

## Curriculum Vitae



**Name: Dr. Tushar Madhukar Sonar**

**Address:** Row House No. 01, Orange city, Behind Best Price Walmart,  
Satara Parisar, Aurangabad – 431005, Maharashtra State, India.

**E-mail:** tushar.sonar77@gmail.com, tushar.sonar@mit.asia

**Mobile:** +91-7507491023

**Date of Birth:** 17<sup>th</sup> March 1990

### Academic Credentials

| Class / Degree | Specialization            | Institution                         | University                 | Year | % / CGPA           | Remarks     |
|----------------|---------------------------|-------------------------------------|----------------------------|------|--------------------|-------------|
| Ph.D.          | Manufacturing Engineering | Annamalai University<br>Chidambaram | Annamalai University       | 2021 | 7.5<br>Course work | First Class |
| M.Tech.        | Mechanical (Production)   | MIT<br>Aurangabad                   | Dr. B. A. M.<br>University | 2015 | 8.14               | Distinction |
| B.E.           | Mechanical Engineering    | SVIT<br>Nashik                      | Pune University            | 2013 | 61                 | First Class |
| Diploma        | Mechanical Engineering    | JTM<br>Polytechnic<br>Faizpur       | MSBTE                      | 2010 | 80.95              | Distinction |

**M. Tech. Project:** Effect of deep cryogenic treatment on surface integrity and dimensional stability of AISI D2 tool steel and AA 7075 Aluminium alloy at Upturn Precision Pvt. Ltd, Waluj, Aurangabad and Kryospace, Kharadi Pune (MS).

**Ph. D. Research:** Investigation on Gas Tungsten Constricted Arc Welding of Inconel 718 alloy for gas turbine engine applications.

#### Key Research Areas:

- Welding and Joining
- Additive Manufacturing
- Superalloys and Titanium alloys
- Advanced high strength steel, Al and Mg alloys
- Deep cryogenic treatment
- Distortion

## Experience

| Sr. No. | Organization  | Post                              | From To  | No. of Years |
|---------|---|-----------------------------------|--|--------------|
| 1.      | Maharashtra Institute of Technology Aurangabad                            | Assistant Professor Research      | 21 March 2022 to Till date                                       | ---          |
| 2.      | GEE Limited Kalyan  | Technical Manager                 | 12 <sup>th</sup> July 2021 to 31 <sup>st</sup> December 2021     | 6 Months     |
| 3.      | Centre for Materials Joining and Research (CEMAJOR), Annamalai University | ISRO Project Associate            | 1 <sup>st</sup> September 2017 to 28 <sup>th</sup> February 2021 | 3.6 Years    |
| 4.      | KCE's College of Engineering and IT Jalgaon                               | Assistant Professor               | 1 <sup>st</sup> January 2017 to 31 <sup>st</sup> July 2017       | 7 months     |
| 5.      | Maharashtra Institute of Technology Aurangabad                            | Graduate Teaching Assistant (GTA) | 9 <sup>th</sup> September 2014 to 31 <sup>st</sup> October 2015  | 1.1 Year     |

## List of Courses Taught/Teaching at UG level

- Theory of Machines
- Engineering Drawing
- Welding Metallurgy and Processes

## Membership of Professional Bodies

- **Associate Editor** for “**World Journal of Engineering – Scopus and ESCI indexed**”, Emerald Publication, From 17/01/2022 to Current date.
- **Section Editor** for “**Welding Technology Review**”, Publishing Agency of Society of Polish Mechanical Engg. and Technicians, From 17/01/2022 to Current date.
- **Editorial Board Member** for “**Journal of Digital Manufacturing Technology**”, Universal Wiser Publisher, From 22/12/2021 to Current date.
- **Review Editor** for “**Frontiers in Manufacturing Technology**”, Frontier Publication.
- **Board Member of Studies (BOS)** for Mechanical Engineering Department: Maharashtra Institute of Technology, Aurangabad (Autonomous– “A” grade by NAAC) March 2021
- **Reviewer:** Materials Science and Technology (Taylor and Francis Publication)
- **Reviewer:** Australian Journal of Mechanical Engineering (Taylor & Francis Publication)
- **Reviewer:** Journal of Iron and Steel Research International (Springer Publication)
- **Reviewer:** Energy Sources, Part A: Recovery, Utilization, and Environmental Effects
- **Reviewer:** Intermetallics (Elsevier Publication)
- **Reviewer:** Materials Performance and Characterization (ASTM International Publication)

### Computer/Software Proficiency

- ◆ MS-OFFICE
- ◆ Origin
- ◆ Design Expert

### Research Projects/Projects Guided

- ◆ Investigating post-weld heat treatment studies and high temperature properties of Inconel 718 alloy for space research applications (VSSC, ISRO Trivandrum) – Ongoing.
- ◆ Resistance Spot Welding of Advanced High Strength Dual Phase steel sheets for automotive applications (CEMAJOR, Annamalai University) – Ongoing.
- ◆ Rotary friction welding of similar and dissimilar unsymmetrical components (CEMAJOR, Annamalai University) – Ongoing
- ◆ InterPulse TIG welding of Aerospace Alloys (VSSC ISRO Trivandrum)– Completed.

### Seminar/Workshop/ Industrial Training/ STTP//FDP/CEP/Conference Attended

- ◆ One Day Online Workshop on **Transforming Heuristic Academic Research into useful Application Research (THARA - 2021)** 11<sup>th</sup> February 2021, by SIMMAS Chennai.
- ◆ One day workshop on **Joining of Dissimilar Materials (JODI)** – 17<sup>th</sup> October 2020, organized by Indian Institute of Welding (IIW) Chennai Branch.
- ◆ One day workshop on **Friction Assisted Stir Technology (FAST-2020)** - 12<sup>th</sup> September 2020, organized by Annamalai University, Chidambaram and IIW Chennai Branch.
- ◆ One-week lecture series on **Mechanical Behavior of Materials (MBM)** – 01<sup>st</sup>-06<sup>th</sup> July 2020, organized by Chennai Institute of Technology (CIT) and IIW Chennai Branch.
- ◆ Two days workshop on **Welding of Emerging Power Plant Application Materials (WEPPAM-2019)**, 6<sup>th</sup>-7<sup>th</sup>, September 2019 at Annamalai University, Chidambaram.
- ◆ One day lecture on **Welding of Nickel and Nickel Alloys, FCAW and Metal Core wires**, IIW, India-AWS Lecture Series-IX, sponsored by Mishra Dhatu Nigam Ltd. Hyderabad, on 11<sup>th</sup> February 2019, organized by Indian Institute of Technology Madras (IITM) and Indian Institute of Welding (IIW) Chennai Branch.
- ◆ Two days National Workshop on **Advances in Digital Additive Manufacturing (ADAM-2019)**, 4<sup>th</sup> and 5<sup>th</sup> January 2019, Annamalai University, Chidambaram.
- ◆ Workshop on **Weld Defects Inspection by Non-Destructive Testing (WDINDM)**, organized by Industrial Training and Consultancy Services and Indian Institute of Welding (IIW) Chennai Branch on 26<sup>th</sup> & 27<sup>th</sup> October 2018 at Maple Tree Hotel Chennai.
- ◆ Five days International Workshop on **Advancements in Welding Technology (AWT-2018)** in collaboration with University of Leicester UK, under Newton Fund Programme Higher Education Partnership-India on 19<sup>th</sup> – 23<sup>rd</sup> June 2018 at NIT Trichy.
- ◆ Eleven days FDP Programme on **Advanced Materials and Fuel-efficient Technologies**, Annamalai University Chidambaram.

- ◆ Two days workshop on **Materials Characterization and Surface Engineering** on 9<sup>th</sup> & 10<sup>th</sup> April 2015 in association with Indian Institute of Metals (IIM) Pune Chapter at Maharashtra Institute of Technology (MIT-T) Aurangabad, Maharashtra State India.

### List of Research Publications

#### **International Journals: 28 (SCIE Indexed: 13; Scopus / WOS indexed: 15)**

1. Rajarajan C., Sivaraj P., **Sonar T.**, Raja S., N. Mathiazhagan (2022) 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 Mechanical Behavior of Materials (De Gruyter Publication)**. DOI: 10.1515/jmbm-2022-0006
2. Rajarajan C., Sivaraj P., **Sonar T.**, Raja S., Mathiazhagan N. (2022) Resistance Spot Welding of Advanced High Strength Steel for fabrication of thin-walled automotive structural frames. **Forces in Mechanics (Elsevier)**. DOI: 10.1016/j.finmec.2022.100084
3. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2022) Establishing empirical relationships and process parameter optimization of tungsten inert gas welded butt joints of nickel-based alloy using statistical approach of regression analysis and response surface methodology. **Australian Journal of Mechanical Engineering (Taylor and Francis Publication)**. DOI:10.1080/14484846.2021.2022579
4. **Sonar T.**, Balasubramanian V., Venkateswaran T., Sivakumar D. (2022) Optimization of CA-TIG welding parameters to predict and maximize tensile properties of Superalloy 718 sheets for Gas Turbine applications. **Aircraft Engineering & Aerospace Technology (Emerald Publication)** **Impact Factor: 0.997** DOI: 10.1108/AEAT-09-2020-0218
5. **Sonar T.**, Balasubramanian V., Venkateswaran T., Sivakumar D., Konovalov S. (2021) Effect of Delta Straight and Delta Pulsed arc modes on weld bead geometry, microstructure and tensile properties of InterPulsed GTCA-welded Inconel 718 alloy joints for Aerospace and Nuclear applications. **Transactions of Indian Institute of Metals (Springer Publications)** 75: 503-512. **Impact Factor: 1.499**. DOI: 10.1007/s12666-021-02445-w
6. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) An Overview on Welding of Inconel 718 alloy - Effect of Welding Processes on Microstructural Evolution and Mechanical Properties of joints. **Materials Characterization (Elsevier)** 174: 110997. **Impact Factor: 4.342**. DOI: 10.1016/j.matchar.2021.110997
7. Rajendran C., Samson Jerold Samuel C., **Sonar T.** (2021) Microstructure and Tensile Properties of High Strength AA2014 Aluminium Alloy welds joined by Pulsed CMT welding process for aerospace and automotive applications. **Advances in Materials Science and Engineering (Hindawi Publication)**. **Impact factor: 1.726**. DOI: 10.1155/2021/8163164
8. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D., Manjunath A., (2021) Multi-objective Mathematical Modelling and Optimization of Delta Straight InterPulse GTCAW parameters to predict and maximize performance of High Temperature Aerospace Alloy Sheets for Structural Applications. 6:100059 **Forces in Mechanics (Elsevier)**. DOI: 10.1016/j.finmec.2021.100059

9. **Sonar T.**, Balasubramanian V., Malarvizhi S. (2021) Mitigation of Distortion in Heat Treated AA 7075 Aluminium alloy by Deep Cryogenic Processing: Distortion Analysis using Navy C-Ring Test. **Materials Testing (De Gruyter Publication)** 63(8): 758-763 **Impact Factor: 1.589**. DOI: 10.1515/mt-2020-0121
10. **Sonar T.**, Balasubramanian V., Venkateswaran T., Sivakumar D., Konovalov S. (2021) Potentiodynamic corrosion behavior and microstructural features of gas tungsten constricted arc (GTCA)-welded Superalloy 718 joints. **Materials Testing (De Gruyter Publication)** 63(12): 1116-1123. **Impact Factor: 1.589**. DOI: 10.1515/mt-2021-0052
11. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) Maximizing strength and corrosion resistance of InterPulsed TIG welded Superalloy 718 joints for Aeroengine applications. **CIRP Journal of Manufacturing Science and Technology (Elsevier)** 35: 474-493. **Impact Factor: 3.602**. DOI: 10.1016/j.cirpj.2021.07.013
12. **Sonar T.**, Malarvizhi S., Balasubramanian V. (2021) Influence of Arc Constriction Current Frequency on Tensile Properties and Microstructure of Tungsten Inert Gas Welded Thin Sheets of Aerospace Alloy. **Transactions of Non-Ferrous Metals Society of China (Elsevier)** 31: 456-474. **Impact Factor: 2.917** DOI: 10.1016/S1003-6326(21)65509-7
13. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) Microstructural evolution and grain refinement in Gas Tungsten Constricted Arc Welded Inconel 718 alloy joints-Mechanism and segregation analysis. **Physics of Metals and Metallography (Springer Publications)** 122: 1358-1366. **Impact Factor: 0.877**. DOI: 10.1134/S0031918X21130093
14. **Sonar T.**, Balasubramanian V., Venkateswaran T., Sivakumar D. (2021) Effect of Welding Parameters on Microstructure and Tensile Properties of CA-TIG welded AMS-5596 grade Thin High Temperature alloy sheets for Gas Turbine Engine Applications. **Advances in Industrial & Manufacturing Engineering (Elsevier)**. DOI: 10.1016/j.aime.2021.100035
15. S. Kalidass, S. Gnanasekaran, A R Akilesh, N T Gokul Kumar, M Aswin, C. Rajendran, **Sonar T.**, (2021) Investigation of Shoulder diameter to Sheet Thickness (D/T) Ratio on Tensile Properties of Friction Stir Welded AA2014-T6 Aluminium Alloy Joints, **Advances in Materials and Processing Technologies**. DOI: 10.1080/2374068X.2021.1970988
16. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) Influence of Magnetically Constricted Arc Traverse Speed (MCATS) on Tensile Properties and Microstructural Characteristics of Welded Inconel 718 alloy sheets. **Defence Technology (Elsevier Publication)**. **Impact Factor: 3.172**. DOI: 10.1016/j.dt.2020.07.009
17. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) Influence of InterPulsed TIG (IP-TIG) welding parameters on microstructural evolution and tensile properties of Su-718 alloy sheets. **Materials Performance and Characterization (ASTM Publication)** 10(2): 291-321. DOI: 10.1520/MPC20200083
18. Bashkar R., Balasubramanian V., **Sonar T.**, Mani C. (2021) Establishing Empirical Relationship between Welding Current and Weld Metal Deposition Rate for Submerged Arc Welding Process. **Multiscale, Multidisciplinary Modelling, Experiments and Design (Springer Nature Publication)**. DOI: 10.1007/s41939-021-00094-6
19. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Effect of Delta Current and Delta Current Frequency on Microstructure and Tensile properties of Gas Tungsten Constricted Arc (GTCA) welded Inconel 718 sheets. **Metallurgical and Materials**

- Transactions A (Springer Publication)** 51: 3920-3937. **Impact Factor: 2.556.** DOI: 10.1007/s11661-020-05853-7
20. **Sonar T.,** Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Development of Three-Dimensional (3D) response surfaces to maximize yield strength and elongation of InterPulsed TIG (IP-TIG) welded High Temperature Alloy sheets for Jet Engine applications. **CIRP Journal of Manufacturing Science and Technology (Elsevier)** 31: 628-642. **Impact Factor: 3.602.** DOI: 10.1016/j.cirpj.2020.09.003
  21. **Sonar T.,** Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Effect of Heat Input on Evolution of Microstructure and Tensile Properties of Gas Tungsten Constricted Arc welded Inconel 718 alloy joints. **Metallography Microstructure and Analysis (Springer Publication)** 9: 369-392. DOI: 10.1007/s13632-020-00654-1
  22. **Sonar T.,** Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Microstructural Characteristics and Tensile Properties of Gas Tungsten Constricted Arc (GTCA) welded Inconel 718 superalloy sheets for Gas Turbine Engine Components. **Materials Testing (De Gruyter Publication).** 62(11):1099-1108. **Impact Factor: 1.589.** DOI: 10.3139/120.111576
  23. **Sonar T.,** Malarvizhi S., Balasubramanian V. (2020) Influence of Arc Constriction Current (ACC) on Microstructural Evolution and Tensile Properties of Tungsten Inert Gas Welded Thin Sheets of Aerospace Alloy. **Australian Journal of Mechanical Engineering (Taylor & Francis Publications).** DOI: 10.1080/14484846.2020.1794512
  24. **Sonar T.,** Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Multi-response Mathematical Modelling, Optimization and Prediction of Weld Bead Geometry in Gas Tungsten Constricted Arc Welding of Inconel 718 alloy sheets for aero engine components. **Multiscale, Multidisciplinary Modelling, Experiments and Design (Springer Nature Publication)** 3: 201-226. DOI: 10.1007/s41939-020-00073-3
  25. **Sonar T.,** Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2019) Effect of Delta Current and Delta Current Frequency on Tensile properties and Microstructure of Gas Tungsten Constricted Arc (GTCA) welded Inconel 718 sheets. **Journal of the Mechanical Behavior of Materials (Walter de Gruyter GmbH Publication)** 28(1): 186–200. DOI: 10.1515/jmbm-2019-0020
  26. **Sonar T.,** Lomte S., Gogte C., Balasubramanian V. (2018) Minimization of Distortion in Heat Treated AISI D2 Tool Steel: Mechanism and Distortion Analysis. **Procedia Manufacturing (Elsevier)** 20: 113-118. DOI: 10.1016/j.promfg.2018.02.016
  27. **Sonar T.,** Lomte S., Gogte C. (2018) Cryogenic Treatment of Metal-A Review. **Materials Today Proceedings (Elsevier)** 5(11):25219-25228. DOI: 10.1016/j.matpr.2018.10.324
  28. Bashkar R., Balasubramanian V., **Sonar T.,** Mani C. (2021) Influence of welding current on the characteristics of weld deposits made by Submerged Arc Welding Process using Metal Cored Tubular Wire. **IOP Conference Series: Materials Science and Engineering. (IOP Publication)** (Accepted on 2<sup>nd</sup> February 2021)

### **National Journals: 05**

29. Rajarajan C., Sivaraj P., **Sonar T.,** Raja S., Mathiazhagan N. (2021) Establishing empirical relationships to predict the tensile shear fracture properties of Resistance Spot Welded of

Advanced High Strength Steel Lap joints. **Manufacturing Technology Today (MTT), CMTI Publications Bangalore.**

30. **Sonar T.**, Balasubramanian V., Malarvizhi S., Dusane N., (2021) Role of IoT and AI in Welding Industry 4.0, **Indian Welding Journal (IIW Publications).**
31. **Sonar T.**, Balasubramanian V., Malarvizhi S., Dusane N., Sivamaran V. (2021) Indian railways on fast track with Welding 4.0: Application of Internet of Things and Artificial Intelligence, **Manufacturing Technology Today, CMTI Publication, Bangalore.**
32. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2020) Effect of Delta Current Frequency (DCF) on Microstructure and Tensile properties of Gas Tungsten Constricted Arc (GTCA) welded Inconel 718 Alloy Joints, **Indian Welding Journal (IIW Publications)**, 53(2): 65-74. DOI: 10.22486/iwj.v53i2.195584
33. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2019) Effect of Delta Current on the microstructure and tensile properties of Gas Tungsten Constricted Arc welded Inconel 718 alloy joints, **Manufacturing Technology Today (MTT), CMTI Publications Bangalore**, 18 (5): 48-60.

### **Magazine articles: 02**

1. **Sonar T.**, Application of Internet of Things (IoT) and artificial intelligence (AI) in welding Industry 4.0, **Weld Fabtech Times magazine**, June-July 2021 issue.
2. **Sonar T.**, Problems in joining of Inconel 718 alloy, **Weld Fabtech Times magazine**, January-February 2022 issue.

### **National and International Conferences: 14**

1. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. (2021) Maximizing strength and corrosion resistance of InterPulsed TIG welded Superalloy 718 joints for Aeroengine applications. **National Seminar on Welding Science and Technology (NSWEST-2021, Webinar mode, 23<sup>rd</sup> and 24<sup>th</sup> July 2021.**
2. Bashkar R., Balasubramanian V., **Sonar T.**, Mani C. (2021) National Seminar on Welding Science and Technology (NSWEST-2021). Webinar mode. 23<sup>rd</sup> and 24<sup>th</sup> July 2021.
3. Participated in **National Welding Meet (NWM-2021-Online)**, 7<sup>th</sup> and 8<sup>th</sup> October 2021, Indian Institute of Welding (IIW) Trichy Branch.
4. Participated in **National Welding Seminar (NWS-2020-21), Webinar mode**, Evolvement of digitization and automation in Welding – Industry 4.0. 8<sup>th</sup> to 10<sup>th</sup> April 2021.
5. Bashkar R., Balasubramanian V., **Sonar T.**, Mani C. (2021) Influence of welding current on the characteristics of weld deposits made by Submerged Arc Welding Process using Metal Cored Tubular Wire. **International Conference on Advances in Materials and Manufacturing (ICAMM-2021)**, 18th-19th February 2021, Chennai.
6. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Effect of Heat Input on Evolution of Microstructure and Tensile Properties of GTCA welded Inconel 718 alloy joints, **5th International Congress**, 6th-7th February 2020, Mumbai.
7. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Effect of Delta Current on Microstructure and Tensile Properties of Gas Tungsten Constricted Arc (GTCA)

welded Inconel 718 alloy sheets, Poster Presentation in **International Symposium on Advanced Materials for Industrial and Societal Applications (NMD-ATM2019)**, 13th to 16th November 2019, Thiruvananthapuram.

8. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Effect of Delta Current and Delta Current Frequency on the tensile properties and microstructural characteristics of Gas Tungsten Constricted Arc (GTCA) welded Inconel 718 alloy joints, **International Conference on Advanced Materials and Processes for Defence Applications (ADMAT-2019)**, 23rd to 25th September 2019, Hyderabad.
9. **Sonar T.**, Balasubramanian V., Venkateswaran T., Sivakumar D. Gas Tungsten Constricted Arc Welding of Nickel base Superalloy, **International Conference on Advances in Manufacturing for Strategic Sectors (AMSA-2019)**, 3rd - 4th March 2019, Hyderabad.
10. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Influence of Delta Current Frequency on the tensile properties and microstructural characteristics of Gas Tungsten Constricted Arc welded Inconel 718 Joints, **International Welding Symposium (IWS-2018)**, 27th – 29th November 2018, Mumbai.
11. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Effect of Delta Current on the microstructure and mechanical properties of Gas Tungsten Constricted Arc welded Inconel 718 Joints, **International Symposium on Joining of Materials (SOJOM-2018)**, 27th – 28th April 2018, Trichy.
12. **Sonar T.**, Balasubramanian V., Malarvizhi S., Venkateswaran T., Sivakumar D. Influence of Delta Current Frequency on the tensile properties and microstructural characteristics of Gas Tungsten Constricted Arc welded Inconel 718 Joints, **National Welding Seminar by Indian Institute of Welding (NWS-2018)**, Cochin, Kerala State, India.
13. **Sonar T.**, Lomte S., Gogte C., Minimization of Distortion in Heat Treated AISI D2 Tool Steel: Mechanism and Distortion Analysis. **2nd International Conference on Materials Manufacturing and Design Engineering**, Aurangabad, Maharashtra State, India, 2018.
14. **Sonar T.**, Lomte S., Gogte C. Cryogenic Treatment of Metal-A Review. **International Conference on Advances in Materials and Manufacturing Applications**, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka State, India, 2017.

#### **Awards, Achievements and Recognition**

- ISRO RESPOND Research Fellowship (No. ISRO/RES/3/728/16-17) from Indian Space Research Organization (ISRO), Department of Space, India.
- Best Ph.D. Thesis Award on 18<sup>th</sup> April 2022 from Annamalai University, Chidambaram, Tamil Nadu State, India

**Date: 31-03-2022**

**Place: Aurangabad**