter optimization of AISI 316L (N) austenitic stainless steel	Katherasan, D; Sashikant, Madana; Bhat, S Sandeep; Sathiya, P;	World Academy of Science, Engineering and Technology	https://doi.org/10.1007/s00170-015-7636-7	7(1), 107-112	2012
121	Mechanical and metallurgical investigation on gas metal arc welding of super austenitic stainless steel	Sathiya, P; Sudhakaran, A; Soundararajan, R;	International Journal of Mechanical and Materials Engineering	----	38, 3913-3926	2012
122	Flux cored arc welding parameter optimization using particle swarm optimization algorithm	Katherasan, D; Elias, Jiju V; Sathiya, P; Haq, A Noorul;	Procedia Engineering	https://doi.org/10.1016/j.proeng.2012.06.449	10(1), 110-127	2012

123	Analysis of metallurgical and mechanical properties of laser welded super austenitic stainless steel	Sathiya, Paulraj; Abdul Jaleel, MY; Shanmugarajan, B;	Journal of Engineering , Design and Technology	https://doi.org/10.1108/17260531211211917	4(2), 169-176	2012
124	Weld metal characterization of 316L (N) austenitic stainless steel by electron beam welding process	Joseph, Benjamin; Katherasan, D; Sathiya, P; Murthy, CV Srinivasa;	International Journal of Engineering , Science and Technology	https://doi.org/https://dx.doi.org/10.4314/ijest.v4i2.13	43, 660-673	2011
125	Optimization of laser butt welding parameters with multiple performance characteristics	Sathiya, P; Jaleel, MY Abdul; Katherasan, D; Shanmugarajan, B;	Optics & Laser Technology	https://doi.org/10.1016/j.optlastec.2010.09.007	44, 499-515	2011
126	Optimization of laser butt welding parameters based on the orthogonal array with fuzzy logic and desirability approach	Sathiya, P; Jaleel, MY Abdul; Katherasan, D; Shanmugarajan, B;	Structural and Multidisciplinary Optimization	https://doi.org/10.1007/s00158-010-0615-6	64(4-5), 409-416	2011
127	Finite element simulation of laser welding of 904L super austenitic stainless steel	Abhilash, AP; Sathiya, P;	Transactions of the Indian Institute of Metals	https://doi.org/10.1007/s12666-011-0093-6	7(1), 5-23	2011
128	Optimizing the weld pool geometry in laser welding of AISI 904 L super austenitic stainless steel using multi-	P. Sathiya, M.Y. Abdul Jaleel and D. Katherasan	Multidiscipline Modeling in Materials	DOI 10.1108/15736101111141403	42, 960-968	2010

	input/multi-output grey relational analysis		and Structures			
129	Measurement of the bead profile and microstructural characterization of a CO2 laser welded AISI 904 L super austenitic stainless steel	Sathiya, P; Jaleel, MY Abdul;	Optics & Laser Technology	https://doi.org/10.1016/j.optlastec.2010.01.015	24(5), 1067-1076	2010
130	Comparison of thermal fatigue behaviour of ASTM A 213 grade T-92 base and weld tubes	Jinu, GR; Sathiya, P; Ravichandran, G; Rathinam, A;	Journal of mechanical science and technology	https://doi.org/10.1007/s12206-010-0322-7	6(2), 206-213	2010
131	Optimizing the weld bead characteristics of super austenitic stainless steel (904L) through grey-based Taguchi method	Sathiya, P; Aravindan, S; Jeyapaul, R; Ajith, PM; Noorul Haq, A;	Multidiscipline Modeling in Materials and Structures	https://doi.org/10.1108/15736101011067993	2(6), 189-199	2010
132	Microstructural characteristics on bead on plate welding of AISI 904 L super austenitic stainless steel using gas metal arc welding process	Sathiya, P; Aravindan, S; Ajith, PM; Arivazhagan, B; Haq, A Noorul;	International Journal of Engineering , Science and Technology	https://doi.org/10.4314/ijest.v2i6.63710	2(10), 5017-5033	2010
133	Failure Analysis on t 92 Steel Tube and Compared With Predicted Number of Cycles to Failure Using Coffin–Manson Equation	Jinu, GR; Sathiya, P;	Int. Journ. of Eng. Sci. and Tech	ISSN 0975-5462	101(9), 1180-1197	2010
134	Experimental investigation of thermal fatigue behaviour of header tube to stub welded joint in power plants	Jinu, GR; Sathiya, P; Ravichandran, G; Rathinam, A;	International journal of materials research	https://doi.org/10.3139/146.110390	2009, 309529	2009
135	An Experimental Study of Thermal Fatigue on ASTM A 213 Grade T-23 Steel Tube	Jinu, GR; Sathiya, P; Ravichandran, G; Rathinam, A;	Scholarly Research Exchange	https://doi.org/10.3814/2009/309529	2009, 324572	2009

136	Simulation of weld bead geometry in GTA welded duplex stainless steel (DSS)	Sathiya, P; Jinu, GR; Singh, Navjot;	Scholarly Research Exchange	https://doi.org/10.3814/2009/324572	40, 74-83	2009
137	Investigation of the fatigue behaviour of butt-welded joints treated by ultrasonic peening process and compared with fatigue life assessment standards	Jinu, GR; Sathiya, P; Ravichandran, G; Rathinam, A;	The International Journal of Advanced Manufacturing Technology	https://doi.org/10.1007/s00170-007-1312-5	44, 114-121	2009
138	Effect of shielding gases on mechanical and metallurgical properties of duplex stainless-steel welds	Sathiya, P; S Aravindan, RSoundararajan, A Noorul Haq	Journal Materials Science	https://doi.org/10.1007/s10853-008-3098-8	209, 2576-2584	2009
139	Optimization of friction welding parameters using evolutionary computational techniques	Sathiya, P; Aravindan, S; Haq, A Noorul; Paneerselvam, K;	Journal of materials processing technology	https://doi.org/10.1016/j.jmatprotec.2008.06.030	29, 1099-1109	2008
140	Some experimental investigations on friction welded stainless steel joints	Sathiya, P; Aravindan, S; Haq, A Noorul;	Materials & Design	https://doi.org/10.1016/j.matdes.2007.06.006	4, 1-14	2008
141	Temperature Distribution Modeling of Friction Stir Spot Welding of AA 6061-T6 Using Finite Element Technique	Sathiya, P; Siva Shanmugam, N; Ramesh, T; Murugavel, R;	Multidiscipline Modeling in Materials and Structures	www.brill.nl/mms	4, 141-154	2008

142	Tensile properties of similar AISI 304 austenitic and AISI 430 ferritic stainless steels joined by friction welding	Sathiya, P; Aravindan, S; Noorul Haq, A;	Multidisciplinary Modeling in Materials and Structures	www.brill.nl/m mms	31, 1076- 1082	2007
143	Effect of friction welding parameters on mechanical and metallurgical properties of ferritic stainless steel	P Sathiya, S Aravindan, A Noorul Haq	The International Journal of Advanced Manufacturing Technology	https://doi.org/10.1007/s00170-005-0285-5	3, 309- 318	2006
144	Optimization for friction welding parameters with multiple performance characteristics	Sathiya, Paulraj; Aravindan, S; Noorul Haq, A;	International Journal of Mechanics and Materials in Design	https://doi.org/10.1007/s10999-007-9037-z	13(1), 37-44	2006
145	Optimization of friction welding parameters using simulated annealing	Sathiya, P; Aravindan, S; Haq, A Noorul; Panneerselvam, K;	Indian Journal of Engineering and Materials Sciences	https://doi.org/10.5555/20103059356	26, 505- 511	2005
146	Mechanical and metallurgical properties of friction welded AISI 304 austenitic stainless steel	Sathiya, P; Aravindan, S; Noorul Haq, A;	The International Journal of Advanced Manufacturing Technology	https://doi.org/10.1007/s00170-004-2018-6	25, 253- 261	2017

147	Influence of Friction Stir Processing on the Microstructure, Texture, and Sacrificial Anodic Performance of Mg-1Er-1Pr alloy	Selvakumar D, Sathiya P , and Vaira Vignesh R	Metallurgical and Materials Transaction B	https://doi.org/10.1007/s11663-025-03706-5		2025
-----	--	--	---	---	--	------

10. National Journal Publications (As on July 2025):

1. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Establishment of weld quality of friction weldments by evolutionary computation technique” Indian Welding Society (IWS) Journal, pp 31-40, December 2004.
2. **P.Sathiya**, S.Aravindan, A.Noorul Haq, R.Suresh Babu and M.Prakash “Influence of process parameter in metal powder addition for narrow gap submerged arc welding” Engineering Today, Vol. 8, pp.13-14, April 2005.
3. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Optimization of process parameters of friction welding by genetic algorithm” Journal of Manufacturing Technology Today (CMTI), Vol. 4, pp 9-15, February 2005.
4. P.Sathiya, S.Aravindan and A.Noorul Haq “Optimization of friction welding parameters using simulated annealing” Indian Journal of Engineering and Material Science, Vol. 13, pp. 37-44, February 2006.
5. **P.Sathiya**, N.Siva Shanmugam, S.Aravindan and A.Noorul Haq “Modeling and simulation of Submerged Arc Welding in pipe manufacturing process using finite element analysis” Indian Welding Society (IWS) Journal, pp 17-25, March 2006.
6. **P.Sathiya**, N.Sivashanmugam and T.Ramesh “Orthogonal metal cutting of SA 105 carbon steel– A fusibility study” National Journal of Manufacturing Technology & Management, Vol. 1, No.1 pp 61-68, 2007.
7. G.R.Jinu, **P.Sathiya**, G.Ravichandran, A.Rathinam and S.Suresh “An experimental study of thermal fatigue in ASTM A 213 grade T-91 steel tube”, Journal of Welding Research Institute, Vol.29 No.3, pp 17-29, 2008.

8. G.R.Jinu, **P.Sathiya**, G.Ravichandran, A.Rathinam and S.Suresh “Investigation of the thermal fatigue behavior of T-23 steel tube compared with predicted number of cycles to failure using Coffin-manson equation”, Journal of Welding Research Institute, Vol.30 No.2, pp 18-28, 2009.
9. **P.Sathiya**, K.Balamurugan, S.Aravindan and A.Noorul Haq, “ A study on mechanical and metallurgical characteristics of GTA welded modified 9 Cr 1 Mo Steel(P 91), Indian Welding Society (IWS)Journal, Vol.30 No.2, pp 18-28, 2009.
10. Ajesh Sudhakaran and **P.Sathiya**, ‘ Effect of shielding gas composition on weld metal (GMAW) properties of SA 516 Grade 70 steel’ Journal of Manufacturing Technology Today (CMTI), Vol. 9, pp 11-19, July-August 2010.
11. D.Ananthapadmanaban, **P.Sathiya**, K.Palanikumar, V.Seshagiri Rao, ‘Multi response optimization of friction welding parameters on MS-SS using grey relational analysis in the taguchi method’, National Journal of Manufacturing Technology & Management, Vol. 5, No.3 pp 49-53, 2011.
12. Benjamin Joseph, D.Katherasan, **P.Sathiya**, and C.V. Srinivasa Murthy Weld metal characterization of 316L(N) austenitic stainless steel by electron beam welding, International Journal of Engineering, Science and Technology, Vol. 4 (2) (2012), 169-176.
13. G.R.Jinu, **P.Sathiya**, G.Ravichandran and A.Rathinam, “Comparision of predicted and experimental thermal fatigue lives of T-91 steel tube”, Journal of Manufacturing Engineering, Vol. 4(2), (2009), pp 241.
14. Shanjeevi.C Satish Kumar.S, **Sathiya.P**, Studies on impact toughness and fracture analysis of austenitic stainless steel and copper joints by friction welding, Journal of manufacturing Engineering, June 2014, Vol. 9, Issue 2, pp 105-109.
15. Shanjeevi.C, Satish Kumar.S, **Sathiya.P**, Optimizing the parameter of friction welding in dissimilar material using response surface method, National Journal on Advances in Building Sciences & Mechanics, Vol.. 5 No. 1 April 2014, 1-7.
16. B.Shanmugarajan, Ramavath Bheekya Naik, G.Vimalan, **P.Sathiya**, G.Buvashekar, Physical simulation studies on laser weld heat affected zone of P92 material, Welding Research Institute (WRI) Journal Vol. 36 No. 2, April-June 2015, pp 16-23.

17. B.Shanmugarajan, G.Buvashekar and **P.Sathiya**, Weldability of 9Cr-Mo steels-A literature Review, Welding Research Institute (WRI) Journal Vol. 37 No. 4, Oct-Dec 2016, pp 18-27.

11. INTERNATIONAL CONFERENCE PRESENTED/PUBLISHED (As on July 2025):

1. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Mechanical properties and microstructures of solid wire Gas Metal Arc Welding” International conference on Digital Aided Modeling and Simulation, by Coimbatore Institute of Technology, Coimbatore, January 6-8, 2003, paper No.113, 2003.
2. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Optimization of friction welding parameters using genetic algorithm” International Welding Symposium on Emerging Trends, by IWS, February 22- 23, pp 293-303, 2003.
3. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Cryogenic treatment for friction welded 304 stainless steel” International Conference on Advances in Surface Treatment: research & applications held at International Advanced Research Centre powder metallurgy & new materials (ARCI) Hyderabad. November 3-6, pp 23, 2003.
4. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Selection of optimum welding condition and evaluation performance using friction welding behaviour” International Conference on Advances in Surface Treatment: research & applications held at International Advanced Research Centre powder metallurgy & new materials (ARCI) Hyderabad. November 3-6, pp 62, 2003.
5. **P.Sathiya**, S.Aravindan, A.Noorul Haq, G.T.Rahul & S.Sakthivel “Fuzzy modeling approach for multi-objective cellular manufacturing system design” International conference on Responsive Supply chain and organizational competitiveness, 2004 at CIT, Coimbatore.
6. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Friction welding of austenitic stainless steel and optimization of weld quality” ISRS on Materials Science and Engineering, IIT Madras, Chennai, December 20-22, pp 64, 2004.

7. **P.Sathiya**, S.Aravindan, A.Noorul Haq and K.Panneerselvam “Optimization of process parameters for friction welding of ferritic stainless steel using Taguchi Techniques” International conference on Recent Advances in Materials & Processing at PSG Technology, Coimbatore, December 15-16, pp 48, 2006.
8. **P.Sathiya**, G.R.Jinu & G.Ravichandran, “Analysis of significance of peening effect in plain carbon steel weldments using ANOVA” International conference on Advances in Manufacturing Technology, C 100, pp 90, 2008
9. **P.Sathiya**, S.Aravindan, R.Soundararajan, A.Noorul Haq “Influence on Argon Shielding Gas in GTAW of 2205 Duplex Stainless steel sheets’ International conference on Advances in Manufacturing Technology, C 91, pp 118, 2008.
10. **P.Sathiya**, S.Aravindan, P.M.Ajith and A.Noorul Haq, Optimization of bead geometry in gas metal arc welding of AISI 904 L super austenitic stainless steel using taguchi techniques. Ist International conference on welding Technologies, 09, Organized by Welding Technology Society, Gazi University, Ankara, Turkey, 11-13, June 2009, pp. 331-341.
11. **P.Sathiya**, M.Y.Abdul Jaleel, Some experimental investigations on laser welding of AISI 904 L stainless steel joints, The 3rd International Conference on Heterogeneous Material Mechanics, organized by Shanghai University, Chong Ming Island, China, 22-26 May, 2011, pp. 873-876.
12. **P.Sathiya**, M.Y.Abdul Jaleel, “Process parameter optimization of the argon shielded laser welding of super austenitic stainless steel” International Conference on Metacomputing, 15-16 December 2011, Goa, India, pp104-108.
13. D Katherasan, Madana Sashikant, S Sandeep bhat, **P Sathiya**, Flux cored arc welding parameter optimization of AISI 316 L(N) Austenitic stainless steel, World academy of science, Engineering and Technology conference, Dubai, 760, 2012.
14. P M Ajith, **P Sathiya**, Kondaiah Gudimetla, B Ravishankar, Mechanical, metallurgical characteristics and corrosion properties of equal channel angular pressing of duplex stainless steel, 2nd International conference on Key Engineering materials and computer science, Patong Beach Hotel, Phuket, Thailand, 56, 2013.

15. Birendra Kumar Barik, **P.Sathiya**, S.Aravindan, Experimental Investigations on plasma arc welding of lean super martensitic stainless steel, International Conference on All India Manufacturing Technology, Design and Research Conference to be held at IIT Guwahati, December 12-14, 2014-Accepted for Publication.
16. P.M.Ajith, **P.Sathiya**, S.Aravindan and S.Arunkumar, NSGA-II based multi objective optimization of friction welding parameters of UNS S 32205 duplex stainless steel, 2nd International conference on Advances in cutting, welding & surfacing, held at CIT, Coimbatore, August 5-7, 2015, pp 279-290.
17. Arun Kumar Srirangan, **Sathiya Paulraj**, A grey-fuzzy taguchi approach for optimizing the laser welding parameters for incoloy 800 HT joints, 17th ISME Conference on Advances in Mechanical Engineering, held at IIT Delhi, October 3-4, 2015, ISME-M-063, pp 1-6.
18. Sridhar.SP, Arun Kumar Srirangan, **P. Sathiya**, Performance evaluation of different activated flux on incoloy 800H for A-TIG welding process and characterization of the processed joints, 17th ISME Conference on Advances in Mechanical Engineering, held at IIT Delhi, October 3-4, 2015, ISME-M-065, pp 1-7.
19. Lakshmanan vellaichamy, **Sathiya Paulraj**, “Multi-response optimization of process parameters for GTAW process in dissimilar welding of Incoloy 800HT and P91 steel by using grey relational analysis”. International conference on Advances in Metallurgy, Materials and Manufacturing (ICAMMM). March, 6-8, 2017 pp. no 588-592, Government College of Engineering, Salem, Tamilnadu, India,
20. Evangeline,A & **Sathiya.P**, “An Insight on Cold Metal Arc Transfer (CMT) Cladding Process”. CDAMIES 2018, 18-20 January 2018, Department of Production Engineering, National Institute of Technology, Tiruchirappalli, India.
21. Sivananthan A, **Sathiya P**, Asokan P, Application of value stream mapping in a high-pressure boiler manufacturing Industry, International Mechanical Engineering Congress, , National Institute of Technology, Tiruchirappalli, India, 191, 2019.
22. Senthil Murugan, S; **Sathiya, P** Noorul Haq, A, Study on the dissimilar friction welding of geometrically modified faying surfaces of AA6063 & AISI304 L rods, International conference on Energy, Smart Structure and Manufacturing, Rajalakshmi Engineering College Chennai, 100E, 2022.

23. Sivananthan A, **Sathiya Paulraj**, Asokan P, A systematic approach for identifying and removing non value added elements in manufacturing industries: A case study conducted at BHEL Tiruchirappalli, Recent Advances in Industrial and system Engineering, VIT Vellore, 133, 2023.
24. **Sathiya Paulraj** and Deepak Patil, Electrochemically Assisted Growth of Organic/ Inorganic Hybrid Thin Films, European Congress on Materials Science and Engineering, Holiday Inn Amsterdam Arena Towers Netherlands, 20-21, 2025.
25. **Sathiya Paulraj**, G Sathishkumar and S Senthil Murugan, Grain structure, strength and degradation mechanisms of hastelloy x welds by laser bean welding process, European Congress on Materials Science and Engineering, Holiday Inn Amsterdam Arena Towers Netherlands, 25-26, 2025.

12. NATIONAL CONFERENCE PRESENTED/PUBLISHED (As on July 2025):

1. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Welding of stainless steel” Recent Trends in Manufacturing Technology and Management, conducted by Adhiyamaan engineering college, Hosur, January 28-29, pp 164-168, 2002.
2. A.Suresh kumar,**P.Sathiya** and T.Ramesh “Friction stir welding of aluminum Plates” MINAC-2002, conducted by JNTU, Anantapur, AP, pp465-468, 2002.
3. T.Ramesh and **P.Sathiya** “A program for performing one dimensional analysis Using FEM” National seminar on emerging trends in Mechatronics for automation, conducted by NIT,Rourkela, pp456-463, 2002.
4. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Friction welding of stainless steel” 20th AIMTDR, B.I.T., Mesra, Ranchi, December 13-15, pp 846 sec G, 2002.
5. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Effects of Shield Gas and Heat Input on Solid Wire Weld metal Properties in GMAW” National welding seminar, conducted by The Indian institute of welding, kolkata, January 22-25, pp A 32, 2003.
6. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Mechanical properties and microstructure of friction welded 304 stainless steel” National welding seminar, conducted by The Indian institute of welding, kolkata, January 22-25, pp A 33, 2003.

7. **P.Sathiya**, T.Ramesh, S.Badri Prasad and A.Pradeep “Finite Element Approach on Mechanical Properties of Steel Rod” NSVD, conducted by College of Engineering, Andhra University, Vishakapatnam, February 10 & 11, pp 118-121, 2003.
8. R.Ranzith,**P.Sathiya** and T.Ramesh, “Improvement of mechanical properties of GTA Welded ferritic stainless steel” NSVD, conducted by College of Engineering, Andhra University, Vishakhapatnam, February 10 & 11, pp 142-146, 2003.
9. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Study and Evaluation of Pulsed TIG Welding AISI 430 Ferritic Stainless Steel” National Conference on Advances in Manufacturing Technology, conducted by NSS College of Engineering, Pallakad, Kerala, February 15 & 16, pp 3, 2003.
10. **P.Sathiya**, R.Nandha Kumar, S.Madhanagopal and K.Naveen Kumar “Monitoring the Weld parameters in Robotics System using Computational Vision Analysing System ” National Conference on MEMS and Nano technology, conducted by Vellore Institute of Technology, Vellore, February 28-March 01, pp 127-132, 2003.
11. **P.Sathiya**, T.Ramesh, S.Madhanagopal and R.Nandha Kumar “A Finite Element approach – Welding of Stainless Steel” National Conference on Modeling and Simulation in Manufacturing, conducted by Annamalai University, Chidambaram, March15 & 16, pp C13-16, 2003.
12. **P.Sathiya**, T.Ramesh, J.Shankar and R.Suresh Babu “A Program to perform one dimensional heat transfer analysis” National Conference on Modeling and Simulation in Manufacturing, conducted by Annamalai University, Chidambaram, March15 & 16, pp A41-46, 2003.
13. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Theoretical analysis for the forge phase of friction welding” National workshop on welding technology in India-present status and future trends, SLIET, Longowal in collaboration with IIT Delhi & IWS, April 25-26, pp 138, 2003.
14. **P.Sathiya**, S.Udayakumar “Effect of welding parameters on thermal cycles & weld pool behaviour” National workshop on welding technology in India-present status and future trends, SLIET, Longowal in collaboration with IIT Delhi & IWS, April 25-26, pp 147, 2003.
15. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Evaluation of Stainless Steel and medium carbonated Friction Welds” National Conference on World Class Manufacturing, at Amirta Institute of Technology and Science, Coimbatore, May 7-9, pp 116-121, 2003.
16. **P.Sathiya**, S.Aravindan, A.Noorul Haq, R.Suresh Babu and M.Prakash “Influence of Process parameters in Metal Powder Addition for Narrow Gap Submerged Arc Welding Process” ISTE Chapter, at Adhiyaman Engineering College, Hosur, Sep. 8-9, pp 1.2, 2003.

17. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Pulsed MIG Welding for Boiler Tube Weld defects using Radiography and Real Time Radioscopy” National Conference on FTME (R&D), at Bharath Institute of Science and Technology, Chennai, Dec. 13-15, 2003.
18. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Study and analysis of Cryo friction weldments” Modeling and analysis of production systems, N.I.T. Tiruchirappalli, January 22-23, pp 80, 2004.
19. **P.Sathiya**, S.Aravindan ,A.Noorul Haq,A.Sathesh Babu,R.Suresh Babu “Heat flow analysis in welding by using ANSYS” Modeling and analysis of production systems, N.I.T. Tiruchirappalli, January 22-23, pp 408-412, 2004.
20. **P.Sathiya**, S.Aravindan,A.Noorul Haq & K.Padmanaban “Effect of weld parameters and flux composition on weld metal ductility of 304 S.S. weldment” Modeling and analysis of production systems, N.I.T. Tiruchirappalli, January 22-23, pp 220-225, 2004.
21. **P.Sathiya**, S.Aravindan, A.Noorul Haq “Effect of peak pulse current on the porosity formation in pulsed GMAW” Modeling and analysis of production systems, N.I.T. Tiruchirappalli, January 22-23, pp 109-114, 2004.
22. **P.Sathiya**, S.Aravindan,A.Noorul Haq,R.Sureshkumar and G.T.Rahul “Study and analysis of process parameter in metal powder addition for narrow gap submerged arc welding” XIII National conference of ISME, I.I.T. Roorkee, December30-31, PE-024, 2004.
23. **P.Sathiya**, S.Aravindan,A.Noorul Haq,A.Sureshkumar and S.Sakthivel “Metallurgical characteristics of double sided gas tungsten arc welding process” XIII National conference of ISME, I.I.T. Roorkee, December30-31, PE-022, 2004.
24. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Metallurgical characteristics of friction welded joints” Conference on Advances in Materials and Manufacturing Technology, IIT Madras, Chennai, April 2, pp 101, 2004.
25. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Joining of AISI 430 ferritic stainless steel by friction welding” SOJOM -2004, conducted by Indian Welding Society, southern zone, July 22-23, pp WMD-3, 2004.
26. V.Hariprasath,K.R.Visvanathan and **P.Sathiya** “ Finite element modeling of Welding process” National conference on Advanced in engineering design,29-30 April conducted by Bannari Amman Institute of Technology, Sathiyamangalam, pp 417-421, 2005.
27. **P.Sathiya** and P.Dinesh Babu “On-line collision avoidance trajectory planning of multiple robots using NSGA-II”National conference on Contemporary approaches in design and manufacturing, by, ACCET, Karikudi, April 21,2006, pp.4.64, 2006.

28. **P.Sathiya**, K.Jaikanesh, N.Sivashanmugam and T.Ramesh “Prediction of material behavior of single point cutting tool using finite element technique” National conference on Advances in Manufacturing Engineering, by Sona College of Technology, Salem, April 21-22 ,2006, pp.232-237, 2006.
29. **P.Sathiya**, S.Aravindan and A.Noorul Haq “Friction welding of similar stainless steels” National Welding Seminar 2006 Conducted by Indian Institute of Welding, Chennai, 24-26 November, 2006, P-46, 2006.
30. **P.Sathiya**, N.Siva Shanmugam and T.Ramesh “Temperature distribution modeling of Friction Stir Spot Welding of AA 6061-T6 using Finite Element Technique” National Welding Seminar 2006 Conducted by Indian Institute of Welding, Chennai, 24-26 November, 2006, P-47, 2006.
31. **P Sathiya**, M.Y Abdul Jaleel, Grey-Based Taguchi method for optimization of bead geometry in laser beam bead on plate welding NWS 2009-10 organized by IIW, Kolkatta chapter, P73.
32. **P.Sathiya**, M.Y.Abdul Jaleel and D.Katherasan, Optimizing the laser bead on plate welding of AISI 904 L super austenitic stainless steel using Taguchi techniques, INSAC-2009 organized by IGCAR, Kalpakkam, pp 695-706.

13. Workshop or Faculty Development program or short- term courses offered as coordinator or convener:

Sl. No	Title of the Activity	Level (National / International)	Role	Duration			Sponsoring Agency	Amount (in Rs. Lakhs)
				From	To	Days		
1	Advanced tools and techniques for research in Engineering Problems	National	Co Ordinator	18.11.2019	23.11.2019	06	AICTE-MARGDARSHAN	2 .00
2	Manufacturing and Characterization of Advanced Materials for Health Care and	National	Co Ordinator	18.11.2024	23.11.2024	06	DST-ANRF, New Delhi	2 .00

	Défense Applications							
3	Welding Course	National	Co Ordinator	04-07-2006	05-07-2006	02	TEQIP (G)	0.60
4	Recent trends in Advanced Welding Processes	National	Co Ordinator	18-07-2007	30-07-2007	13	AICTE (G)	1.16
5	Finite Element Analysis of welding	National	Co Ordinator	24-01-2008	25-01-2008	02	TEQIP (G)	0.45
6	Radiant Energy Welding Processes	National	Co Ordinator	15-03-2008	-	01	TEQIP-TDP (G)	0.21
7	Advances in Materials Processing	National	Co Ordinator	30-06-2008	12-07-2008	13	MHRD-AICTE (G)	2.00
8	Weldability of advanced materials & Newer Joining Techniques	National	Co Ordinator	29-06-2009	03-07-2009	05	AICTE -QIP (G)	0.95
9	Two days short term course on corrosion control and surface Engineering	National	Co Ordinator	18-10-2012	19-10-2012	02	Self-Supported (CECASE)	---
10	Three – One Day Colloquium on Corrosion Control and Surface Engineering: Current R&D and Industrial Scenario	National	Co Convener	10-12-2012	12-12-2012	02	Self-Supported (CECASE)	---
11	National Conference on Corrosion, Surface Engineering and	National	Convener	22-04-2013	23-04-2013	02	Self-Supported (CECASE)	---

	Tribology (CST-2013)							
12	Short term course on "Recent trends in fluid power control system and Mechatronics	National	Co Ordinator	03-06-2013	07-06-2013	05	Self-Supported (Production Engineering)	0.35
13	Workshop on Recent developments of welding processes in Manufacturing Industries	National	Co Ordinator	27-06-2013	29-06-2013	03	TEQIP-II	0.75
14	Workshop on Advances Material Processing in Past, Present and Future	National	Co Ordinator	30-06-2016	03-07-2016	04	TEQIP-II	1.21
15	34 th National convention of Production Engineers 2019 and National Seminar "Emerging Technologies in Power sector equipment manufacturing The Institution of Engineers (India)"	National	Chairman-Technical Committee	25-05-2019	26-05-2019	02	The Institution of Engineers (India)	---

14. Short-Term Courses/Seminars/ Training Programme Attended:

1. Cryogenic Technology for Metal Treatment, May 28-June 9, 2001, AICTE-ISTE, PSG College of Technology, Coimbatore.
2. Innovation and Entrepreneurship, Aug.6-17, 2001, TREC-STEP, Tiruchirappalli
3. EDM Awareness Programme, April24-26, 2002, Bannari Amman Institute of Tech., Sathiyamangalam
4. Fracture Mechanics-Theory & Practice, Nov.25-29, 2002, IISc, Bangalore.
5. Laser Assisted Micro Fabrication for MEMS, Micro optics & Nano Application, Feb. 24-28, 2003, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad
6. Dimensional Engineering & Tolerance Analysis, May12-23, 2003, REC, Tiruchirappalli.
7. Finite Element Analysis of Weldments, Aug.18, 2003, CIT, Coimbatore.
8. Introduction and Applications of Non Traditional Optimization Techniques in Operations Management, Nov.23-Dec.PSG College of Technology, Coimbatore
9. Reaching the Unreached: A Challenge to Technical Education, Dec. 27-30, 2003, Kumaraguru College of Technology, Coimbatore.
10. Emerging Trends in CAD/CAM, Dec. 1-14, 2004, National Institute of Technology, Tiruchirappalli.
11. Networking Programme under TEQIP at Department of Mechanical Engineering, NIT, Warangal from 19-23, June 2006.
12. MEMS and Smart Structures, 11-16, December 2006 at IISc, Bangalore, conducted by IISc Bangalore.
13. Short term course under QIP on “Recent Advances in Logistics and Supply Chain Management” organized by the Department of Production Engineering, NITT, from 12-16 March 2007.
14. Application of Design of experiments, October 4-6, 2007, College of Engineering, Chennai- SAEINDIA.
15. Metallurgy and materials: Today and tomorrow, February 11-15, 2008, Department of Metallurgical and materials engineering, NIT, Trichy.
16. Recent advances in industrial engineering, April 07-11, 2008, Department of Production Engineering, NIT, Trichy.

17. Fuzzy logic: Theory and engineering practices, June 16-28, 2008, Department of Mathematics & Production Engineering, NIT, Trichy.
18. Advanced joining process for sheet metals, September 19-21, 2008, IIT Bombay.
19. Recent advances in modelling and simulation of joining of materials, 29th December 2008 – 10th January, Department of Mechanical Engineering, NIT, Trichy.
20. Recent advances in materials and processing technologies, June 1-12, 2009, Department of Metallurgical and Materials Engineering, NIT, Trichy.
21. Composite materials: processing challenges and opportunities, July 13-24, 2009, Department of Production Engineering, NIT, Trichy.
22. Quantitative research techniques for engineers and researchers, 21st December 2009 – 2nd January 2010, Department of Mechanical Engineering, NIT, Trichy.
23. Teaching Learning Methodologies, August 20-22, Teaching Learning centre, IIT Madras.
24. 3rd Summer School in Tribology, June 20-23, Tribology Society of India, IIPM, Gurgaon.
25. Spoken Trilingual Proficiency in Tamil, Hindi and English, Organised by Official language implementation committee (OLIC), NIT Tiruchirappalli from 30-06-2025 to 04-07-2025.

15. Workshops Attended:

1. Energy Efficiency & Conservation, Dec.9-10, 1999, Anna University, Chennai.
2. Arc Welding of Stainless Steel, Sep.15, 2000, CIT, Coimbatore.
3. Virtual Reality Modelling Language in Cyber Space, July27, 2002, JJCET, Tiruchirappalli.
4. Thermal & Manufacturing Aspects of Composites, May 26-31, 2003, Annamalai University, Chidambaram.
5. Recent Trends in Welding Process-GMAW, Sep.24, 2005, CIT, Coimbatore.
6. MEMS and smart structures, December 11-116,2006, Institute for smart structures and systems.

7. Non-Destructive evaluation, October 12-13, 2007, Department of Physics, NIT, Trichy.
8. Non-Destructive evaluation of corrosion, May 10&11, 2008, Indian society for Non-Destructive testing, Kalpakkam chapter, Chennai.
9. Environmentally cleaner welding process, April 17&18, 2009, Annamalai University, Chidambaram.
10. Finite element method and applications in engineering using ANSYS, November 26&27, 2007, Department of Mechanical engineering, NIT, Trichy.
11. Two-week ISTE Workshop on "Thermodynamics in Mechanical Engineering", June 14-24, 2011, IIT Bombay.
12. Two-week ISTE Workshop on "Computational fluid dynamics", June 12-22, 2012, IIT Bombay.
13. Outcome based accreditation process and parameters, 16 October 2012, CARE group of Institutions, Tiruchirappalli.

16. Guests Lectures Delivered

1. Advancement in Finite Element Analysis during CFD-Anna University Sponsored Faculty Development Training Programme on 21 December 2018 by Department of Mechanical Engineering, Government College of Engineering, Sengipatti, Tanjore.
2. Two-week FDP on CE 8395- "Strength of Materials for Mechanical Engineers" Sponsored by Anna University, Chennai at University College of Engineering (Anna University Constituent College), Nagerkovil on 6 December 2018.
3. Interactive Sessions on "Hybrid and Laser Welding Processes" on 11 September 2018 at VIT Vellore
4. FDP on "Modelling and Optimization Techniques for Engineering Applications" under AICTE-QIP scheme on 12 November 2018 at AC Tech Government College of Engineering and Technology, Karaikudi, Tamil Nadu.
5. A technical session on Laser hybrid welding of super austenitic steel and its parameter optimization, under TEQIP –III sponsored National Conference on Contemporary Approaches in Design and Manufacturing CADAM-2018 on 26 April 2018 at AC Tech Government College of Engineering and Technology, Karaikudi, Tamil Nadu.

6. FDP on “Welding Parameter Optimization” under AICTE-QIP scheme on 12 November 2018 at AC Tech Government College of Engineering and Technology, Karaikudi, Tamil Nadu.
7. Excellent Contribution in “Smart India Hackathon, 2018”
8. Session chair in State Level student Projects seminar Cum Exhibition in Tamil Nadu State Council for Science and Technology, 20& 21 July 2018
9. Session Chair in CDAMIES-2018, Department of Production Engineering, National Institute of Technology, Tiruchirappalli.
10. Session Chaired a technical session in “2nd International Conference on Advances in Mechanical Engineering (ICAME-2018) at Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankullathur, Kancheepuram, Tamil Nadu.

(a) List of awards and honors conferred:

1. Young Technology Award’2009 conferred by Indian Welding Society, Mumbai Chapter.
2. Best Teacher Award’2009 Conferred by National Institute of Technology, Tiruchirappalli, Tamil Nādu.
3. Raiser INNOVATION AWARD FOR FRICTION WELDING 2011, Conferred by Klaus Raiser GmbH (Gesellschaft mit beschränkter Haftung), Zeppelining, Eberdingen-Hochdorf, Germany.
4. Best Cited paper Award 2012 for Journal of Optics and Laser Technology (ELSEVIER)
 Paper Title: "Optimization of laser butt welding parameters with multiple performance characteristics"
 Authors: **P.SATHIYA**, M.Y.ABDUL JALEEL, D.KATHERASAN, B.SHANMUGARAJAN
5. Best Paper award in National conference on corrosion, surface Engineering & Tribology, held at NITT, 2013, paper entitled on Corrosion study on flux cored arc welding of AISI 316 (L) austenitic stainless steel, authored by Dr.D.Katherasan and Dr.P.Sathiya.

6. Certificate of Reviewer Contribution, awarded on December 2015, International Journal of Precision Engineering and Manufacturing (Springer).
7. Institute Award- Production Engineering (Research Publication) 2018-2019, Conferred by National Institute of Technology, Tiruchirappalli, Tamil Nādu.
8. Best Paper Presentation award in International Welding Symposium IWS 2K18 held at Trichy during April 28-29 2018
9. Best Paper Presentation award in International Welding Symposium IWS 2K19 held at Mumbai during November 27-29 2019
10. Achiever Award 2022, awarded on 26th November, In honor of outstanding Performance & Dedication in the welding Segment, Conferred by WELDFAB TECH, PUNE, MUMBAI.

Links:

Official Webpage	: https://www.nitt.edu/home/academics/departments/prod/faculty/psathiya/
Google scholar	: https://scholar.google.co.in/citations?hl=en&user=H1jS8J4AAAAJ
Research Gate	: https://www.researchgate.net/profile/Paulraj-Sathiya
Scopus ID	: https://www.scopus.com/authid/detail.uri?authorId=23979022900
Orchid ID	: https://orcid.org/0000-0003-0447-9859
Web of science	: https://www.webofscience.com/wos/author/record/28124139
Vidwan	: https://vidwan.inflibnet.ac.in/profile/93187