

Resume

NAME: *Dr. SAURAV DATTA*

PERMANENT ADDRESS:

Shaili Apartment, 2nd Floor, Flat No. 3B,
153, Ajanta Road, New Sontoshpur, Kolkata-700075, West Bengal, INDIA
Ph.: +91 (033) 2416-5942

ADDRESS FOR COMMUNICATION:

OFFICE:

Department of Mechanical Engineering, New Mechanical Science Building
National Institute of Technology (NIT), Rourkela, Odisha 769008, INDIA
Ph.: +91 (661) 246-2524, Ex. (0661) 246-2500, FAX: (0661) 2472926

RESIDENCE:

FR/24, NIT Campus, Rourkela, Odisha 769008, INDIA
Ph.: +91 (661) 246-3524

Email: sdatta@nitrrkl.ac.in, sdattaju@gmail.com, s_bppimt@yahoo.com

PERSONAL INFORMATION

DATE OF BIRTH: 30th October 1980

FATHER'S NAME: Sri Sanjiban Datta

SEX: Male

AGE: 43+

NATIONALITY: Indian

RELIGION: Hinduism

EDUCATIONAL QUALIFICATION

Exam/Degree	Institute/University	Field	Year	% Marks
Ph. D. (Engg.)	Jadavpur University DOR: 19.08.2005 DOS: 26.03.2008	Welding Technology (Production Engg.)	Awarded on 24 th December, 2008	-
B. E. (Hons.)	Jadavpur University	Mechanical Engineering	2003	80.1%
Higher Secondary (WBCHSE)	Jodhpur Park Boys High School, Kolkata	Science	1999	85.8%
Madhyamik (WBBSE)	Jodhpur Park Boys High School, Kolkata	General	1997	90.0%

EMPLOYMENT RECORD AND EXPERIENCE

Organization	Period		Designation
	From	To	
National Institute of Technology, Rourkela, Orissa-769008	11/08/2008	01/02/2018	Assistant Professor (Mechanical Engineering)
National Institute of Technology, Rourkela, Orissa-769008	02/02/2018	30/06/2024	Associate Professor (Mechanical Engineering)
National Institute of Technology, Rourkela, Orissa-769008	01/07/2024	Continuing	Professor (Mechanical Engineering)

AREA OF RESEARCH:

Modeling and Optimization of Production Processes, Decision and Information Sciences, Supply Chain Management

MEMBERSHIP:

Life Associate Member of Indian Institute of Welding (IIW)
Membership Number: AM/R-9491

OTHER ASSIGNMENT(S):

1. Editorial Board Member in the **Journal for Manufacturing Science and Production (JMSP)**, International Publishing House Walter DeGruyter GmbH, & Co., KG, Berlin, Germany. [<http://www.degruyter.de/journals/jmsp/detailEn.cfm?sel=he>]
[Indexed by Thomson Reuters - Emerging Sources Citation Index \(ESCI\)](#)

DETAILED LIST OF PUBLICATIONS

Publications in International Journals

PAPERS Published/ Published Online in SCI/ SCIE Indexed JOURNALS

1. **Datta S**, Bandyopadhyay A, Pal PK (2008) *Solving Multi Criteria Optimization Problem in Submerged Arc Welding Consuming a Mixture of Fresh Flux and Fused Slag. The International Journal of Advanced Manufacturing Technology*, 35(9-10): 935 - 942.
2. **Datta S**, Bandyopadhyay A, Pal PK (2008) *Application of Taguchi Philosophy for Parametric Optimization of Bead Geometry and HAZ Width in Submerged Arc Welding Using Mixture of Fresh Flux and Fused Slag. The International Journal of Advanced Manufacturing Technology*, 36(7-8): 689 - 698.
3. **Datta S**, Bandyopadhyay A, Pal PK (2008) *Modeling and Optimization of Features of Bead Geometry Including Percentage Dilution in Submerged Arc Welding Consuming Mixture of Fresh Flux and Fused Slag. The International Journal of Advanced Manufacturing Technology*, 36(11-12): 1080 - 1090.
4. **Datta S**, Bandyopadhyay A, Pal PK (2008) *Slag Recycling in Submerged Arc Welding and Its Influence on Weld Quality Leading to Parametric Optimization. The International Journal of Advanced Manufacturing Technology*, 39(3-4): 229 - 238.
5. **Datta S**, Bandyopadhyay A, Pal PK (2008) *Grey Based Taguchi Method for Optimization of Bead Geometry in Submerged Arc Bead-On-Plate Welding. The International Journal of Advanced Manufacturing Technology*, 39(11-12): 1136 - 1143.
6. **Datta S**, Nandi G, Bandyopadhyay A, Pal PK (2009) *Application of PCA Based Hybrid Taguchi Method for Multi-Criteria Optimization of Submerged Arc Weld: A Case Study. The International Journal of Advanced Manufacturing Technology*, 45(3-4): 276 - 286.
7. **Datta S**, Nandi G, Bandyopadhyay A (2009) *Application of Entropy Measurement Technique in Grey Based Taguchi Method for Solution of Correlated Multiple Response Optimization Problems: A Case Study in Welding. Journal of Manufacturing Systems*, 28(2-3): 55 - 63.
8. Routara BC, Mohanty SD, **Datta S**, Bandyopadhyay A, Mahapatra SS (2010) *Combined Quality Loss (CQL) Concept in PCA Based Taguchi Philosophy for Optimization of Multiple Surface Quality Characteristics of UNS C34000 Brass in Cylindrical Grinding. The International Journal of Advanced Manufacturing Technology*, 51(1-4): 135 - 143.
9. Routara BC, Mohanty SD, **Datta S**, Bandyopadhyay A, Mahapatra SS (2010) *Optimization in ENC End Milling of UNS C34000 Medium Lead Brass with Multiple Surface Roughness Characteristics. Sadhana, an Official Journal of the Indian Academy of Sciences*, 35(5): 619 - 629.

10. Sahu NK, **Datta S**, Mahapatra SS (2012) *Establishing Green Supplier Appraisal platform using Grey Concepts*. **Grey Systems: Theory and Application**, 2(3): 395 - 418.
11. **Datta S**, Sahu NK, Mahapatra SS (2013) *Robot Selection based on Grey-MULTIMOORA*. **Grey Systems, Theory and Applications**, 3(2): 201 – 232.
12. Singh A, **Datta S**, Mahapatra SS, Singha T, Majumdar G (2013) *Optimization of Bead Geometry of Submerged Arc Weld using Fuzzy based Desirability Function Approach*. **Journal of Intelligent Manufacturing**, 24(1): 35 - 44.
13. Samantra C, **Datta S**, Mishra S, Mahapatra SS (2013) *Agility Evaluation for Integrated Supply Chain Using Generalized Trapezoidal Fuzzy Numbers Set*. **The International Journal of Advanced Manufacturing Technology**, 68(5): 1491 - 1503.
14. Sahu AK, **Datta S**, Mahapatra SS (2014) *Supply Chain Performance Benchmarking using Grey-MOORA Approach: An Empirical Research*. **Grey Systems: Theory and Application**, 4(1): 24 - 55.
15. Matawale CR, **Datta S**, Mahapatra SS (2014) *Lean Metric Appraisal: Exploration of Grey Numbers Set Theory*. **Grey Systems: Theory and Applications**, 4(3): 400 - 425.
16. Samantra C, **Datta S**, Mahapatra SS (2014) *Risk Assessment in IT Outsourcing using Fuzzy Decision-Making Approach: An Indian Perspective*. **Expert Systems with Applications**, 41(8): 4010 - 4022.
17. Sahu SK, **Datta S**, Mahapatra SS (2015) *Appraisal and Benchmarking of Supply Chain Performance Extent: A Fuzzy Grey Relation Method*. **Grey Systems: Theory and Application**, 5(1): 2 - 30.
18. Sen DK, **Datta S**, Mahapatra SS (2015) *Extension of TODIM Combined with Grey Numbers: An Integrated Decision Making Module*, **Grey Systems Theory and Applications**, 5(3): 367 - 391.
19. Abhishek K, **Datta S**, Mahapatra SS (2015) *Optimization of Thrust, Torque, Entry and Exit Delamination Factor during Drilling of CFRP Composites*. **The International Journal of Advanced Manufacturing Technology**, 76(1): 401 - 416.
20. Sathapathy MP, Sahoo SK, **Datta S** (2016) *Acoustic Horn Design and Effects of Process Parameters on Properties of Dissimilar Ultrasonic Welding Aluminium to Brass*. **Materials and Manufacturing Processes**, 31(3): 283 - 290.
21. Abhishek K, **Datta S**, Mahapatra SS (2016) *Multi-objective Optimization in Drilling of CFRP (Polyester) Composites: Application of a Fuzzy Embedded Harmony Search (HS) Algorithm*. **Measurement**, 77: 222 - 239.

22. Sen DK, **Datta S**, Mahapatra SS (2016) *A TODIM-Based Decision Support Framework for G-Resilient Supplier Selection in Fuzzy Environment*. **Asia-Pacific Journal of Operational Research**, 33(2): 1650033-1 – 1650033-40.
23. Abhishek K, Rakesh Kumar V, **Datta S**, Mahapatra SS (2017) *Parametric Appraisal and Optimization in Machining of CFRP Composites by using TLBO (Teaching-Learning Based Optimization)*. **Journal of Intelligent Manufacturing**, 28(8): 1769 - 1785.
24. Samantra C, **Datta S**, Mahapatra SS (2017) *A Risk-based Decision Support Framework for Selection of Appropriate Safety Measure System for Underground Coal Mines*. **International Journal of Injury Control and Safety Promotion**, 24(1): 54 - 68.
25. Samantra C, **Datta S**, Mahapatra SS (2017) *Analysis of Occupational Health Hazards and Associated Risks in Fuzzy Environment: A Case Research in an Indian Underground Coal Mine*. **International Journal of Injury Control and Safety Promotion**, 24(3): 311 - 327.
26. Abhishek K, Rakesh Kumar V, **Datta S**, Mahapatra SS (2017) *Application of JAYA Algorithm for Optimization of Machining Performance Characteristics during Turning of CFRP (Epoxy) Composites: Comparison with TLBO, GA and ICA*. **Engineering with Computers**, 33: 457 - 475.
27. Upadhyay C, **Datta S**, Masanta M, Mahapatra SS (2017) *An Experimental Investigation Emphasizing Surface Characteristics of Electro-Discharge Machined Inconel 601*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 39(8): 3051 – 3066.
28. Sen DK, **Datta S**, Mahapatra SS (2017) *Decision Support Framework for Selection of 3PL Service Providers: Dominance Based Approach in Combination with Grey Set Theory*. **International Journal of Information Technology and Decision Making**, 16(1): 25 – 57.
29. Rahul, Abhishek K, **Datta S**, Biswal BB, Mahapatra SS (2017) *Machining Performance Optimization for Electro Discharge Machining of Inconel 601, 625, 718 and 825: An Integrated Optimization Route Combining Satisfaction Function, Fuzzy Inference System and Taguchi Approach*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 39(9): 3499 - 3527.
30. Rahul, **Datta S**, Biswal BB, Mahapatra SS (2017) *A Novel Satisfaction Function and Distance Based Approach for Machining Performance Optimization during Electro-Discharge Machining on Super Alloy Inconel 718*. **Arabian Journal for Science and Engineering**, 42: 1999 - 2020.
31. Rahul, **Datta S**, Biswal BB, Mahapatra SS (2017) *Electrical Discharge Machining of Inconel 825 using Cryogenically Treated Copper Electrode: Emphasis on Surface Integrity and Metallurgical Characteristics*. **Journal of Manufacturing Processes**, 26: 188-202.
32. Samantra C, **Datta S**, Mahapatra SS (2017) *Fuzzy Based Risk assessment module for metropolitan construction project: An Empirical Study*. **Engineering Applications of Artificial Intelligence**, 65: 449 - 464.

33. Rahul, **Datta S**, Masanta M, Biswal BB, Mahapatra SS (2018) *Analysis on Surface Characteristics of Electro-Discharge Machined Inconel 718*. **International Journal of Materials and Product Technology**, 56(1/2): 135 - 168.
34. Rahul, **Datta S**, Masanta M (2018) *Surface Integrity and Metallurgical Characteristics of the EDMed Work Surfaces of A2 Tool Steel (SAE 304SS), Inconel 601 and Ti-6Al-4V: A Comparative Analysis*. **Silicon**, 10(4): 1557 - 1572.
35. Kumari S, **Datta S**, Masanta M, Nandi G, Pal PK (2018) *Electro-Discharge Machining of Inconel 825 Super Alloy: Effects of Tool Material and Dielectric Flushing*. **Silicon**, 10: 2079 – 2099.
36. Rahul, Mishra DK, **Datta S**, Masanta M (2018) *Effects of Tool Electrode on EDM Performance of Ti-6Al-4V*. **Silicon**, 10: 2263 - 2277.
37. Sahu SK, Jadam T, **Datta S**, Nandi G (2018) *Effect of using SiC Power Added Dielectric Media during Electro-Discharge Machining of Inconel 718 Super Alloys*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 40: 330. DOI: [10.1007/s40430-018-1257-7](https://doi.org/10.1007/s40430-018-1257-7)
38. Halder N, **Datta S**, Kumar R (2018) *Experimental Studies on Friction Stir Welding of AA6061 using Inconel 601 Tool*. **Journal of Brazilian Society of Mechanical Sciences and Engineering**, 40: 448. DOI: [10.1007/s40430-018-1378-z](https://doi.org/10.1007/s40430-018-1378-z)
39. Mishra DK, Rahul, **Datta S**, Masanta M, Mahapatra SS (2019) *Through Hole Making by Electro-Discharge Machining (EDM) on Inconel 625 Super Alloy Using Hollow Copper Tool Electrode*. **Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering**, 233(2): 348–370.
40. Sahu SK, **Datta S** (2019) *Experimental Studies on Graphite Powder Mixed Electro-Discharge Machining of Inconel 718 Super Alloys: Comparison with Conventional Electro-Discharge Machining*. **Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering**, 233(2): 384–402.
41. Kumar M, **Datta S**, Kumar R (2019) *Electro-Discharge Machining Performance of Ti-6Al-4V Alloy: Studies on Parametric Effect and Phenomenon of Electrode Wear*. **Arabian Journal for Science and Engineering**, 44(2): 1553 - 1568.
42. Rahul, **Datta S**, Biswal BB, Mahapatra SS (2019) *Machinability Analysis of Inconel 601, 625, 718 and 825 in Electro Discharge Machining: On Evaluation of Optimal Parameters Setting*. **Measurement**, 137: 382 - 400.
43. Rakesh M, **Datta S** (2019) *Effects of Cutting Speed on Chip Characteristics and Tool Wear Mechanisms during Dry Machining of Inconel 718 Using Uncoated WC Tool*. **Arabian Journal for Science and Engineering**, 44(9): 7423 - 7440.

44. Jadam T, **Datta S**, Masanta M (2019) *Study of Surface Integrity and Machining Performance during Main/Rough cut and Trim/Finish Cut Mode of WEDM on Ti-6Al-4V: Effects of Wire Material*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 41: 151. DOI: [10.1007/s40430-019-1656-4](https://doi.org/10.1007/s40430-019-1656-4)
45. Rahul, **Datta S**, Biswal BB (2019) *Experimental Studies on Electro-Discharge Machining of Inconel 825 Super Alloy using Cryogenically Treated Tool/Workpiece*. **Measurement**, 145: 611 - 630.
46. Jadam T, Sahu SK, **Datta S**, Masanta M (2019) *EDM Performance of Inconel 718 Super Alloy: Application of Multi-Walled Carbon Nanotube (MWCNT) Added Dielectric Media*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 41: 305. DOI: [10.1007/s40430-019-1813-9](https://doi.org/10.1007/s40430-019-1813-9)
47. Sahu D, Sahu SK, Jadam T, **Datta S** (2019) *Parametric Effects on EDM Performance of Nimonic 80A*. **Arabian Journal for Science and Engineering**, 44(12):10155 - 10167.
48. Rakesh M, **Datta S** (2020) *Machining of Inconel 718 Using Coated WC Tool: Effects of Cutting Speed on Chip Morphology and Mechanisms of Tool Wear*. **Arabian Journal for Science and Engineering**, 45(2): 797 - 816.
49. Jadam T, Rakesh M, **Datta S** (2020) *Effects of Machining Duration on Machinability of Ti-6Al-4V Superalloy using Uncoated Carbide Tool: Performance of Dry Cutting and Nanofluid MQL (MWCNT Added Rice Bran Oil)*. **Arabian Journal for Science and Engineering**, 45: 5673 - 5695.
50. Bedi SS, Behera GC, **Datta S** (2020) *Effects of Cutting Speed on MQL Machining Performance of AISI 304 Stainless Steel using Uncoated Carbide Insert: Application Potential of Coconut Oil and Rice Bran Oil as Cutting Fluids*. **Arabian Journal for Science and Engineering**, 45: 8877 - 8893.
51. Jadam T, Sahu SK, **Datta S**, Masanta M (2020) *Powder Mixed Electro-Discharge Machining Performance of Inconel 718: Effect of Concentration of Multi-Walled Carbon Nanotube Added to the Dielectric Media*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 45: 135. DOI: [10.1007/s12046-020-01378-2](https://doi.org/10.1007/s12046-020-01378-2)
52. Sahoo SP, **Datta S** (2020) *Dry, MQL, and Nanofluid MQL Machining of Ti-6Al-4V using Uncoated WC-Co Insert: Application of Jatropha Oil as Base Cutting Fluid and Graphene Nanoplatelets as Additives*. **Arabian Journal for Science and Engineering**, 45: 9599 - 9618.
53. Jadam T, **Datta S** (2020) *Machinability of Ti-5Al-2.5Sn for Electro-Discharge Machining: An Experimental Investigation*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 45: 238. DOI: [10.1007/s12046-020-01479-y](https://doi.org/10.1007/s12046-020-01479-y)
54. Sahoo SP, **Datta S** (2020) *Dry Machining Performance of AA7075-T6 Alloy Using Uncoated Carbide and MT-CVD TiCN-Al₂O₃ Coated Carbide Inserts*. **Arabian Journal for Science and Engineering**, 45: 9777 - 9791.

55. Jadam T, Rahul, **Datta S**, Mahapatra SS (2021) *Electro-Discharge Machining (EDM) of Super Alloy Inconel 718 using Triangular Cross Sectioned Copper Tool Electrode: Emphasis on Topography and Metallurgical Characteristics of the EDMed Work Surface*. **Proceedings of the National Academy of Sciences, India Section A: Physical Sciences**, 91(1): 123 - 134.
56. Jadam T, **Datta S**, Masanta M (2021) *Studies on Chip Morphology and Modes of Tool Wear during Machining of Ti-6Al-4V using Uncoated Carbide Tool: Application of Multi-Walled Carbon Nano Tubes Added Rice Bran Oil as Nanocutting Fluid*. **Machining Science and Technology, an International Journal**, 25(2): 237 – 287.
57. Jadam T, **Datta S**, Masanta M (2021) *Influence of Cutting Tool Material on Machinability of Inconel 718 Superalloy*. **Machining Science and Technology, an International Journal**, 25(3): 349 - 397.
58. Sarkar S, **Datta S** (2021) *Machining Performance of Inconel 718 under Dry, MQL and Nanofluid MQL Conditions: Application of Coconut Oil (Base Fluid) and Multi-Walled Carbon Nanotubes as Additives*. **Arabian Journal for Science and Engineering**, 46: 2371 - 2395.
59. Sahoo SP, **Datta S**, Roy T, Ghosh S (2021) *Machining Performance of Ti6Al4V under Dry Environment, Pressurized Air Supply and Water-MQL: Analysis on Machining-Induced Vibration Signals and Captured Thermographs*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 46: 208. <https://doi.org/10.1007/s12046-021-01738-6>
60. Sahoo SP, **Datta S** (2021) *Experimental Studies on Dry Machining Behavior of Ti-6Al-4V using Carbide, Cermet, and SiAlON Tools*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 46: 239. <https://doi.org/10.1007/s12046-021-01767-1>
61. Sahoo SP, **Datta S** (2022) *Comparative Experimental Study on Application Feasibility of MTCVD TiCN-Al₂O₃-TiOCN Multi-Layer Coated Carbide and PVD TiN Single Layer Coated Composite Ceramic Inserts during Dry Machining of Ti-6Al-4V*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 47: 105. <https://doi.org/10.1007/s12046-022-01880-9>
62. Pandey K, **Datta S**, Roy T (2022) *Machinability of Inconel 825 under nano-Al₂O₃ based Nanofluid Minimum Quantity Lubrication*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 47: 127. <https://doi.org/10.1007/s12046-022-01888-1>
63. Sahoo SP, **Datta S** (2022) *Dry Machining of Ti-6Al-4V using Recently Developed PVD Si-Doped TiAlxN Super Nitride (HSN²) Coated WC-Co Tool*. **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 44: 407. <https://doi.org/10.1007/s40430-022-03701-w>
64. Sahoo SP, Pandey K, **Datta S** (2022) *Performance of Uncoated/ MTCVD-TiCN-Al₂O₃-TiOCN/ MTCVD-TiCN-Al₂O₃ Coated Carbide Inserts during MQL (Sunflower Oil) Assisted Machining of Inconel 718 Superalloy*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 47: 193. <https://doi.org/10.1007/s12046-022-01969-1>

65. Kumar A, **Datta S**, Roy T, Mahapatra SS (2022) *Parametric Studies of Fused Filament Fabrication towards Fabrication of 2D Auxetic Metamaterial Cellular Structure followed by Auxeticity Simulation*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 47: 214. <https://doi.org/10.1007/s12046-022-01993-1>
66. Pandey K, **Datta S** (2022) *Performance of Si-doped TiAlN Supernitride Coated Carbide Tool during Dry Machining of Inconel 718 Superalloy*. **Journal of Manufacturing Processes**, 84: 1258 - 1273.
67. Haldar N, Anand S, **Datta S**, Das A (2023) *On Fabrication of Inconel 718 Slab by Wire Arc Additive Manufacturing: Study of Built Microstructure and Mechanical Properties*. **Arabian Journal for Science and Engineering**. <https://doi.org/10.1007/s13369-023-08095-y>
68. Sharma S, **Datta S**, Roy T, Mahapatra SS (2023) *Study of Parametric Interaction during Fused Filament Fabrication (FFF) using Interpretive Structural Modelling (ISM) followed by Experimental Analysis*. **Rapid Prototyping Journal**, 29(10): 2232 - 2256.
69. Anand S, Haldar N, **Datta S**, Das A (2023) *Experimental Investigation on Microstructure and Mechanical Property of Wire Arc Additively Manufactured SS308L Built Part*. **Sadhana, an Official Journal of the Indian Academy of Sciences**, 48: 192. <https://doi.org/10.1007/s12046-023-02260-7>
70. Haldar N, Anand S, **Datta S**, Das A (2023) *Microstructure and Mechanical Property Characterization of Wire Arc Additively Manufactured SS 308L Built Part: Study of Heat interaction Phenomena*. **Journal of Materials Engineering and Performance**. <https://doi.org/10.1007/s11665-023-08926-x>

PAPERS Published in JOURNALS (Indexed by Elsevier: SCOPUS www.scopus.com)

1. **Datta S**, Sundar M, Bandyopadhyay A, Nandi G, Pal PK, Roy SC (2006) *Effect of Process Parameters on Bead Geometry, Quality and Performance of Submerged Arc Weldment - Experimental and Statistical Analyses*. **Journal of the Mechanical Behavior of Materials**, 17(3): 149 - 191. DOI: [10.1515/JMBM.2006.17.3.149](https://doi.org/10.1515/JMBM.2006.17.3.149)
2. **Datta S**, Sundar M, Bandyopadhyay A, Nandi G, Pal PK, Roy SC (2007) *Effect of Process Parameters on Mechanical Properties of Submerged Arc Butt-Welding Experiments and Statistical Modelling*. **International Journal of Microstructure and Materials Properties**, 2(3/4): 339 - 360. DOI: [10.1504/IJMMP.2007.015313](https://doi.org/10.1504/IJMMP.2007.015313)
3. Mazumdar A, **Datta S**, Mahapatra SS (2010) *Application of Multi-Criteria Decision Making Models for the Evaluation and Appraisal of Teachers' Performance*. **International Journal of Productivity and Quality Management**, 6(2): 213 - 230.
4. **Datta S**, Mahapatra S (2010) *Multi-Objective Optimization of Submerged Arc welding*. **The Journal of Engineering Research (TJER)**, 7(1): 42 - 52.

5. **Datta S**, Mahapatra SS (2010) Use of *Desirability Function and Principal Component Analysis in Grey-Taguchi Approach to Solve Correlated Multi-Response Optimization in Submerged Arc Welding*. **Journal of Advanced Manufacturing Systems**, 9(2): 117 - 128. DOI: [10.1142/S0219686710001843](https://doi.org/10.1142/S0219686710001843)
6. Sood AK, Chaturvedi V, **Datta S**, Mahapatra SS (2011) *Optimization of Process Parameters in Fused Deposition Modeling using Weighted Principal Component Analysis*. **Journal of Advanced Manufacturing Systems**, 10(2): 241 - 259. DOI: [10.1142/S0219686711002181](https://doi.org/10.1142/S0219686711002181)
7. Dhal PR, **Datta S**, Mahapatra SS (2011) *Flexible Manufacturing System Selection based on Grey Relation under Uncertainty*. **International Journal of Services and Operations Management**, 8(4): 516 – 534.
8. Samantra C, **Datta S**, Mahapatra SS (2011) *Selection of Industrial Robot using Interval-Valued Trapezoidal Fuzzy Numbers Set Combined with VIKOR Method*. **International Journal of Technology Intelligence and Planning**, 7(4): 344 - 360.
9. Mishra S, **Datta S**, Mahapatra SS (2012) *Interrelationship of Drivers for Agile Manufacturing: An Indian Experience*. **International Journal of Services and Operations Management**, 11(1): 35 - 48.
10. Mishra S, Samantra C, **Datta S**, Mahapatra SS (2012) *Multi-Attribute Group Decision Making (MADM) for Supplier Selection Using Fuzzy Linguistic Modeling Integrated with VIKOR Method*. **International Journal of Services and Operations Management**, 12(1): 67 – 89.
11. **Datta S**, Samantra C, Mahapatra SS, Banerjee S, Bandyopadhyay A (2012) *Green Supplier Evaluation and Selection Using VIKOR Method Embedded in Fuzzy Expert System with Interval-Valued Fuzzy Numbers*. **International Journal of Procurement Management**, 5(5): 647 - 678.
12. **Datta S**, Samantra C, Mahapatra SS, Mondal G, Chakraborty PS, Majumdar G (2013) *Selection of Internet Assessment Vendor Using TOPSIS Method in Fuzzy Environment*. **International Journal of Business Performance and Supply Chain Modelling**, 5(1): 1 - 27.
13. Samantra C, Sahu NK, **Datta S**, Mahapatra SS (2013) *Decision-Making in Selecting Reverse Logistics Alternative using Interval-Valued Fuzzy Sets Combined with VIKOR Approach*. **International Journal of Services and Operations Management**, 14(2): 175 - 196.
14. Mishra S, **Datta S**, Mahapatra SS (2013) *Implementing Agility Appraisement Module in Fuzzy Context: An Indian Perspective*. **International Journal of Logistic Systems and Management**, 14(3): 353 - 386.
15. Sahu NK, **Datta S**, Mahapatra SS (2013) *Decision Making for Selecting 3PL Service Provider using Three Parameter Interval Grey Numbers*. **International Journal of Logistic Systems and Management**, 14(3): 261 - 297.

16. Singh A, **Datta S**, Mahapatra SS (2013) *Principal Component Analysis and Fuzzy Embedded Taguchi Approach for Multi-Response Optimization in Machining of GFRP Polyester Composites: A Case Study*. **International Journal of Industrial and Systems Engineering**, 14(2): 175 - 206.
17. Mishra S, **Datta S**, Mahapatra SS (2013) *Grey-Based and Fuzzy TOPSIS Decision-Making Approach for Agility Evaluation of Mass Customization Systems*. **Benchmarking, an International Journal**, 20(4): 440 - 462.
18. **Datta S**, Samantra C, Mahapatra SS, Mondal G, Majumdar G (2013) *Appraisal and Selection of Third Party Logistics Service Providers in Fuzzy Environment*. **Benchmarking, an International Journal**, 20(4): 537 - 548.
19. Matwale CR, **Datta S**, Mahapatra SS (2014) *Leanness Estimation Procedural Hierarchy using Interval-Valued Fuzzy Sets (IVFS)*. **Benchmarking, an International Journal**, 21(2): 150 - 183.
20. Abhishek K, **Datta S**, Mahapatra SS, Mandal G, Majumdar G (2013) *Taguchi Approach Followed by Fuzzy Linguistic Reasoning for Quality-Productivity Optimization in Machining Operation: A Case Study*. **Journal of Manufacturing Technology and Management**, 24(6): 929 - 951.
21. Mishra S, Mahapatra SS, **Datta S** (2014) *Agility Evaluation in Fuzzy Context: Influence of Decision-Makers Risk Bearing Attitude*. **Benchmarking, an International Journal**, 21(6): 1084 - 1119.
22. Sahu NK, **Datta S**, Mahapatra SS (2014) *Green Supplier Appraisement in Fuzzy Environment*. **Benchmarking, an International Journal**, 21(3): 412 - 429.
23. Mishra S, Samantra C, **Datta S**, Mahapatra SS (2013) *Supplier Evaluation in Agile Supply Chain in Fuzzy paradigm*. **International Journal of Services and Operations Management**, 16(1): 1 - 41.
24. Matwale CR, **Datta S**, Mahapatra SS (2013) *Agility Appraisement and Identification of Agile Barriers in a Supply Chain*. **International Journal of Services and Operations Management**, 16(4): 478 - 505.
25. Mishra S, **Datta S**, Mahapatra SS, Debata BR (2014) *Alignment of Dimensions towards Modeling Organizational Supply Chain Agility*. **International Journal of Services and Operations Management**, 17(1): 88 - 106.
26. **Datta S**, Sahu RK, Mahapatra SS, Biswas A, Majumdar G (2014) *Optimization of Percent Dilution and HAZ Width of Submerged Arc Weldment using Taguchi Philosophy Coupled with Fuzzy Inference System*. **International Journal of Productivity and Quality Management**, 13(4): 430 - 449.

27. Mishra S, Samantra C, **Datta S**, Mahapatra SS (2014) *Agility Appraisalment Framework for Integrated Supply Chain Using Generalized Interval-Valued Fuzzy Set*. **International Journal of Business Information Systems**, 16(1): 89 - 118.
28. Sahu AK, **Datta S**, Mahapatra SS (2014) *Use of IVFNs and MULTIMOORA Method for Supply Chain Performance Measurement, Benchmarking and Decision-Making: an Empirical Study*. **International Journal of Business Excellence**, 7(2): 237 - 280.
29. Mishra S, Samantra C, **Datta S**, Mahapatra SS (2014) *Agility Appraisalment Framework for Integrated Supply Chain Using Generalized Interval-Valued Fuzzy Set*. **International Journal of Business Information Systems**, 16(1): 89 - 118.
30. Matwale CR, **Datta S**, Mahapatra SS (2015) *Leanness Metric Evaluation Platform in Fuzzy Context*. **Journal of Modelling in Management**, 10(2): 238 - 267.
31. Matawale CR, **Datta S**, Mahapatra SS (2015) *Evaluation of Leanness, Agility and Leagility for Supply Chain of Automotive Industries*. **International Journal of Agile Systems and Management**, 8(2): 85 - 115.
32. Mishra S, Sahu A, **Datta S**, Mahapatra SS (2015) *Application of Fuzzy Integrated Multi-MOORA Method towards Supplier/Partner Selection in Agile Supply Chain*. **International Journal of Operational Research**, 22(4): 466 - 514.
33. Sahu NK, **Datta S**, Mahapatra SS (2015) *Fuzzy Based Appraisalment Module for 3PL Evaluation and Selection*. **Benchmarking, an International Journal**, 22(3): 354 - 392.
34. Sahu AK, **Datta S**, Mahapatra SS (2015) *GDMP for CNC Machine Tool Selection with a Compromise Ranking Method Using Generalized Fuzzy Circumstances*. **International Journal of Computer Aided Engineering and Technology**, 7(1): 92 - 108.
35. Matwale CR, **Datta S**, Mahapatra SS (2013) *Interrelationship of Capabilities/Enablers for Lean, Agile and Leagile Manufacturing: An ISM Approach*. **International Journal of Process Management and Benchmarking**, 3(3): 290 - 313.
36. Sahu SK, **Datta S**, Patel SK, Mahapatra SS (2013) *Supply Chain Performance Appraisalment, Benchmarking and Decision-Making: Empirical Study using Grey Theory and Grey-MOORA*. **International Journal of Process Management and Benchmarking**, 3(3): 233 - 289.
37. Sahu AK, **Datta S**, Mahapatra SS (2013) *Green Supply Chain Performance Benchmarking using Integrated IVFN-TOPSIS Methodology*. **International Journal of Process Management and Benchmarking**, 3(4): 511 - 551.
38. Samantra C, **Datta S**, Mahapatra SS, Debata BR (2016) *Interpretive Structural Modelling of Critical Risk Factors in Software Engineering Project*. **Benchmarking: an International Journal**, 23(1): 2 - 24.

39. Samantra C, **Datta S**, Mishra S, Mahapatra SS (2015) *Fuzzy Evaluation Modeling to Assess Organizational Agility*. **International Journal of Industrial and Systems Engineering**, 21(1): 50 - 67.
40. Sahu AK, Sahu SK, **Datta S**, Mahapatra SS (2015) *Supply Chain Flexibility Assessment and Decision Making: A Fuzzy Intelligent Approach*. **International Journal of Business Excellence**, 8(6): 675 - 699.
41. Matawale CR, **Datta S**, Mahapatra SS (2016) *Supplier /Partner Selection in Agile Supply Chain: Application of Vague Set as a Decision Making Tool*. **Benchmarking, an International Journal**, 23(4): 866 - 892.
42. Sahu AK, **Datta S**, Mahapatra SS (2015) *Green Supply Chain Performance Appraisement and Benchmarking using Fuzzy Grey Relation Method*. **International Journal of Business Information Systems**, 20(2): 157 - 194.
43. Sen DK, **Datta S**, Patel SK, Mahapatra SS (2015) *Multi-Criteria Decision Making towards Selection of Industrial Robot: Exploration of PROMETHEE II Method*. **Benchmarking, an International Journal**, 22(3): 465 – 487.
44. Sahu AK, **Datta S**, Mahapatra SS (2016) *Evaluation and Selection of Resilient Suppliers in Fuzzy Environment: Exploration of Fuzzy-VIKOR*. **Benchmarking, an International Journal**, 23(3): 651 - 673.
45. Sahu AK, **Datta S**, Mahapatra SS (2016) *Evaluation and Selection of Suppliers Considering Green Perspectives: Comparative Analysis on Application of FMLMCDM and Fuzzy-TOPSIS*. **Benchmarking, an International Journal**, 23(6): 1579 - 1604.
46. Sen DK, **Datta S**, Mahapatra SS (2016) *Extension of PROMETHEE for Robot Selection Decision Making: Simultaneous Exploration of Objective Data and Subjective (Fuzzy) Data*. **Benchmarking, an International Journal**, 23(4): 1 - 35.
47. Matawale CR, **Datta S**, Mahapatra SS (2016) *Supplier Selection in Agile Supply Chain: Application Potential of FMLMCDM Approach in Comparison with Fuzzy-TOPSIS and Fuzzy-MOORA*. **Benchmarking, an International Journal**, 23(7): 2027 – 2060.
48. Sen DK, **Datta S**, Mahapatra SS (2016) *Application of TODIM (Tomada de Decisión Iterativa Multicriterio) for Industrial Robot Selection*. **Benchmarking, an International Journal**, 23(7): 1818 - 1833.
49. Matawale CR, **Datta S**, Mahapatra SS (2016) *A Fuzzy Embedded Leagility Assessment Module in Supply Chain*. **Benchmarking: an International Journal**, 23(7): 1937 - 1982.
50. Sen DK, **Datta S**, Mahapatra SS (2017) *Extension of TODIM for Decision Making in Fuzzy Environment: A Case Empirical Research on Selection of Industrial Robot*. **International Journal of Services and Operations Management**, 26(2): 238 - 276.

51. Sahu AK, **Datta S**, Mahapatra SS (2017) *Evaluation of Performance Index in Resilient Supply Chain: A Fuzzy Based Approach*. **Benchmarking, an International Journal**, 24(1): 118 - 142.
52. Sen DK, **Datta S**, Mahapatra SS (2017) *Dominance Based Fuzzy Decision Support Framework for G-Resilient (Ecosilient) Supplier Selection: An Empirical Modeling*. **International Journal of Sustainable Engineering**, 10(6): 338 - 357.
53. Matawale CR, **Datta S**, Mahapatra SS (2017) *Performance Appraisal and Benchmarking of Leagility Inspired Industries: A Fuzzy Based Decision Making Approach*. **International Journal of Services and Operations Management**, 26(4): 498 - 526.
54. Abhishek K, **Datta S**, Mahapatra SS (2017) *Multi-Objective Optimization during Drilling of CFRP Composites: A PCA-Fuzzy Taguchi Integrated Approach*. **International Journal of Industrial and Systems Engineering**, 26(2): 182 - 200.
55. Rahul, Abhishek K, **Datta S**, Biswal BB, Mahapatra SS (2017) *Machining Performance Optimization during EDM of Inconel 718: A Case Experimental Investigation*. **International Journal of Productivity and Quality Management**, 21(4): 460 - 489.
56. Sen DK, **Datta S**, Patel SK, Mahapatra SS (2017) *Green Supplier Selection in Fuzzy Context: A Decision Making Scenario on Application of Fuzzy-MULTIMOORA*. **International Journal of Services and Operations Management**, 28(1): 98 - 140.
57. Sen DK, **Datta S**, Mahapatra SS (2018) *Sustainable Supplier Selection in Intuitionistic Fuzzy Environment: A Decision Making Perspective*. **Benchmarking, an International Journal**, 25(2): 545 - 574.
58. Upadhyay C, Rahul, **Datta S**, Mahapatra SS, Biswal BB (2018) *An Experimental Investigation on Electro Discharge Machining (EDM) of Inconel 601*. **International Journal of Industrial and Systems Engineering**, 29(2): 223 - 251.
59. Sen DK, **Datta S**, Mahapatra SS (2018) *On Evaluation of Supply Chain's Ecosilient (G-Resilient) Performance Index: A Fuzzy Embedded Decision Support Framework*. **Benchmarking, an International Journal**, 25(7): 2370 - 2389.
60. Abhishek K, Rakesh Kumar V, **Datta S**, Mahapatra SS (2019) *An Integrated Multi-Response Optimization Route Combining Principal Component Analysis (PCA), Fuzzy Inference System (FIS), Nonlinear Regression and JAYA Algorithm: A Case Experimental Study on Machining of GFRP (Epoxy) Composites*. **International Journal of Industrial and Systems Engineering**, 32(4): 497 - 525.
61. Rahul, **Datta S** (2019) *Electrical Discharge Machining Performance of Deep Cryogenically Treated Inconel 825 Superalloy: Emphasis on Surface Integrity*. **Metallography, Microstructure and Analysis**, 8(2): 212 - 225.

62. Rakesh M, **Datta S** (2020) *Dry Machining of Inconel 718 Super Alloys Using Uncoated Tool: Experimental and Numerical Analysis*. **Matériaux and Techniques**, EDP Sciences, 108(4): 1 - 12.
63. Pandey K, **Datta S** (2021) *Dry Machining of Inconel 825 Superalloys: Performance of Tool Inserts (Carbide, Cermet, and SiAlON)*. **International Journal of Manufacturing, Materials, and Mechanical Engineering**, 11(4): 26 - 39.

Publication in JOURNAL ([SCOPUS Indexed](#); Published through Conferences)

- [1] Abhishek K, Chatterjee S, **Datta S**, Mahapatra SS, *Application of NSGA II for Optimization of Multi-Performance Characteristics during Machining of GFRP (epoxy) Composites*. **4th International Conference on Materials Processing and Characterization (ICMPC 2015)**, 14-15 March 2015, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 2(4–5) (2015): 2353 - 2358.
- [2] Abhishek K, **Datta S**, Mahapatra SS, *Optimization of Multi-Performance Characteristics during Drilling of GFRP (Epoxy) Composites by Harmony Search Algorithm*. **4th International Conference on Materials Processing and Characterization (ICMPC-2015)**, 14-15 March 2015, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 2(4–5) (2015): 2332 - 2336.
- [3] Abhishek K, Chatterjee S, **Datta S**, Mahapatra SS, *Integrating Principal Component Analysis, Fuzzy Linguistic Reasoning and Taguchi Philosophy for Quality-Productivity Optimization*. **5th International Conference on Materials Processing and Characterization (ICMPC 2016)**, 12-13 March, 2016, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 4(2) Part A (2017): 1772 - 1777.
- [4] Abhishek K, **Datta S**, Mahapatra SS, *Optimization of MRR, Surface Roughness, and Maximum Tool-Tip Temperature during Machining of CFRP Composites*. **5th International Conference on Materials Processing and Characterization (ICMPC 2016)**, 12-13 March, 2016, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 4(2) Part A (2017): 2761 - 2770.
- [5] Rahul, Srivastava A, Mishra DK, Chatterjee S, **Datta S**, Biswal BB, Mahapatra SS, *Multi-Response Optimization during Electro-Discharge Machining of Super Alloy Inconel 718: Application of PCA-TOPSIS*. **7th International Conference on Materials Processing and Characterization (ICMPC 2017)**, 17-19 March 2017, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 5(2) Part 1 (2018): 4269 - 4276.
- [6] Sahu BK, **Datta S**, Mahapatra SS, *On Electro-Discharge Machining of Inconel 718 Super Alloy: An Experimental Investigation*. **7th International Conference on Materials Processing and Characterization (ICMPC 2017)**, 17-19 March 2017, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 5(2) Part 1 (2018): 4861 - 4869.

- [7] Rahul, **Datta S**, Biswal BB, Mahapatra SS, *Optimization of EDM Responses on Super Alloy Inconel 718: Use of Satisfaction Function Approach Combined with Taguchi Philosophy*. **7th International Conference on Materials Processing and Characterization (ICMPC 2017)**, 17-19 March 2017, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 5(2) Part 1 (2018): 4376 - 4383.
- [8] Jadam T, **Datta S**, Mahapatra SS, *Electro-Discharge Machining of Inconel 718 Using Square Cross Sectioned Copper Tool Electrode: Studies on Topography and Metallurgical Features of the EDMed Work Surface*. **7th International Conference on Materials Processing and Characterization (ICMPC 2017)**, 17-19 March 2017, GRIET, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 5(2) Part 1 (2018): 4847 - 4854.
- [9] Sahu SK, Jadam T, **Datta S**, Dhupal D, Nandi G, *Application of SiC Powder Added in Kerosene Dielectric Media for Electro-Discharge Machining of Inconel 718 Super Alloys: Effects of Powder Concentration*. **International Conference on Materials Processing and Characterization (ICMPC 2018)**, Gokaraju Rangaraju Institute of Engineering and Technology, March 16-18, 2018, Hyderabad.
[Article Published in: Materials Today: Proceedings](#), 5(9) Part 3 (2018): 20297 - 20305.
- [10] Paul BK, Sahu SK, Jadam T, **Datta S**, Dhupal D, Mahapatra SS, *Effects of Addition of Copper Powder in the Dielectric Media (EDM Oil) on Performance of Electro-Discharge Machining of Inconel 718 Super Alloys*. **International Conference on Materials Processing and Characterization (ICMPC 2018)**, Gokaraju Rangaraju Institute of Engineering and Technology, March 16-18, 2018, Hyderabad.
[Article Published in: Materials Today: Proceedings](#), 5(9) Part 3 (2018): 17618 - 17626.
- [11] Sahu SK, Dey B, **Datta S**, *Selection of appropriate powder-mixed dielectric media (kerosene and used transformer oil) for desired EDM performance on Inconel 718 super alloys*. **9th International Conference on Materials Processing and Characterization**, 8-10 March 2019, GRIET, Hyderabad, Telangana 500090.
[Article Published in: Materials Today: Proceedings](#), 18 (Part 7) (2019): 4111 - 4119.
- [12] Rakesh M, **Datta S**, Mahapatra SS, *Effects of Depth of Cut during Machining of Inconel 718 using Uncoated WC Tool*. **9th International Conference on Materials Processing and Characterization**, 8-10 March 2019, GRIET, Hyderabad, Telangana 500090.
[Article Published in: Materials Today: Proceedings](#), 18 (Part 7) (2019): 3667 - 3675.
- [13] Kushwaha A, Jadam T, **Datta S**, Masanta M, *Assessment of surface integrity during electrical discharge machining of titanium grade 5 alloys (Ti-6Al-4V)*. **9th International Conference on Materials Processing and Characterization**, 8-10 March 2019, GRIET, Hyderabad, Telangana 500090.
[Article Published in: Materials Today: Proceedings](#), 18 (Part 7) (2019): 2477 - 2485.
- [14] Patnaik P, **Datta S**, Mahapatra SS, *WEDM Performance of Ti-6Al-4V: Emphasis on Multi-Cut Strategy and Effects of Electrode Wire*. **9th International Conference on Materials Processing and Characterization**, 8-10 March 2019, GRIET, Hyderabad, Telangana 500090.
[Article Published in: Materials Today: Proceedings](#), 18 (Part 7) (2019): 4102 - 4110.

- [15] Sahu SK, Jadam T, **Datta S**, *Performance of Dielectric Media (Conventional EDM Oil and Distilled Water) during Machining of Inconel 825 Super Alloy*. **9th International Conference on Materials Processing and Characterization**, 8-10 March 2019, GRIET, Hyderabad, Telangana 500090.
[Article Published in: Materials Today: Proceedings](#), 18 (Part 7) (2019): 2679 - 2687.
- [16] Sahu SK, Haldar N, **Datta S**, Kumar R, *Experimental Studies on AA6063-Cu Dissimilar Friction Stir Welding using Inconel 601 Tool*. **10th International Conference on Materials Processing and Characterization**, 21-23 February 2020, GLA University, Mathura- 28406 (UP).
[Article Published in: Materials Today: Proceedings](#), 26 (Part 2) (2020): 180 - 188.
- [17] Jadam T, Mohapatra A, **Datta S**, Masanta M, *Machining Behavior of Inconel 718 Superalloy: Effects of Cutting Speed and Depth of Cut*. **10th International Conference on Materials Processing and Characterization**, 21-23 February 2020, GLA University, Mathura- 28406 (UP).
[Article Published in: Materials Today: Proceedings](#), 26 (Part 2) (2020): 200 - 208.
- [18] Jadam T, **Datta S**, Masanta M, *Wear Morphology of Microwave Post-Treated WC-Co Tool during Machining of Inconel 718 Superalloy*. **International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)**, Oct 09-10, 2020, Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 38 (2021) 2174 - 2180.
- [19] Pandey K, Rahman LMA, **Datta S**, *Machinability of Inconel 825 superalloy under dry cutting environment with application of uncoated WC-Co tool*. **International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)**, Oct 09-10, 2020, Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 38 (2021) 2145 - 2150.
- [20] Bedi SS, Sahoo SP, Vikas B, **Datta S** (2020) *Influence of Cutting Speed on Dry Machinability of AISI 304 Stainless Steel*. **International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)**, Oct 09-10, 2020, Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 38 (2021) 2174 - 2180.
- [21] Sahu SK, Jadam T, **Datta S**, *Study of Machinability Assessment of Nickel Based Alloy using Electro-Discharge Machining with Transformer Oil as Dielectric*. **International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)**, Oct 09-10, 2020, Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India.
[Article Published in: Materials Today: Proceedings](#), 38 (2021) 2205 - 2212.
- [22] Behera GC, Jadam T, **Datta S**, *Influence of Cutting Insert (Uncoated and Coated Carbide) on Cutting force, Tool-Tip Temperature, and Chip Morphology during Dry Machining of Inconel 825*. **International Conference and Exposition on Mechanical, Material and**

Manufacturing Technology (ICE3MT2020), Oct 09-10, 2020, Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India.

[Article Published in: Materials Today: Proceedings](#), 38 (2021) 2664 - 2670.

- [23] Sahu SK, Thrinadh J, **Datta S**, *Parametric Studies on SiC-Abrasive Jet Assisted Machining of Alumina Ceramics*. **11th International Conference on Materials Processing and Characterization**, 15-17 December 2020, Indian Institute of Technology, Indore- 453552 (MP).

[Article Published in: Materials Today: Proceedings](#), 44 (Part-1) (2021) 1643 - 1652

DOI: [10.1016/j.matpr.2020.11.823](https://doi.org/10.1016/j.matpr.2020.11.823)

- [24] Pandey K, Sahoo SP, **Datta S**, *Machining Behaviour of Inconel 825 under Distilled Water Based Minimum Quantity Lubrication*. **11th International Conference on Materials Processing and Characterization**, 15-17 December 2020, Indian Institute of Technology, Indore- 453552 (MP).

[Article Published in: Materials Today: Proceedings](#), 44 (Part-1) (2021) 2386 - 2388

DOI: [10.1016/j.matpr.2020.12.449](https://doi.org/10.1016/j.matpr.2020.12.449)

- [25] Pandey K, **Datta S**, *Hot Machining of Difficult-to-Cut Materials: A Review*. **11th International Conference on Materials Processing and Characterization**, 15-17 December 2020, Indian Institute of Technology, Indore- 453552 (MP).

[Article Published in: Materials Today: Proceedings](#), 44 (Part-1) (2021) 2710 - 2715

DOI: [10.1016/j.matpr.2020.12.687](https://doi.org/10.1016/j.matpr.2020.12.687)

- [26] Bhavini NST, Sahoo SP, **Datta S**, *Machinability of Ti6Al4V as Influenced by Cutting Velocity, Tool Feed and Cutting Depth*. **13th International Conference on Materials Processing and Characterization (ICMPC)**, 22-24 April 2022, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, Telangana – 500090.

[Article Published in: Materials Today: Proceedings](#), 62(6) (2022) 3901 - 3908.

DOI: [10.1016/j.matpr.2022.04.548](https://doi.org/10.1016/j.matpr.2022.04.548)

- [27] Behera GC, Sahoo SP, Kumari S, **Datta S**, *Study on Wear Morphology of Uncoated and MT-CVD TiCN-Al₂O₃ Coated Carbide Inserts during Dry Machining of Inconel 825*. **2nd International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2022)**, organized by the Department of Mechanical Engineering, CVR College of Engineering, Hyderabad, India, during October 28-29, 2022.

[Article Published in: Materials Today: Proceedings](#), 2023 (Published Online)

DOI: [10.1016/j.matpr.2023.02.013](https://doi.org/10.1016/j.matpr.2023.02.013)

Publication in [Proceedings/ other Journals](#) through **INTERNATIONAL CONFERENCES**

1. **Datta S**, Routara BC, Bandyopadhyay A, Mahapatra SS, *Principal Component Analysis in Grey Based Taguchi Method for Optimization of Multiple Surface Quality Characteristics of 6061-T4 Aluminum in CNC End Milling*. **International Conference on Advances in Materials and Processing Technologies (AMPT 2010, October 24-27, 2010, Paris, France)**, AIP Conference Proceedings, 315(1) (2011): 1089 - 1094. DOI: [10.1063/1.3552325](https://doi.org/10.1063/1.3552325)

2. **Datta S**, Biswas A, Bhaumik S, Majumdar G, *Utility Theory for Evaluation of Optimal Process Condition of SAW: A Multi-Response Optimization Approach*, **International Conference on Advances in Materials and Processing Technologies (AMPT 2010, October 24-27, 2010, Paris, France)**, AIP Conference Proceedings, 1315(1) (2011): 902 - 907.
DOI: [10.1063/1.3552567](https://doi.org/10.1063/1.3552567)
3. Nayak N, Prasanna K, **Datta S**, Mahapatra SS, Sahu S, *A Novel Swarm Optimization Technique for Partner Selection in Virtual Enterprise*. **The IEEE International Conference on Industrial Engineering and Management (IEEM 2010)**, December, 7-10, 2010, Macau, China.
DOI: [10.1109/IEEM.2010.5674316](https://doi.org/10.1109/IEEM.2010.5674316)
4. Dhall PR, Mahapatra SS, **Datta S**, Mishra A, *An Improved Artificial Immune System for Solving Loading Problems in Flexible Manufacturing Systems*. **The IEEE International Conference on Industrial Engineering and Management (IEEM 2010)**, December, 7-10, 2010, Macau, China.
DOI: [10.1109/IEEM.2010.5674516](https://doi.org/10.1109/IEEM.2010.5674516)
5. Biswas A, Bhaumik S, Majumdar G, **Datta S**, Mahapatra SS, *Bead Geometry Optimization of Submerged Arc Weld: Exploration of Weighted Principal Component Analysis (WPCA)*. The 2nd International Conference on Mechanical, Industrial and Manufacturing Technologies (MIMT 2011), February 26 - 28, 2011, Singapore.
Article Published in: **Applied Mechanics and Materials**, Vol. 110-116, October 2011, pp. 790-798, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMM.110-116.790](https://doi.org/10.4028/www.scientific.net/AMM.110-116.790)
6. Mahapatra SS, **Datta S**, *Study of wear assessment and optimization of multiple properties of red mud filled polyester composites*. The 2nd International Conference on Mechanical, Industrial and Manufacturing Technologies (MIMT 2011), February 26 - 28, 2011, Singapore.
Article Published in: **Applied Mechanics and Materials**, Vol. 110-116, October 2011, pp. 1213-1220, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMM.110-116.1213](https://doi.org/10.4028/www.scientific.net/AMM.110-116.1213)
7. Dalai H, Debangana S, **Datta S**, Patel SK, Mahapatra SS, Biswas CK, *A Case Study on Quality and Productivity Optimization in Electric Discharge Machining (EDM)*, 14th International Conference on Advances in Materials and Processing Technologies (AMPT 2011), hosted by Yildiz Technical University, Istanbul, Turkey, July 13-16, 2011.
Article Published in: **Advanced Materials Research**, Vol. 445, January 2012, pp. 27 - 32, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMR.445.27](https://doi.org/10.4028/www.scientific.net/AMR.445.27)
8. Abhishek K, **Datta S**, Chatterjee S, Mahapatra SS, *Parametric Optimization in Turning of CFRP (epoxy) Composites: A Case Experimental Research with Exploration of HS Algorithm*, 6th International Conference on Mechanical and Electrical Technology (ICMET 2014), July 17-18, 2014, Bangkok, Thailand.
Article Published in: **Applied Mechanics and Materials**, Vol. 619, August 2014, pp. 54 - 57, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMM.619.54](https://doi.org/10.4028/www.scientific.net/AMM.619.54)
9. Matawale CR, Panigrahi S, Sahu SK, **Datta S**, Mahapatra SS, *Fuzzy-TOPSIS for Appropriate Site Selection for Establishing a Thermal Power Plant*, 6th International Conference on Mechanical and Electrical Technology (ICMET 2014), July 17-18, 2014, Bangkok, Thailand.

Article Published in: **Applied Mechanics and Materials**, Vol. 619, August 2014, pp. 385 - 389, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMM.619.385](https://doi.org/10.4028/www.scientific.net/AMM.619.385)

10. Chatterjee S, Abhishek K, Mahapatra SS, **Datta S**, Yadav RK, *NSGA-II Approach of Optimization to Study the Effects of Drilling Parameters in AISI-304 Stainless Steel*. 12th Global Congress on Manufacturing and Management (GCMM 2014), December 8-10, 2014, organized by School of Mechanical and Building Sciences, VIT University (in association with Queensland University of Technology, Australia), Vellore-632014.

Article Published in: **Procedia Engineering**, Vol. 97, 2014, pp. 78 - 84, Elsevier.

DOI: [10.1016/j.proeng.2014.12.227](https://doi.org/10.1016/j.proeng.2014.12.227)

11. Sonkar V, Abhishek K, **Datta S**, Mahapatra SS, *Multi-Objective Optimization in Drilling of GFRP Composites: A Degree of Similarity Approach*. 3rd International Conference on Materials Processing and Characterization, March 8-9, 2014, GRIET, Hyderabad.

Article Published in: **Procedia Materials Science**, Volume 6, pp. 538 - 543, 2014, Elsevier.

DOI: [10.1016/j.mspro.2014.07.068](https://doi.org/10.1016/j.mspro.2014.07.068)

12. Abhishek K, Panda BN, **Datta S**, Mahapatra SS, *Comparing Predictability of Genetic Programming and ANFIS on Drilling Performance Modeling for GFRP Composites*. 3rd International Conference on Materials Processing and Characterization, March 8-9, 2014, GRIET, Hyderabad.

Article Published in: **Procedia Materials Science**, Volume 6, pp. 544 - 550, 2014, Elsevier.

DOI: [10.1016/j.mspro.2014.07.069](https://doi.org/10.1016/j.mspro.2014.07.069)

13. Satpathy MP, Sahoo SK, **Datta S**, *Optimization of tensile strength during ultrasonic lap welding of dissimilar metals using Taguchi's philosophy*. The International Mechanical Engineering Congress (IMEC 2014) (Sponsored by TEQIP) Theme: Advancement of Mechanical Engineering to meet global challenges, June 13-15, 2014, Department of Mechanical Engineering, National Institute of Technology, Tiruchirappalli-620015, Tamil Nadu.

Article Published in: **Applied Mechanics and Materials**, Vol. 592-594, pp. 652 - 657, July 2014, Trans Tech Publications Ltd. DOI: [10.4028/www.scientific.net/AMM.592-594.652](https://doi.org/10.4028/www.scientific.net/AMM.592-594.652)

14. Rahul, Upadhyay C, **Datta S**, Biswal BB, Mahapatra SS, *Machining Performance Optimization for Electro Discharge Machining of Inconel 625: A Case Experimental Study*. 4th Asia Conference on Mechanical and Materials Engineering (ACMME 2016), July 14-16, 2016, Kuala Lumpur, Malaysia.

Article Published in: **International Journal of Materials, Mechanics and Manufacturing**, 5(4) (2017): 228 - 230. DOI: [10.18178/ijmmm.2017.5.4.324](https://doi.org/10.18178/ijmmm.2017.5.4.324)

15. Sen DK, **Datta S**, Patel SK, Mahapatra SS, *G-Resilient Supplier Selection in Fuzzy Environment: Application Potential of Satisfaction Function and Distance Based Approach*. 4th Asia Conference on Mechanical and Materials Engineering (ACMME 2016), July 14-16, 2016, Kuala Lumpur, Malaysia.

Article Published in: **Journal of Advanced Management Science**, 5(4) (2017): 302 - 305.

DOI: [10.18178/joams.5.4.302-305](https://doi.org/10.18178/joams.5.4.302-305)

16. Jadam T, Upadhyay C, **Datta S**, Gangopadhyay S, Mahapatra SS, *Analysis on Topography and Metallurgical Aspects of EDMed Work Surface of Inconel 718 Obtained Using Triangular Cross Sectioned Copper Tool Electrode*. IEEE International Conference on Management Systems (AMIAMS 2017), 3-5 February, 2017, organized by Department of Mechanical Engineering, Motilal Nehru National Institute of Technology, Allahabad, UP - 211004. DOI: [10.1109/AMIAMS.2017.8069204](https://doi.org/10.1109/AMIAMS.2017.8069204)
17. Abhishek K, **Datta S**, Masanta M, Mahapatra SS, *Fuzzy Embedded Imperialist Competitive Algorithm (ICA) for Multi-Response Optimization during Machining of CFRP (Epoxy) Composites*. IEEE International Conference on Management Systems (AMIAMS-2017), 3-5 February, 2017, organized by Department of Mechanical Engineering, Motilal Nehru National Institute of Technology, Allahabad, UP- 211004. DOI: [10.1109/AMIAMS.2017.8069196](https://doi.org/10.1109/AMIAMS.2017.8069196)
18. Jadam T, **Datta S**, Masanta M, *Surface Topographical Characteristics of Electro-Discharge Machined Ti-5Al-2.5Sn: Effects of Peak Current*, International Conference on Management Science and Industrial Engineering. May 24-26, 2019, Phuket, Thailand. <https://doi.org/10.1145/3335550.3335557>
19. Sahu AK, Sahu SK, **Datta S**, Mahapatra SS, *Machinability Appraisalment of Inconel 825 during Electro-Discharge Machining: Use of Transformer Oil as Dielectric Media*. International Conference on Management Science and Industrial Engineering, May 24-26, 2019, Phuket, Thailand. <https://doi.org/10.1145/3335550.3335558>
20. Sahoo SP, **Datta S**, *Machining Response of Ti64 Alloy under Nanofluid Minimum Quantity Lubrication (NFMQL)*. 12th International Conference on Materials Processing and Characterization (ICMPC 2021), October 6-9, 2021, National Institute of Technical Teachers Training and Research, Chandigarh - 160019. (Article published in **E3S Web of Conferences** (vol. 309, id.01087), EDP Sciences). DOI: [10.1051/e3sconf/202130901087](https://doi.org/10.1051/e3sconf/202130901087)
21. Barkey R, Anand S, Haldar N, **Datta S**, Karak SK, Das D, *Characterization of Wire Arc Additively Manufactured SS308L Part: Study of Microstructure and Mechanical Properties*, Proceedings of the **The 2nd International Conference in Mechanical Engineering (INCOM 2024)**, Department of Mechanical Engineering, **Jadavpur University**, Kolkata, during 5 - 6 January, 2024.

BOOK CHAPTER

1. Samantra C, **Datta S**, Mahapatra SS (2016) *A Fuzzy-Based Decision Support Tool for Appraisalment of Supplier's Quality Assurance Practices*. In A. Kumar, & M. Dash (Eds.) *Fuzzy Optimization and Multi-Criteria Decision Making in Digital Marketing* (Chapter 12, pp. 255-290). Hershey, PA: Business Science Reference. DOI: [10.4018/978-1-4666-8808-7.ch012](https://doi.org/10.4018/978-1-4666-8808-7.ch012)

2. Pandey K, **Datta S** (2021) *Machinability Study of Inconel 825 Superalloy under Nanofluid MQL: Application of Sunflower Oil as Base Cutting Fluid with MWCNTs and nano-Al₂O₃ as Additives*. **Book Chapter in: Sustainable Manufacturing and Design**, Chapter - 8, pp. 151 -197, Publisher: Elsevier Inc. USA. (Edited by: Kaushik Kumar, Divya Zindani, and Paulo J. Davim) DOI: [10.1016/B978-0-12-822124-2.00008-1](https://doi.org/10.1016/B978-0-12-822124-2.00008-1)
3. Jadam T, Panda D, Chatterjee S, **Datta S**, Sahoo SK, Mishra SC (2021) *Performance of Microwave Irradiated WC-Co Insert during Dry Machining of Inconel 718 Superalloys*, **Book Chapter in: Sustainable Manufacturing and Design**, Chapter – 6, pp. 103 - 132, Publisher: Elsevier Inc. USA. (Edited by: Kaushik Kumar, Divya Zindani, and Paulo J. Davim) DOI: [10.1016/B978-0-12-822124-2.00006-8](https://doi.org/10.1016/B978-0-12-822124-2.00006-8)
4. Kumari S, Jadam T, Behera GC, Sahu SK, **Datta S**, Nandi G, Pal PK (2021) *Role of Surface Cracking and Recast Layer Deposition on Formation of Hardened Layer during EDM of Inconel 825 with Varied Electrode Material*. In: Parwani AK, Ramkumar P, Abhishek K, Yadav SK (eds) *Recent Advances in Mechanical Infrastructure, Lecture Notes in Intelligent Transportation and Infrastructure*, Springer, Singapore. https://doi.org/10.1007/978-981-33-4176-0_7
5. Kumari S, Behera GC, Sahu SK, **Datta S**, Nandi G, Pal PK (2021) *Parametric Appraisal for EDM of Inconel 825 Superalloy using Cu and Cu-Ni Electrodes*. Chapter of the Book (edited by B.P. Sharma, G. Srinivasa Rao, S Gupta, P Gupta and A. Prasad from Amity University, Noida, UP) entitled **Advances in Engineering Materials** under **Lecture Notes in Mechanical Engineering**, pp. 149 - 159, Springer Nature Pte. Ltd., Singapore. DOI: https://doi.org/10.1007/978-981-33-6029-7_15

SPONSORED PROJECT

1. Project entitled **A Taguchi-PCA-Fuzzy Based Integrated Approach for Parametric Appraisal and Multi-Objective Optimization on Machining of CFRP Composites**, approved by Ministry of Science and Technology, Department of Science and Technology (DST), Science and Engineering Research Council under **Fast Track Scheme for Young Scientists**. **[Total grant approved: Rs. 17, 64, 000.00] [Ref. No.: SR/FTP/ETA-0140/2011 Dated 21 November 2011]** PI: **Prof. S Datta**
2. Project entitled **Development of Dissimilar Metal Joints by Ultrasonic Welding, its Characterization and Defect Assessment at Room and Elevated Temperature**, approved by Council of Scientific and Industrial Research (CSIR) (Human Resource Development Group), Govt. of India. . **[Total grant approved: Rs. 8, 64, 000.00] [Grant No.: 22 (0593)/12/EMR-II dated 02/4/2012]** PI: **Prof. SK Sahoo** & Co-PI: **Prof. S Datta**
3. Project entitled **Characterization of Additively Manufactured Maraging Steel 18Ni (300) Built Part: Fabrication and Dynamic Response Analysis of Topologically Optimized Auxetic Prototype Beam Aiming to Alleviate Seismic Protection of Archeological Heritage Constructions of Odisha**, approved by the State Council on Science & Technology, Science & Technology Department, Government Odisha, Bhubaneswar-751001. **[Total grant approved: Rs. 10, 000, 00.00] [Grant No.: 2149/ST, Bhubaneswar, dated 06/06/2022,**

ST-SCST-MISC-0045-2021] PI: **Prof. S Datta** & Co-PI: **Prof. T Roy (ME)** and **Prof. D Chaira (MM)**

4. Project entitled **Parametric Studies for Direct Metal Laser Sintering (DMLS) of Inconel 718: Fabrication of NACA 2412 Aerofoil Prototype by Utilizing Conventional Machining Wastes and Dynamic Response Performance Analysis**, approved by CSIR, New Delhi (**Vide Sanction Order 22/0855/23/EMR-II**). **[Total grant approved: Rs. 12, 000, 00.00]** PI: **Prof. S Datta** & Co-PI: **Prof. T Roy (ME)** and **Prof. D Chaira (MM)**

Ph. D. thesis guidance: - [S. Datta as Sole/ Principal supervisor]		
Name of the candidate(s)	Title of their thesis/ Broad Area	Status/Remarks
1. Swagatika Mishra Date of Enrolment: 14.07.2010 Registration Seminar delivered on 22.02.2011 Synopsis Seminar delivered on 19.07.2013 (Co-Supervisor: Prof. SS Mahapatra, ME)	<i>Studies on Some Aspects of Agility Appraisalment: Empirical Research and Case Studies In Indian Perspective</i>	Defense Seminar Delivered on 03.01.2014 [Awarded on 18.01.2014]
2. Chabbi Ram Matawale Date of Enrolment: 13.01.2012 Registration Seminar delivered on 22.01.2013 Synopsis Seminar delivered on 07.01.2015	<i>Evaluation of Leanness, Agility and Leagility in Industrial Supply Chain</i>	Defense Seminar Delivered on 28.05.2015 [Awarded on 16.01.2016]
3. Chitrasen Samantra Date of Enrolment: 27.07.2012 Registration Seminar delivered on 17.06.2013 Synopsis Seminar delivered on 29.06.2015	<i>Studies on Risk and Occupational Safety in Industrial Context: Some Case Research</i>	Defense Seminar Delivered on 20.11.2015 [Awarded on 16.01.2016]
4. Kumar Abhishek Date of Enrolment: 24/07/2012 Registration Seminar delivered on 05.06.2013 Synopsis Seminar delivered on 30.06.2015	<i>Experimental Investigations on Machining of CFRP Composites: Study of Parametric Influence and Machining Performance Optimization</i>	Defense Seminar Delivered on 29.12.2015 [Awarded on 16.01.2016]
5. Anoop Kumar Sahu Date of Enrolment: 23/07/2012 Registration Seminar delivered on 31.07.2013 Synopsis Seminar delivered on 01.07.2015	<i>Supply Chain Performance Appraisalment and Benchmarking for Manufacturing Industries: Emphasis on Traditional, Green, Flexible and Resilient Supply Chain along with supplier selection</i>	Defense Seminar Delivered on 12.12.2015 [Awarded on 16.01.2016]

6. Dilip Kumar Sen Date of enrolment: 05.02.2014 Registration Seminar delivered on 14.01.2015 Enhancement Seminar delivered on 14.01.2016 Synopsis Seminar delivered on 04.01.2017 (Co-Supervisor: Prof. SK Patel, ME)	<i>Analysis of Decision Support Systems of Industrial Relevance: Application Potential of Fuzzy and Grey Set Theories</i>	Defense Seminar Delivered on 02.06.2017 [Awarded on 19.01.2018]
7. Rahul Date of enrolment: 10.03.2014 Registration Seminar delivered on 14.01.2015 Enhancement Seminar delivered on 15.03.2016 Synopsis Seminar delivered on 08.03.2017 (Co-Supervisor: Prof. BB Biswal, ID) (On lien) Vice-Chancellor, OUTR (Formerly CET), Bhubaneswar	<i>Experimental Studies on Machinability of Inconel Super Alloy during Electro-Discharge Machining: Analysis of Surface Integrity and Metallurgical Characteristics of the EDMed Work Surface</i>	Defense Seminar Delivered on 18.09.2017 [Awarded on 19.01.2018]
8. Thrinadh Jadam Date of enrolment: 24.07.2017 Registration Seminar delivered on 11.06.2018 Enhancement Seminar delivered on 26.07.2019 Synopsis Seminar delivered on 26.06.2020 (Co-Supervisor: Prof. M Masanta, ME)	<i>Experimental Studies on Machinability Assessment of Superalloys (Inconel 718 and Ti-6Al-4V) during Traditional and Non-Traditional Machining</i>	Defense Seminar Delivered on 02.02.2021 [Awarded on 21.03.2021]
9. Kshitij Pandey Date of enrolment: 24.07.2018 Registration Seminar delivered on 03.07.2019 Enhancement Seminar delivered on 19.08.2020 Synopsis Seminar delivered on 06.05.2022	<i>Experimental Studies on Machinability of Inconel 718 and 825 Superalloys under Application of Different Coolant Media and Cutting Inserts</i>	Defense Seminar Delivered on 17.01.2023
10. Sarthak Prasad Sahoo Date of enrolment: 24.07.2018 Registration Seminar delivered on 27.06.2018 Enhancement Seminar delivered on 19.08.2020 Synopsis Seminar delivered on 15.03.2023	<i>Effect of Tool Material and Lubrication Condition on Machinability of Ti64 Alloy</i>	Defense Seminar Delivered on 09.08.2023
11. Nimai Haldar Date of enrolment: 11.09.2020 Registration Seminar delivered on 28.10.2021 (Co-Supervisor: Dr. Atanu Das, CSIR-NML Jamshedpur)	<i>Experimental Studies on Wire Arc Additive Manufacturing of SS308L and Inconel 718</i>	Ongoing

12. Sudipta Swain Date of enrolment: 09.01.2023 Registration Seminar delivered on 70.03.2024 (Co-Supervisor: Dr. T Roy, ME, NITRKL)	<i>Additive Manufacture of Maraging Steel Part: Characterization of Microstructure and Mechanical Properties</i>	Ongoing
13. Raj Kumar Bisoyi Date of enrolment: 25.07.2023 (Co-Supervisor: Dr. T Roy, ME, NITRKL)	<i>Characterization of Powder-Bed Fusion Based Additively Manufactured Inconel 718: Aspects of Microstructure and Mechanical Properties</i>	Enrolled

Ph. D. thesis guidance [S. Datta as Co-supervisor in NIT Rourkela]: -		
Name of the candidate(s)	Title of their thesis/ Board Area	Status/Remarks
1. Mantra Prasad Satpathy Date of Enrolment: 14.09.2012 Registration Seminar delivered on 26.07.2013 Synopsis Seminar delivered on 22.06.2016 Principal Supervisor: Prof. Susanta Kumar Sahoo ME, NIT Rourkela	<i>Ultrasonic Spot Welding of Dissimilar Metal Sheets: An Experimental, Numerical and Metallurgical Investigation</i>	Defense Seminar Delivered [Awarded on 19.01.2018]

ACADEMIC OUTREACH

- ⇒ **Supervised Summer Internship Project 2011** entitled “Application of Fuzzy Based Decision-Making Tools for Quality-Productivity Improvement in Manufacturing Environment: A Case Study” by Ms. ANKITA SAHU, from Department of Mechanical Engineering, ITER, Bhubaneswar.
- ⇒ **Examiner of the PhD thesis** entitled “Studies on Angular Distortion, Weld Bead Geometry, Ferrite Number and Metallography of AISI202 Grade Stainless Steel Gas Tungsten Arc Welding Plates” by Sudhakaran R, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2012.
- ⇒ **Delivered a talk** on *Taguchi based Multi-Objective Optimization* in the Short Term Training Programme on **Design of Experiments: An Optimization Tool (DOEOT-2013)** during 27-29 December 2013, organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela-769008.
- ⇒ **Delivered an invited talk** on *Multi-response optimization and Taguchi method* in the Faculty Development Program on **Soft Computing Techniques in Engineering Applications (SCTEA-2014)**, 20th to 24th January 2014, organized by the Department of Mechanical Engineering, College of Engineering and Technology, Bhubaneswar- 751003.
- ⇒ **External Examiner** for the Viva Voce examination of the **M. Tech. Thesis** entitled “*Experimental study and analysis of glass fiber reinforced epoxy composite material*”,

- submitted by **Sri Parijat Roy**, (Exam. Roll No. M4MEC14-03) on 16.06.2014 in the **Department of Mechanical Engineering, Jadavpur University**, Kolkata 700032.
- ⇒ **External Examiner** for the Viva Voce examination of the **M. Tech. Theses** entitled (i) “*Optimization of cutting parameters for glass fiber composite*”, submitted by **Mohammad Shamim**, and (ii) “*EDM Optimization*”, submitted by **Richa Verma** on 19.07.2014 in the Department of Manufacturing Engineering, **National Institute of Foundry and Forge Technology (NIFFT)**, Ranchi-834003, Jharkhand.
 - ⇒ **Guest Editor** of the **Special Issue on: “Leagile Supply Chain Management”**, **International Journal of Process Management and Benchmarking (IJPMB)**, Inderscience Publishers, Switzerland.
 - ⇒ **Delivered a talk** on *Taguchi based Multi-Objective Optimization* in the Short Term Training Programme on **Design of Experiments: An Optimization Tool (DOEOT-2014)** during 22-25 December 2014, organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela-769008.
 - ⇒ **Examiner of the PhD thesis** entitled “*Scheduling Optimization of Cellular Manufacturing System in Different Environment by Using Meta-heuristic Methods*” by **Karthikeyan, S**, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2015.
 - ⇒ **Delivered a talk** on *Taguchi based Multi-Objective Optimization* in the Short Term Training Programme on **Design of Experiments: An Optimization Tool (DOEOT-2015)** during 21-24 December 2015, organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela-769008.
 - ⇒ Delivered an **invited talk** in One day **Faculty Development Programme on Advanced Tools and Techniques for Data Analysis and Optimization in Manufacturing**, on 5th March 2016, organized by Department of Mechanical Engineering, Gandhi Engineering College, Badaragunathpur, Bhubaneswar, Odisha.
 - ⇒ Acted as **Examiner of the thesis** entitled “*A Study of Pulsed Laser Welding of Dissimilar Transparent Thermoplastics without Filler Material in Lap Joint Configuration*” submitted by **Rituparna Ghosh** in connection with **Masters of Laser Technology Final Semester Examination 2016** and corresponding **oral examination** held on 10/06/2016 at School of Laser Science and Engineering (SLSE) under Faculty of Engineering and Technology, Jadavpur University, Kolkata-700032.
 - ⇒ Delivered **invited talk** in the **Faculty Development Programme on “Engineering Optimization”** from 27/06/2016 to 28/06/2016 at the School of Mechanical Engineering, **Kalinga Institute of Industrial Technology, KIIT University**, Bhubaneswar-751024, Odisha.
 - ⇒ **External Examiner** for the Viva Voce examination of the **M. Tech. Theses** entitled (i) “*Multi-Objective Genetic Algorithm for Flexible Job-Shop Scheduling*”, submitted by **Sunita Nayak**, (ii) “*Multi-Objective Process Parameter Optimization of Wire Electrical Discharge Machining (WEDM) using Artificial Neural Network (ANN)*”, submitted by **Shivam Varma**, and (iii) “*QEA for Multi-Objective Optimization of EDM Process Parameters*”, submitted by **Ankush Kalia** (guided by **Prof. Anoop Kumar Sood**) on 29/06/2016 in the Department of Manufacturing Engineering, **National Institute of Foundry and Forge Technology (NIFFT)**, Ranchi-834003, Jharkhand.
 - ⇒ **Examiner of the PhD thesis** entitled “*Prediction and Optimization of Ferrite Number of Solution Annealed Duplex Stainless Steel Clad Metals*” by **V. Rathinam, S**, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2016.

- ⇒ **Examiner of the PhD thesis** entitled “*Study on Weld Bead Parameters of Super Duplex Stainless Steel Claddings Deposited by FCAW*” by **B. Senthilkumar**, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2016.
- ⇒ **Delivered a lecture** in the **Short Term Training Program on Optimization Methods in Engineering Design** (sponsored by TEQIP-II), during 29-30 September 2016 in the Department of Mechanical Engineering, National Institute of Technology, Rourkela.
- ⇒ Delivered a **Key Note speech** on ‘*Manufacturing Optimization*’ and participated as a **Session Chair** in the **All India Conference on Digital Engineering – Opportunities in Mechanical and Mechatronics Domain (AICON 2017)** organized by Department of Mechanical Engineering and Mechatronics Engineering on 21st of April, 2017 at **Chhatrapati Shivaji Institute of Technology, Durg**, Chhattisgarh 491001.
- ⇒ **Examiner of the MS thesis** entitled “*A Study of the Effect of Shielding Gas on Gas Metal Arc Welding of Corten Steel Joints*” by **Mr. Byju John**, submitted in **Centre of Excellence in Corrosion and Surface Engineering (CECASE), National Institute of Technology, Tiruchirappalli**, Tamil Nadu-620015, 2017.
- ⇒ Acted as **Examiner of the thesis** entitled “*An experimental study of laser welding of dissimilar transparent plastics*” submitted by **Raktim Bhattacharya** (Exam. Roll No.: M4LST1704) in connection with **Masters of Laser Technology** (in School of Laser Science and Engineering (SLSE) under Faculty of Engineering and Technology) and corresponding **oral examination** held on 09/06/2017 at Instrumentation Science (USIC Building), Jadavpur University, Kolkata-700032.
- ⇒ **Delivered a lecture** on ‘*Fuzzy based Decision Making Techniques in the Context of Industrial Engineering*’ in the **Faculty Development Programme** during June 26-27, 2017 in the School of Mechanical Engineering, **KIIT University**, Bhubaneswar, Odisha-751024.
- ⇒ **Examiner** for Evaluation of Thesis and for conducting Comprehensive Viva Voce of M. Tech. 4th semester students of **Parala Maharaja Engineering College (PMEC), Berhampur, Odisha** 761003 on 15/07/2017.
- ⇒ Delivered an invited talk on *Application Potential of Multi-Response Optimization and Multi-Criteria Decision Making Approaches in the Context of Production Engineering* during One Week Short Term Course on **Composites: Manufacturing, Machining, Modeling and Optimization (CMMMO)** organized by the Department of Production Engineering, **Veer Surendra Sai University of Technology (VSSUT) Burla**, Sambalpur–768018 (Odisha) under Quality Improvement Programme (QIP) scheme of All India Council for Technical Education (AICTE), Government of India during **February 19-24, 2018**.
- ⇒ Delivered invited lectures in **FDP on Optimization Process with Design of Experiments (OPDE 2018)** during **May 5-7, 2018**, organized by Department of Mechanical Engineering, **Gandhi Institute of Engineering and Technology (GIET), Gunupur**, Odisha-765022.
- ⇒ **Examiner of the PhD thesis** entitled **Application of Novel Heuristic and Genetic Methods for Efficient Sheet Metal Cutting Processes** by **Vijay Anand K**, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2018.
- ⇒ Delivered invited lectures in TEQIP sponsored two weeks short term course on **Material, Manufacturing and Management (MMM 2018)** during 14th to 26th May 2018 at Department of Mechanical Engineering, **VSSUT, Burla**, Sambalpur (Odisha).
- ⇒ **Examiner of the PhD thesis** entitled **Investigations on Mechanical and Metallurgical Properties of ASTM A106 Grade-B Pipes by Automated MIG Welding Process** by **Sudhakar R**, in the Faculty of Mechanical Engineering, **Anna University**, Chennai 600025, 2018.

- ⇒ **Member of the Technical Advisory Committee** of the National Conference on **Mechanical, Production and Industrial Engineering (NCMPIE 2018)** sponsored by **Madhya Pradesh Council of Science and Technology (MPCST)**, organized by Department of Mechanical Engineering, **St. Aloysius Institute of Technology (SAIT)**, Jabalpur (MP 482002) during August 31-September 01, 2018.
- ⇒ **Supervised Summer Internship Project 2018** entitled "*Study on Parametric Influence on Electro-Discharge Machining Performance of Inconel 825 Super Alloys: A Case Experimental Research*" by **Mr. Kautuk Singh**, from Department of Mechanical Engineering, **Institute of Technical Education and Research-Siksha 'O' Anusandhan (Deemed to be University)**, Bhubaneswar 751030.
- ⇒ Delivered an invited talk in TEQIP-III Sponsored Five Day Workshop on **Optimization Techniques and Applications in Manufacturing (OTAM)**, organized by Department of Production Engineering, Veer Surendra Sai University of Technology (VSSUT), Burla, Sambalpur, Odisha-768018, during 15th to 19th January 2019.
- ⇒ Delivered an **Invited Talk** in TEQIP-III Sponsored One Week Workshop on **Application of Optimization Technique on Advanced Manufacturing Processes (AOTAMP-2019)**, during 25th March 2019 to 30th March 2019, at Department of Mechanical Engineering, **VSSUT**, Burla (Sambalpur).
- ⇒ Member of the **Advisory committee** of the **International Conference on Recent Advances in Mechanical Infrastructure (ICRAM-2019)**, during 20-21 April, 2019, organized by Infrastructure Technology Research and Management (ITRAM), Ahmedabad, Gujarat-380026.
- ⇒ Examiner of the **PhD Thesis** entitled **Experimental Investigations on Wear and Drilling Delamination Characteristics of Fiber Reinforced Hybrid Polymer Composite**, submitted by **Mr. Ragunath S** in the Faculty of Mechanical Engineering, **Anna University**, Chennai-600025.
- ⇒ Examiner of the **PhD Thesis** entitled **An Investigation on the Remanufacturing Practices in the Closed Loop Supply Chain**, submitted by **Mr. Deepak Singhal** in School of Mechanical Sciences, **Kalinga Institute of Industrial Technology (KIIT) (Deemed to be University)**, Bhubaneswar-751024. (Viva conducted on 22/10/2019)
- ⇒ Examiner of the **PhD Thesis** entitled **Synthesis and Property Evaluation of Aluminum-Cr₃C₂ Surface Composites Prepared via Friction Stir Processing**, submitted by **Mr. Satheeshkumar J** in the Faculty of Mechanical Engineering, **Anna University**, Chennai-600025.
- ⇒ Examiner of the **PhD Thesis** entitled **Some Studies on Mechanical and Metallurgical Characteristics of Al 7075/SiC/Al₂O₃ Hybrid Metal Matrix Composites**, submitted by **Mr. Pugalenth P** in the Faculty of Mechanical Engineering, **Anna University**, Chennai-600025.
- ⇒ Delivered Key-Note Speech (on 28th November 2019) during 5 Days' Workshop on **Optimization Techniques in Multi-Disciplinary Research** held during 25th to 29th November 2019, organized by Department of Mechanical Engineering, **National Institute of Technology Agartala** (Tripura).
- ⇒ Examiner of the **PhD Thesis** entitled **Investigations into Various Mechanical and Metallurgical Properties for Producing High Quality Joint in Hastelloy C276 /Austenitic Stainless Steel 321 Sheet Metal Using Robotic MIG Welding**, submitted by **Mr. Raja S** in the Faculty of Mechanical Engineering, **Anna University**, Chennai-600025.
- ⇒ **Member of the Advisory Committee** for **International Conference on Industry 4.0 and Circular Economy 2020 (ICICE-2020)** from July 24th-26th, 2020, organized by School of Mechanical Engineering, **KIIT (Deemed to be University)**, Bhubaneswar, Odisha-751024.

- ⇒ Delivered an invited talk through online **Webinar** in On-Campus Online Training Programme (OOTP) on '*Optimization in Engineering*' organized by **Rasoni Group of Institutions (RGI)**, Nagpur- 440001 on 23rd May 2020.
- ⇒ Conducted M. Tech. defense viva at School of Mechanical Engineering, Kalinga Institute of Industrial Technology (KIIT) (Deemed to be University), Bhubaneswar, Odisha -751024 on 28th May 2020:
 - ❖ M. Tech. Thesis entitled **The Effect of Anvil Geometry on Ultrasonically Welded Al-Ni Joints at Various Weld Parametric Condition** by Chinmay Kumar Pani;
 - ❖ M. Tech. Thesis entitled **Properties and Abrasion Behaviour of Sea Water Aged and Cold Treated Carbon Fiber Reinforced Polymer Composites** by Sandeep Kumar Pradhan;
 - ❖ M. Tech. Thesis entitled **Performance Evaluation of Electrode Materials during EDM of Aluminum Based Hybrid MMCs** by Debasmita Pani;
 - ❖ M. Tech. Thesis entitled **Study and Analysis of Barriers of SSCM Implementation in Indian Shrimp Industry** by Anshumaan Biswal;
 - ❖ M. Tech. Thesis entitled **Sustainability and its Challenges in Indian Manufacturing Sector** by Aneesh Kuruvilla.
 - ❖ M. Tech. Thesis entitled **Hard Turning Performance Analysis using PVD Tool under Flood Cooling Cutting Environment** by Saswat Khatai.
- ⇒ Examiner of the **PhD Thesis** entitled **Experimental Investigations on the Effect of Heat Treatment on Mechanical Properties of Aluminium Hybrid Composites**, submitted by **Mr. Karuppusamy T** in the Faculty of Mechanical Engineering, **Anna University**, Chennai-600025.
- ⇒ Member of the **Advisory committee** of **2nd International Conference on Recent Advances in Mechanical Infrastructure (ICRAM 2020)**, organized by The Department of Mechanical Engineering of **Institute of Infrastructure Technology Research and Management (IITRAM)**, **Ahmedabad**, Gujarat - 380026, during 21st to 23rd August, 2020.
- ⇒ Delivered an invited talk in TEQIP-III Sponsored Faculty Development Programme on **Advances in Materials & Machining processes for Recent Industrial Applications (AMMPRIA-2020)**, organized by Department of Production Engineering Veer Surendra Sai University of Technology Burla, Odisha, 768018 during September 7-11, 2020.
- ⇒ Delivered an invited talk in TEQIP-III Sponsored FDP on **Recent Advancements in Manufacturing and Materials Processing (RAMMP-2020)**, organized by Department of Mechanical Engineering Veer Surendra Sai University of Technology Burla, Odisha, 768018 during September 10-14, 2020.
- ⇒ Delivered an invited talk in TEQIP-III Sponsored Faculty Development Programme on **Recent Advancement of Materials and its Application (RAMA-2020)**, organized by Department of Mechanical Engineering Veer Surendra Sai University of Technology Burla, Odisha, 768018 during September 15-19, 2020.
- ⇒ Delivered an **Invited Talk** on "*Application of Multi-attribute Decision Making Techniques in Operations Management*" in **FDP on Optimization Techniques in Operations Management** [Under the Aegis of AICTE Training and Learning (ATAL) Academy] organized by Department of Mechanical Engineering, **Chhatrapati Shivaji Institute of Technology (CSIT)**, Durg, Chhattisgarh-491001, during October 12-16, 2020.
- ⇒ Delivered an **Invited Talk** on "*Decision Making in Product Selection and Product Quality Optimization*" in AICTE Sponsored Short Term Training Programme on **Design, Simulation, Development and Characterization of Composites with Advanced Techniques (Phase I)**,

organized by the Department of Mechanical Engineering, **GIET University**, Gunupur, Odisha-765022, during November 15-21, 2020.

- ⇒ Delivered an **Invited Talk** in AICTE Sponsored Short Term Training Programme on **Design, Simulation, Development and Characterization of Composites with Advanced Techniques (Phase II)**, organized by the Department of Mechanical Engineering, **GIET University**, Gunupur, Odisha-765022, during 30th November to 05th December, 2020.
- ⇒ Examiner of Graduate Project Theses submitted (Industrial Engineering) in Indian Institution of Industrial Engineering (IIIE), Navi Mumbai, India 2020.
 - ▲ **PRINCE JOHN(S-37813)**: Time Study to Improve Product Delivery Time
 - ▲ **NISHIT TRIVEDI (S-40607)**: Lead Time Reduction and Productivity Improvement through Lean Manufacturing
 - ▲ **GIREESHA H J (S-44935)**: Improvement in Electro Optical System Mounting Bracket Access Cover in ALH MK III Helicopter
 - ▲ **NAVEENA P (S-44823)**: Manufacturing Tool Cost Reduction in Apache Machining Cell through Lean Principles
- ⇒ Expert Panel Member (**Subject Expert**) of the **PhD Oral Examination Board** of Mr. G. Gokilakrishnan (Reg. No: 1314269112 of Anna University, Chennai) during viva voce conducted on 8th December 2020 in Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu.
- ⇒ Delivered an **Invited Talk** in AICTE Sponsored Short Term Training Programme on **Design, Simulation, Development and Characterization of Composites with Advanced Techniques (Phase III)**, organized by the Department of Mechanical Engineering, **GIET University**, Gunupur, Odisha-765022, during December 14-19, 2020.
- ⇒ Acted as **Subject Expert** for the Seminar Presentation for the shortlisted candidates for Faculty Recruitment at **Indian Institute of Information Technology, Design, and Manufacturing (IIITDM)**, Kancheepuram, Chennai, Tamil Nadu 600127 during December 16-17, 2020.
- ⇒ Examiner for evaluating the PhD thesis entitled **Synthesis and Characterization of AA2024 and AA6061- Al₂O₃/SiC/Gr Reinforced Hybrid Metal Matrix Composite**, submitted by **Mr. Natrayan L (Roll No. 17PHD1064)** submitted in the School of Mechanical Engineering, VIT Chennai-600127.
- ⇒ Delivered an **Invited Talk** in TEQIP-III Sponsored STTP on **Advances on Composites and Coatings** during 2nd to 6th February 2021, organized by **Einstein Academy of Technology and Management**, Khordha, Bhubaneswar-752060, Odisha.
- ⇒ Delivered an **Invited Talk** in AICTE Sponsored One Week Online STTP on **Design of Experiments in Engineering** (Phase-III), 8th -13th February 2021, organized by Department of Mechanical Engineering, **BV Raju Institute of Technology** (Autonomous), Vishnupur, Narsapur, Medak-502313, Telangana State.
- ⇒ Delivered an **Invited Talk** in TEQIP-III Sponsored Online Short Term Course (STC) on **Recent Trends in Mechanical Engineering (RTME-2021)**, 1st to 12th February 2021, Organized by Department of Mechanical Engineering, **Indira Gandhi Institute of Technology (IGIT) Sarang** (An Autonomous Institute of Govt. of Odisha), Dhenkanal, Odisha-759146.
- ⇒ Delivered an **Invited Talk** in AICTE sponsored six days Online Short Term Training Programme on **Advances in Materials and Machining (AMM 2020)** Phase III from 15th March to 20th March, 2021, organized by Department of Mechanical Engineering, **Ajay Binay Institute of Technology**, Cuttack, Odisha 750314.

- ⇒ Joined as Invited Expert Member in the **Department Advisory Board Meeting** to discuss about the Academic Activities of B.E Mechanical Engineering Programme and M.E Industrial Engineering Programme on 28th April 2021 at **Kumaraguru College of Technology**, Coimbatore.
- ⇒ Examiner of **Master of Engineering** theses entitled **Comparative Study of Mechanical Properties on Different Infilled Pattern FDM 3D Printed ASA Parts** submitted by **ASISH TRIPATHY** (Roll No. M4MEC21030) and **Studies and Mechanical Characterization of FDM 3D-Printed Biodegradable PLA Parts** submitted by **SAGNIK CHOWDHURY** (Roll No. M4MEC21003) in Mechanical Engineering Department, Faculty of Engineering and Technology, **Jadavpur University**, Kolkata-700032.
- ⇒ Examiner for evaluating the PhD thesis entitled **Studies on Mechanical and Tribological Behaviour of AlMg1SiCu Hybrid Composites**, by **Mr. Rajesh S** submitted in the Faculty of Mechanical Engineering, Anna University, Chennai 600 025.
- ⇒ Expert Panel Member (**Subject Expert**) of the **PhD Oral Examination Board** of **Mr. K Raju** (Thesis title: *Synthesis and Characterization of Aluminum-Lithium-Silicon Nitride Metal Matrix Composite*, submitted in Anna University, Chennai) during viva voce conducted on 1st September 2021 in **M. Kumarasamy College of Engineering Thalavapalyam**, Karur.
- ⇒ Examiner of **Master of Engineering** theses entitled **Effect of Process Parameters on Surface Roughness of SS 304 by Abrasive Water Jet Machining** submitted by **Sayan Samanta** (Roll No.: M4MEC21014) in Mechanical Engineering Department, Faculty of Engineering and Technology, **Jadavpur University**, Kolkata-700032.
- ⇒ Examiner for evaluating the PhD thesis entitled **Investigations on Fabrication, Optimization and Life Cycle Assessment of Automotive Products Fabricated Using Fused Deposition Modelling**, by **Mr. RAMESH P** submitted in the Department of Production Engineering, National Institute of Technology, Tiruchirappalli-620015.
- ⇒ Examiner of PhD thesis entitled **"Experimental Investigation on Microstructural, Mechanical and Machining Characteristics of Al-based Hybrid Nanocomposites"** submitted by **Sourabh Kumar Soni** in School of Mechanical Engineering, Vellore Institute of Technology, Vellore - 632014.
- ⇒ Appointed as **question paper setter** for **Rapid Prototyping** (M. Tech. Mechanical Engineering; Production Specialization), **Non-Traditional Machining** (B. Tech. Production Engineering) and **Automation and Numerical Control Machines** (B. Tech. Production Engineering) for End Semester Examination (December 2021) of VSSUT, Burla, Odisha 768018.
- ⇒ Examiner of M.S. (by research) thesis entitled **"FIT manufacturing readiness assessment and implementation in a heavy engineering industry"**, submitted by **Mr. Suraj Kumar**, in the Department of Production Engineering, **National Institute of Technology, Tiruchirappalli** - 620015.
- ⇒ Examiner for evaluating the PhD thesis entitled **Application of Masking Techniques and Reverse EDM Technique for Pattern Generation by Selective Area Deposition of Materials using Powder Metallurgical Green Compact Tools and Sintered Tool Electrodes**, by **Mr. Rashed Mustafa Mazarbhuiya** submitted in the Department of Mechanical Engineering, **National Institute of Technology Meghalaya**, Shillong, Meghalaya 793003.
- ⇒ Delivered an invited talk on **"Engineering applications of auxetic metamaterial cellular structures: fabrication through additive manufacturing"** in the Seminar on 'Advances in

Production Engineering' on 5th April, 2022 in connection with the 32nd Foundation Day of **The Institution of Engineers (IIE India)**, Tripura State Centre.

- ⇒ Acted as paper setter for the written examination for the recruitment of non-teaching staffs (Group C: Technician in 2022) of National Institute of Technology Agartala, Tripura-799046.
- ⇒ Examiner for evaluating the PhD thesis entitled ***Study on the Effect of Friction Surfacing Process Parameters on AA6351 Surfacing of Mild Steel***, by **Mr. M Gnanasekaran** submitted in the Faculty of Mechanical Engineering, Anna University, Chennai 600025.
- ⇒ Examiner of the PhD thesis entitled ***Analyzing the effect of product life cycle management in foundries in the perspective of performance*** submitted by **Mr. Vijayakumar HK** (USN: 3PD15PMJ15), **Department of Industrial and Production Engineering**, PDA College of Engineering, Kalaburagi-585102, Karnataka under **Visvesvaraya Technological University**, Belagavi – 590 014.
- ⇒ Examiner of the PhD thesis ***Investigation on Water Hyacinth (Eichhornia Crassipes) Natural Plant based Polymer Composite Material Properties*** by **Mr. A Ajithram** (Reg. No. 2019141112), Department of Mechanical Engineering, School of Mechanical, Aero, Auto and Civil Engineering, **Kalasalingam Academy of Research and Education** (Deemed to be University), Krishnankoil – 626126, Tamil Nadu in July 2022.
- ⇒ External Member of the **Doctoral Scrutiny Committee (DSC)** of **Mr. Nameet Kumar Sethy**, enrolled for PhD in the Department of Mechanical Engineering, The Indira Gandhi Institute of Technology (IGIT), Sarang, Odisha - 759146.
- ⇒ **Advisory Committee Member** for the 4th International Conference on Recent Advances in Mechanical Infrastructure (**ICRAM 2022**), organized by Department of Mechanical and Aerospace Engineering, **Institute of Infrastructure, Technology, Research and Management (IITRAM)**, Ahmedabad, Gujarat – 380026 in collaboration with Department of Mechanical Engineering, Indian Institute of Technology, Bhilai, during 16 - 18 December, 2022.
- ⇒ Invited as **Session-Chair** on 28th October 2022 (Session No. 02) in the **2nd International Conference and Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2022)**, organized by the Department of Mechanical Engineering, **CVR College of Engineering, Hyderabad**, India, during October 28-29, 2022.
- ⇒ Examiner for evaluating the PhD thesis entitled ***Investigation, Synthesis and Characterization of PLA Composite Material through Extrusion Technique for FFF 3D Printing*** by **Mr. Mohammed Basheer E P** submitted in the Faculty of Mechanical Engineering, Anna University, Chennai 600025.
- ⇒ Examiner for evaluating the PhD thesis entitled ***An Effective Selection of the Supplier and Allocating Order Quantity in Supply Chain by Integrating Various Tools and Techniques*** by **Ms. Lavanpriya C** submitted in the Faculty of Mechanical Engineering, Anna University, Chennai 600025.
- ⇒ Examiner of the PhD thesis entitled ***Experimental Investigation on Cryogenic Assisted Machining of Nimonic C-263 Super-Alloy with Cryogenically Treated Tools*** submitted by **Jadhav Prashant Sampatrao** in the School of Mechanical Engineering, **VIT, Vellore** – 632014, Tamil Nadu.
- ⇒ Advisory Committee Member for the **2nd International Conference on Aspects of Materials and Mechanical Engineering (ICMME-2023)** on October 13-14, 2023, organized by the Department of Mechanical Engineering GLA University, Mathura and Universidade Federal do Rio Grande do Sul, Brazil.
- ⇒ Delivered Keynote Speech in the **2nd International Conference on Aspects of Materials and Mechanical Engineering (ICMME-2023)** on October 13-14, 2023, organized by the

Department of Mechanical Engineering GLA University, Mathura and Universidade Federal do Rio Grande do Sul, Brazil.

- ⇒ Examiner for evaluating the PhD thesis entitled ***Experimental Investigation on Joining of Dissimilar Metals of AISI 316 and Nickel 201 using CO₂ Laser*** by Mr. Krishna Kumar G submitted in the Faculty of Mechanical Engineering, Anna University, Chennai 600025.
- ⇒ Examiner of the PhD thesis entitled ***Strength and Thermal Analysis of Sandwich Pipe for Deep Water Applications*** by P. Satyanarayana Raju, submitted to the School of Engineering and Technology, Department of Mechanical Engineering, GIET University, Gunupur 765022, December 2023.
- ⇒ Examined the PhD thesis entitled ***Optimization of Suction Muffler in a Reciprocating Compressor by using Taguchi DOE Method by Both Theoretical and Experimental Approach*** by Mr. Santosh Kumar Kallepalli submitted in the Department of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad - 500 007 in December 2023.

ADMINISTRATIVE RESPONSIBILITIES AT NIT, ROURKELA

- HOD, Central Workshop (Since 1st July 2015 to 30th June 2018)
- Warden, M Visweswaraya Hall of Residence (Since 1st July 2018 to 30th June 2020)

SHORT TERM COUSE/ WORKSHOP/ AWARENESS PROGRAMME CONDUCTED

- Organized a **Three-day Short Term Course on Multi-Objective Optimization Methods and Applications in Manufacturing (MOOMAM-2014)**, held during **June 6-8, 2014**, at Department of Mechanical Engineering, National Institute of Technology, Rourkela-769008. **[Dr. S Datta was the main coordinator and course teacher; Total number of outside participants was =25]**
- Organizing Committee Member for the Workshop to Observe “**International Day for the Elimination of Violence against Women**” on November 25, 2022 for the **Implementation of Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013**.
- Coordinator of the **National Workshop (05-days) on Additive Manufacturing: Knowledge and Skill Development towards Industry 4.0 (AM-KSD 2023) (Physical Mode)**, during 10th June – 14th June 2023, conducted at Department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha-769008.
- Co-Coordinator of the **National Workshop (05-days) on Realizing Key-Enablers to Achieve the 21st Century Vision in Academies: In the Context of Indian Technical Institutions (RKE-21CVA 2023)**, during 8th July – 12th July, 2023 (**Virtual Mode**), organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha-769008.

- Coordinator of the **National Workshop** (05-days) on **3D Printing: State-of-Art and Future Prospects 3DP-2023 (Virtual Mode)**, during July 15-19, 2023, organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha-769008.
- Co-coordinator of the **National Workshop** (05-days) on **Sustainable Manufacturing & Industry 4.0: Special emphasis on 3D printing & microwave material processing (SMI 4.0) (Virtual Mode)**, during July 01-05, 2024, organized by Department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha-769008.

ACHIEVEMENTS

- Article entitled ***Establishing green supplier appraisalment platform using grey concepts (authored by NK Sahu, S Datta and SS Mahapatra)*** published in ***Grey Systems: Theory and Application***, Volume 2, Issue 3, 2012, pp. 395-418, Emerald Group Publishing Limited, UK, has been selected as a **Highly Commended Award Winner** at the **Literati Network Awards for Excellence 2013**, Emerald Literati Network, UK.
- Article entitled ***Robot selection based on grey-MULTIMOORA approach (authored by NK Sahu, S Datta and SS Mahapatra)*** published in ***Grey Systems: Theory and Application***, Volume 3, Number 2, 2013, pp. 201-232, Emerald Group Publishing Limited, UK, has been selected by the journal's Editorial Team for the **2014 Outstanding Paper Award**.
- **World 2 % Scientist in Year 2022 (Career and Yearly List)**, Web link: <https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4>
- **Top 2 % of the most Influential Scientists – 2023 by the Stanford University list.**