

Dr. C. RAJARAJAN, M.E., Ph.D

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OBJECTIVES

I wish to work with an organization that gives more exposure and best standards to widen my knowledge. I would be an asset to the Organization for which I am working and improve my career by rendering effective contribution to the organization.

EDUCATIONAL DETAILS

Qualification	Name of College	Year of Passing	Percentage/ CGPA
Ph.D (Manufacturing Engineering)	Annamalai University	2021	7.98 (CGPA)
M.E. (Manufacturing Engineering)	Anna University	2016	7.71 (CGPA)
B.E - Mech	Annamalai University	2014	6.89 (CGPA)
H.S.C	S.K.V HSC school	2010	5.7
S.S.L.C	A.V.H. School	2008	8.2

RESEARCH EXPERIENCE

Period of Research: From November 2016(September) 2021(January) - 4.4 Years

- Worked as a project fellow (1.09.2017- 05.06.2018) in **GTRE-CARS, DRDO** sponsored project (**9.07Lakhs**). The problem for this project was given by Gas Turbine Research Establishment, (GTRE) Bengaluru.
- Senior Research Fellow (07.06.2018 - 10.06.2019) to work in a **R.V. Machine Tools (11 Lakhs)**. The problem for this project was given by **R.V Machine Tools**, Coimbatore.
- Hands-on Experience in **Testing and Characterization**: Tensile Testing, Charpy Impact Test (pendulum and drop weight), Fatigue Testing, Micro hardness Testing, Optical, and Scanning Electron Microscopy.
- Published **14 International** and **5 National** research articles.

INDUSTRY EXPERIENCE

- Worked as a Research and Development in metal joining technology **CCD Technical Solution Pvt.Ltd 09.03.2021 to 10.08.2021.**

TEACHING EXPERIENCE

- Now working as an assistant professor in the department of manufacturing engineering at **MEENAKSHI RAMASWAMY ENGINEERING COLLEGE- ARIYALUR 16.08.2021 to Now.**

RECOGNIZED RESEARCH SUPERVISOR

- **Anna University Research Supervisor ID- 4120079**
- **Research Area-** Metal joining, Mechanical Behaviour, Metallurgical Characterization, and Material science

LIST OF PUBLICATIONS IN JOURNALS

LIST OF INTERNATIONAL JOURNALS

1. Rajarajan. C, Sivaraj. P, Balasubramanian. V, (2018) **“Microstructural Characteristics and Load Carrying Capability of Resistance Spot Welded Dual-phase (DP800) Steel Joints”**, Advanced Microscopy Research, Vol. 13(1), pp. 61-64.
2. Rajarajan. C, Sivaraj. P, Seeman .M, Balasubramanian. V, (2018) **“Influence of electrode Pressure on metallurgical studies and mechanical properties of resistance spot welded dual-phase (DP800) steel joints”**, Material Today Proceeding
3. Rajarajan. C, Sivaraj. P, Balasubramanian. V, **“Optimization of Welding Parameters for Joining Dual-phase Steel”**, International Innovative Research journal of Engineering and Technology” ISSN: 2456- 1983 Vol :4 2018.
4. Sivaraj. P, Rajarajan. C, Vijay Petley, Shweta Verma and Balasubramanian V **“Mechanical and Microstructural Characteristics of Linear Friction Welded Ti-6Al-4V Alloy Joints”**, International Innovative Research journal of Engineering and Technology” ISSN: 2456- 1983 Vol :4 2018.
5. SivarajP. Hariprasath P, **Rajarajan C**, Balasubramanian V **“Analysis of grain refining and subsequent coarsening along on adjacent zone of friction stir welded armour grade aluminium alloy joints”** Mater. Res. Express 7 (2019)
6. Rajarajan. C, Sivaraj. P, Balasubramanian. V **“Microstructural Analysis of Weld Nugget Regions of Resistance Spot-welded Advance Dual-phase ($\alpha+\alpha'$) Steel Joints”** Mater. Res. Express 7 (2020)
7. Mukundhan C, Sivaraj. P, **Rajarajan. C**, Vijay Petley, Shweta Verma and Balasubramanian. V

“Effect of Oscillation Frequency on Microstructure and Tensile Properties of Linear Friction Welded Ti-6Al-4V Alloy Joints” In book: Green Materials and Advanced Manufacturing Technology

8. Rajarajan. C, Sivaraj. P, Balasubramanian. V **“Role of Welding Current on Mechanical Properties and microstructural characteristics of Resistance Spot Welded Dual Phase Steel Joints”** Physics of Metals and Metallography (2021)
9. C. Rajarajan, P. Sivaraj, S.Raja and V. Balaubramanian **“Investigation of electrode pressure parameter on mechanical properties and microstructural characteristics of spot welded DP800 steel joints”** Metallurgical Research & Technology (2022)
10. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“Resistance spot welding of advanced high-strength steel for fabrication of thin-walled automotive structural frames”** Forces in Mechanics (2022)
11. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“Investigation on microstructural features and tensile shear fracture properties of resistance spot welded advanced high strength dual phase steel sheets in lap joint configuration for automotive frame applications”** Journal of the Mechanical Behavior of Materials (2022)
12. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“Investigating the Effect of Electrode Pressure on Nugget Size, Microstructure and Tensile Shear Strength of Resistance Spot Welded Advanced High Strength Dual Phase Steel Joints”** Metallography Microstructure and Analysis (2022)
13. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“Nugget formation, microstructural features and strength of resistance spot welded cold-rolled dual-phase steel lap joints for automotive applications”** Materials Testing (2022)
14. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“The Effect of Resistance Spot Welding Parameters on Microstructure and Strength Of Dp800 Steel Joints Using Response Surface Methodology”** Advances In Materials Science (2022)

LIST OF NATIONAL JOURNALS AND PROCEEDING

1. Rajarajan. C, Sivaraj. P, Balasubramanian. V, **“An Empirical relationship for Estimating Metallurgical and Mechanical Behaviour of Resistance Spot Welded DP 800 steel joints”** Journal of Manufacturing Engineering – Vol. 14(2), pp. 16-21
2. Sivaraj P, Rajarajan C, Balasubramanian V, Vijay Petley, Shweta Verma **“Effect of forging pressure and forging time on mechanical properties and microstructural characteristics of linear friction welded Ti-6Al-4V alloy joints”** Indian Welding Journal
3. Sivaraj. P, Rajarajan. C, Balasubramanian. V, **“A mechanical and metallurgical behavior of eco-friendly linear friction welded aluminium alloy joints for aerospace application”** IPACT-2019 – EE- 003; ISBN 978-93-5351-024-4
4. Chakkaravarthi Rajarajan; Paramasivam Sivaraj; Tushar Sonar; Selvaraj Raja; Nallusamy Mathiazhagan **“Establishing empirical relationships to predict the tensile shear fracture properties of resistance spot welded advanced high strength steel lap joints”** Manufacturing Technology Today (2022)
5. Rajarajan. C, Tushar Sonar, Sivaraj. P, Balasubramanian. V **“Effect of copper electrode pressure on nugget diameter and mechanical performance of resistance spot welded thin D800 steel sheets”** Manufacturing Technology Today (2022)

LIST OF INTERNATIONAL CONFERENCES

1. Rajarajan.C, Sivaraj. P., Balasubramanian,V **“Fatigue behaviour of friction stir welded rolled thick plates of armour grade AA7075-T651 aluminium alloy joints”**, International Conference on Futuristic Innovations in Mechanical Engineering and Manufacturing Management (ICFIMEMM17) organized by M. Kumarasamy College of Engineering, Karur on 30th to 31st March 2017.
2. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Microstructural Characteristics and Load Carrying Capability of Resistance Spot Welded Dual-phase (DP800) Steel Joints”**, International Congress (IC 2017) organized by IIW Chennai during 7th to 9th December 2017.
3. Rajarajan. C, Sivaraj. P, Balasubramanian. V **“Elaborated Studies on Nugget Formation Behaviour of Resistance Spot Welded Cold Rolled Steel Joints”** in international conference on modern innovation in Nanotechnology science and engineering of materials (MINTSEM-2018) Feb 1-2nd 2018
4. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Optimization of Resistance Spot Welding Parameters for Joining Dual-phase (DP800) Steel Sheets Used in Automobiles”**, International

Symposium on Joining of Materials (SOJOM) organized by IWS and BHEL held at Trichy during 27th to 28th April 2018.

5. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Mechanical Properties and Macrostructural Characteristics of Resistance Spot Welded Dual-phase (Dp800) Steel Joints”**, International Welding Symposium (IWS 2018) by IWS on November 27-29, 2018, Mumbai.

LIST OF NATIONAL CONFERENCES

1. Rajarajan.C, Sivaraj. P., Balasubramanian,V **“Effect of Welding Current on Mechanical Properties and Microstructural Characteristics of Resistance Spot Welded Dual Phase (DP800) Steel Joints”**, National Welding Meet (NWM 2017) organized by IIW, Bengaluru on May 12th to 14th, 2017.
2. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Optimization of Welding Parameters for Joining Dual-phase Steel Using Resistance Spot Welding”**, Recent Advances in Material Science and Manufacturing Engineering (RAMME-2018) organized by Annamalai University, Chidambaram on 15-16 October 2018.
3. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Influence of welding parameters on Electrical Resistance spot welded Dual-phase DP800 Steel joints by Optimizing Technique”** Recent Trends in Material Science (RTMS-2018) organized by Annamalai University, Chidambaram on 19th-20th December 2018.
4. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“Effect of Electrode Force on Mechanical properties and Microstructural Characteristics of Resistance Spot Welded Dual Phase (DP800) Steel Joints”**, National Welding Seminar (NWS 2018) organized by IIW, Kochi on December 13th to 15th, 2018.
5. Rajarajan. C, Sivaraj. P, Balasubramanian. V. **“An Empirical relationship for Estimating Metallurgical and Mechanical Behaviour of Resistance Spot Welded DP800 Steel Joints”** Recent advances in mechanical science and technologies (RAMSAT-218) FROM 29-30 NOV-2018 Organized by government college of engineering, bargur.

LIST OF WORKSHOPS ATTENDED

1. Participated in the Faculty Development Programme (FDP) on **“Smart Materials and Fuel-Efficient Technologies for Automotives (SMFETA)”** held at Annamalai University, Chidambaram on 11th to 24th December 2017.
2. Participated in two days training programme on **“Entrepreneurship Awareness Camp (EAC)”**

held at Annamalai University, Chidambaram on 29th January 2018.

3. Participated in two days of technical events on **“Technological Hyperlink Event to Nurture, Develop, and Radiate Authentic Luminaries (THENDRAL-2018)”** held at Annamalai University, Chidambaram on 6th to 7th April 2018.
4. Participated in two days national workshop on **“Advances in Digital Additive Manufacturing (ADAM)”** held at Annamalai University, Chidambaram on 4 January 2019.
5. Participated in two-day national workshop on **“Welding of Emerging Power Plant Application Materials (WEPPAM - 2019)”** held at Annamalai University, Chidambaram on 6th and 7th September 2019.
6. One Day Workshop on **“Art of Research Writing and Plagiarism Check”** Dec 12th 2019. Annamalai University, Chidambaram.
7. One Day Workshop on **“Research Opportunities in Advances Defence Materials & Processing”** Oct 28th 2022. Annamalai University, Chidambaram.
8. AICTE Training and Learning (ATAL) Academy FDP on **“Simulation Of Weld Optimization Techniques”** from 20/11/2023 to 25/11/2023 Techniques at FACULTY OF ENGINEERING AND TECHNOLOGY Annamalai University, Chidambaram.

MEMBERSHIP IN PROFESSIONAL BODIES

- Member in Indian Welding Society (IWS)
- Member in Indian Institute of Welding (IIW)

REVIEWER IN JOURNALS

- Archives of Civil and Mechanical Engineering, Springer
- World Journal of Engineering, Emerald
- Materials Today: Proceedings, Elsevier
- Australian journal of mechanical engineering, Taylors and Francis
- SN Applied Sciences (SNAS), Springer
- Multiscale and Multidisciplinary Modeling, Experiments and Design, Springer
- International Journal on Interactive Design and Manufacturing, Springer
- Advances in manufacturing, Springer

PERSONAL SKILLS

- Reliable, Honest and Trustworthy
- Willingness to Learn
- Creative Thinking
- Highly Motivated

PERSONAL INFORMATION

Father's Name : R. Chakkaravarthi
Date of Birth & Age : 03/05/1993 & 31
Nationality : Indian
Marital Status : Married
Languages Known : Tamil & English
Hobbies : Agriculture, Playing Cricket, Volleyball, Kabadi, Reading books and Traveling.

REFERENCES

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DECLARATION

I hereby declare that the information provided above is true to the best of my knowledge.


(C. RAJARAJAN)