Resume

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PERSONAL INFORMATION

DATE OF BIRTH: 30th October 1980

FATHER'S NAME: Sri Sanjiban Datta

SEX: Male

AGE: 40+

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 24th 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	Till Date	Associate 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. **S. Datta**, A. Bandyopadhyay and P. K. Pal, 2008, "*Solving Multi Criteria Optimization Problem in Submerged Arc Welding Consuming a Mixture of Fresh Flux and Fused Slag*", **International Journal of Advanced Manufacturing Technology**, Volume 35, Issue 9-10, pp. 935-942. Springer-Verlag London Limited.

2. **S. Datta**, A. Bandyopadhyay and P. K. Pal, 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*", for **International Journal of Advanced Manufacturing Technology**, Volume 36, Issue 7-8, pp. 689-698, Springer-Verlag London Limited.

3. **S. Datta**, A. Bandyopadhyay and P. K. Pal, 2008, "*Modeling and Optimization of Features of Bead Geometry Including Percentage Dilution in Submerged Arc Welding Consuming Mixture of Fresh Flux and Fused Slag*", **International Journal of Advanced Manufacturing Technology**, Volume 36, Issue 11-12, pp. 1080-1090, Springer-Verlag London Limited.

4. **S. Datta**, A. Bandyopadhyay and P. K. Pal, 2008, "*Slag recycling in Submerged Arc Welding and its influence on weld quality leading to parametric optimization*", **International Journal of Advanced Manufacturing Technology**, Volume 39, Issue 3-4, pp. 229-238, Springer-Verlag London Limited.

5. **S. Datta**, A. Bandyopadhyay and P. K. Pal, 2008, "*Grey Based Taguchi Method for Optimization of Bead Geometry in Submerged Arc Bead-On-Plate Welding* ", **International Journal of Advanced Manufacturing Technology**, Volume 39, Issue 11-12, pp. 1136-1143, Springer-Verlag London Limited.

6. **S. Datta**, G. Nandi, A. Bandyopadhyay and P. K. Pal, November 2009, "*Application of PCA based hybrid Taguchi method for multi-criteria optimization of submerged arc weld: A case study"*, **International Journal of Advanced Manufacturing Technology**, Volume 45, Number 3-4, pp. 276-286. Springer-Verlag London Limited.

7. **S. Datta**, G. Nandi and A. Bandyopadhyay, 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**, Volume 28, Issue 2-3, pp. 55-63, Elsevier Science.

8. B. C. Routara, S. D. Mohanty, **S. Datta**, A. Bandyopadhyay, S. S. Mahapatra, 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*", **International Journal of Advanced Manufacturing Technology**, Volume 51, Issue 1-4, pp. 135-143, Springer-Verlag London Limited.

9. B. C. Routara, S. D. Mohanty, **S. Datta**, A. Bandyopadhyay, S. S. Mahapatra, 2010, "*Optimization in ENC End Milling of UNS C34000 Medium Leaded Brass with Multiple Surface Roughness Characteristics*", **Sadhana-Academy Proceedings in Engineering Science**, Volume 35, Issue 5, pp. 619-629, Springer-India.

10. A. Singh, **S. Datta**, S. S. Mahapatra, T. Singha, Gautam Majumdar, 2013, "*Optimization of Bead Geometry of Submerged Arc Weld using Fuzzy based Desirability Function Approach*", **Journal of Intelligent Manufacturing**, Volume 24, Issue 1, pp. 35-44, Springer-Verlag London Limited.

11. Chitrasen Samantra, **Saurav Datta**, Swagatika Mishra, Siba Sankar Mahapatra, 2013, "*Agility Evaluation for Integrated Supply Chain Using Generalized Trapezoidal Fuzzy Numbers Set*", **International Journal of Advanced Manufacturing Technology**, Volume 68, Issue 5, pp. 1491-1503, Springer-Verlag London Limited.

12. Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 2014, *Risk Assessment in IT Outsourcing using Fuzzy Decision-Making Approach: An Indian Perspective*, **Expert Systems with Applications**, Volume 41, Number 8, pp. 4010-4022, Elsevier Science.

13. Kumar Abhishek, **Saurav Datta**, Siba Sankar Mahapatra, 2015 *Optimization of Thrust, Torque, Entry and Exit Delamination Factor during Drilling of CFRP Composites*, **International Journal of Advanced Manufacturing Technology**, Volume 76, Number 1, pp. 401-416, Springer-Verlag London Limited.

14. Kumar Abhishek, V. Rakesh Kumar, **Saurav Datta**, Siba Sankar Mahapatra, 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, Springer-Verlag London Limited. DOI 10.1007/s10845-015-1050-8

15. MP Sathapathy, SK Sahoo, **S Datta**, 2016, *Acoustic Horn Design and Effects of Process Parameters on Properties of Dissimilar Ultrasonic Welding Aluminium to Brass*, **Materials and Manufacturing Processes**, Volume 31, No. 3, pp. 283-290, Taylor and Francis.

16. Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 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, Taylor and Francis. DOI: 10.1080/17457300.2015.1061561

17. Kumar Abhishek, **Saurav Datta**, Siba Sankar Mahapatra, 2016, *Multi-objective Optimization in Drilling of CFRP (Polyester) Composites: Application of a Fuzzy Embedded Harmony Search (HS) Algorithm*, **Measurement**, Volume 77, pp. 222-239, Elsevier Science.

18. Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 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, Taylor and Francis. DOI: 10.1080/17457300.2016.1178298

19. Dilip Kumar Sen, **Saurav Datta**, Siba Sankar Mahapatra, 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, World Scientific Publishing Co. Pte. Ltd., Singapore.

20. Kumar Abhishek, V. Rakesh Kumar, **Saurav Datta**, Siba Sankar Mahapatra, 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, Springer-Verlag London.

21. Chandramani Upadhyay, **Saurav Datta**, Manoj Masanta, Siba Sankar Mahapatra, 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, Springer-Verlag London Limited.

22. Dilip Kumar Sen, **Saurav Datta**, Siba Sankar Mahapatra, 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, World Scientific Publishing Co. Pte. Ltd., Singapore. DOI: 10.1142/S0219622016500474

23. Rahul, Kumar Abhishek, **Saurav Datta**, Bibhuti Bhusan Biswal, Siba Sankar Mahapatra, 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, Springer-Verlag London Limited. DOI: 10.1007/s40430-016-0659-7

24. Rahul, **Saurav Datta**, Bibhuti Bhusan Biswal, Siba Sankar Mahapatra, 2017, *A Novel Satisfaction Function and Distance Based Approach for Machining Performance Optimization during Electro-Discharge Machining on Super Alloy Inconel 718*, **The Arabian Journal for Science and Engineering**, 42: 1999-2020, Springer-Verlag London Limited.

25. Rahul, **Saurav Datta**, Bibhuti Bhusan Biswal, Siba Sankar Mahapatra, 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, Elsevier Science.

26. Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 2017, *Fuzzy Based Risk assessment module for metropolitan construction project: An Empirical Study*, **Engineering Applications of Artificial Intelligence**, 65: 449-464, Elsevier Science. DOI: 10.1016/j.engappai.2017.04.019

27. Rahul, **Saurav Datta**, Manoj Masanta, Bibhuti Bhusan Biswal, Siba Sankar Mahapatra, 2018, *Analysis on Surface Characteristics of Electro-Discharge Machined Inconel 718*, **International Journal of Materials and Product Technology**, 56(1/2): 135-168, Inderscience Publishers, Switzerland.

28. Rahul, **Saurav Datta**, Manoj Masanta, 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, Springer.

29. Soni Kumari, **Saurav Datta**, Manoj Masanta, Goutam Nandi, Pradip Kumar Pal, 2018, *Electro-Discharge Machining of Inconel 825 Super Alloy: Effects of Tool Material and Dielectric Flushing*, **Silicon**, 10: 2079-2099, Springer. https://doi.org/10.1007/s12633-017-9728-5

30. Rahul, Dileep Kumar Mishra, **Saurav Datta**, Manoj Masanta, 2018, *Effects of Tool Electrode on EDM Performance of Ti-6Al-4V*, **Silicon**, 10: 2263-2277, Springer. https://doi.org/10.1007/s12633-018-9760-0

31. Santosh Kumar Sahu, Thrinadh Jadam, **Saurav Datta**, Goutam Nandi, *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 (2018) Springer. **(Published Online)** DOI: 10.1007/s40430-018-1257-7

32. Dileep Kumar Mishra, Rahul, **Saurav Datta**, Manoj Masanta, Siba Sankar Mahapatra (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**, Vol. 233(2) 348–370, SAGE Publications. DOI: 10.1177/0954408918784701

33. Santosh Kumar Sahu, **Saurav Datta** (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**, Vol. 233(2) 384–402, SAGE Publications. DOI: 10.1177/0954408918787104

34. Nimai Haldar, **Saurav Datta**, Rajneesh Kumar, *Experimental Studies on Friction Stir Welding of AA6061 using Inconel 601 Tool*, **Journal of Brazilian Society of Mechanical Sciences and Engineering**, 40, 448 (2018), Springer. (**Published Online**) DOI: 10.1007/s40430-018-1378-z

35. Manoj Kumar, **Saurav Datta**, Rajneesh Kumar, 2019, *Electro-Discharge Machining Performance of Ti-6Al-4V Alloy: Studies on Parametric Effect and Phenomenon of Electrode Wear*, **The Arabian Journal for Science and Engineering**, 44(2): 1553-1568, Springer. DOI: 10.1007/s13369-018-3632-1

36. Rahul, **Saurav Datta**, Bibhuti Bhusan Biswal, Siba Sankar Mahapatra, 2019, *Machinability Analysis of Inconel 601, 625, 718 and 825 in Electro Discharge Machining: On Evaluation of Optimal Parameters Setting*, **Measurement**, 137: 382-400, Elsevier Science. DOI: https://doi.org/10.1016/j.measurement.2019.01.065

37. Merugu Rakesh, **Saurav Datta**, 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, Springer. DOI: 10.1007/s13369-019-03785-y

38. Thrinadh Jadam, **Saurav Datta**, Manoj Masanta, *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 (2019) Springer. **(Published Online)** DOI: 10.1007/s40430-019-1656-4

39. Rahul, **Saurav Datta**, Bibhuti Bhusan Biswal, 2019, *Experimental Studies on Electro-Discharge Machining of Inconel 825 Super Alloy using Cryogenically Treated Tool/Workpiece*, **Measurement**, 145: 611-630, Elsevier Science.

40. Thrinadh Jadam, Santosh Kumar Sahu, **Saurav Datta**, Manoj Masanta, *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 (2019) Springer. (**Published Online**) DOI: 10.1007/s40430-019-1813-9

41. Debashish Sahu, Santosh Kumar Sahu, Thrinadh Jadam, **Saurav Datta**, 2019, *Parametric Effects on EDM Performance of Nimonic 80A*, **Arabian Journal for Science and Engineering**, 44(12):10155–10167, Springer. https://doi.org/10.1007/s13369-019-04112-1

42. Merugu Rakesh, **Saurav Datta**, (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, Springer.

43. Thrinadh Jadam, Rahul, **Saurav Datta**, Siba Sankar Mahapatra, *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**, (2019) Springer. **(Published Online)** DOI: 10.1007/s40010-019-00642-3

44. Thrinadh Jadam, Merugu Rakesh, **Saurav Datta** (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, Springer. DOI: 10.1007/s13369-020-04516-4

45. Surjeet Singh Bedi, Gobinda Chandra Behera, **Saurav Datta**, *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**, (2020) Springer. **(Published Online)** DOI: 10.1007/s13369-020-04554-y

46. Thrinadh Jadam, Santosh Kumar Sahu, **Saurav Datta**, Manoj Masanta, *Powder Mixed Electro-Discharge Machining Performance of Inconel 718: Effect of Concentration of Multi-Walled Carbon Nanotube Added to the Dielectric Media*, **Sãdhanã-Academy Proceedings in Engineering Sciences**, 45, 135 (2020) Springer. **(Published Online)** DOI: 10.1007/s12046-020-01378-2

47. Thrinadh Jadam, **Saurav Datta**, Manoj Masanta, *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**, Taylor and Francis Group. (**Accepted**)

48. Thrinadh Jadam, **Saurav Datta**, Manoj Masanta, *Influence of cutting tool material on machinability of Inconel 718 superalloy*, **Machining Science and Technology**, **an International Journal**, Taylor and Francis Group. (**Accepted**)

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

1. **S. Datta**, M. Sundar, A. Bandyopadhyay, G. Nandi, P.K. Pal, S.C. Roy, 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) (2006): 149-191. DOI: 10.1515/JMBM.2006.17.3.149

2. **S. Datta**, M. Sundar, A. Bandyopadhyay, G. Nandi, P.K. Pal, S.C. Roy, *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) (2007): 339-360. DOI: 10.1504/IJMMP.2007.015313

3. A. Mazumdar, **S. Datta**, S. S. Mahapatra, 2010, "*Application of Multi-Criteria Decision Making models for the evaluation and appraisal of teachers' performance*", **International Journal of Productivity and Quality Management**, Volume 6, Number 2, pp. 213-230, Inderscience Publishers, Switzerland.

4. **S. Datta**, S. S. Mahapatra, 2010, "*Multi-Objective Optimization of Submerged Arc welding*", **The Journal of Engineering Research (TJER)**, Volume 7, Number 1, pp. 42-52.

5. **Saurav Datta**, Siba Sankar Mahapatra (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, World Scientific. DOI: 10.1142/S0219686710001843

6. Anoop Kumar Sood, Vedansh Chaturvedi, **Saurav Datta**, Siba Sankar Mahapatra (2011) *Optimization of Process Parameters in Fused Deposition Modeling using Weighted Principal Component Analysis*, **Journal of Advanced Manufacturing Systems**, 10(2): 241-259, World Scientific. DOI: 10.1142/S0219686711002181

7. P. R. Dhal, **S. Datta** and S. S. Mahapatra, 2011, "*Flexible Manufacturing System Selection based on Grey Relation under Uncertainty*", **International Journal of Services and Operations Management (IJSOM)**, Volume 8, Issue 4, pp. 516-534, Inderscience Publishers, Switzerland.

8. Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 2011 *"Selection of Industrial Robot using Interval-Valued Trapezoidal Fuzzy Numbers Set Combined with VIKOR Method",* **International Journal of Technology Intelligence and Planning**, Vol. 7, No. 4, pp. 344-360, Inderscience Publishers, Switzerland.

9. S. Mishra, **S. Datta**, S. S. Mahapatra, 2012, "*Interrelationship of Drivers for Agile Manufacturing: An Indian Experience*", **International Journal of Services and Operations Management (IJSOM)**, Vol. 11, No. 1, pp. 35-48, Inderscience Publishers, Switzerland.

10. Swagatika Mishra, Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 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 (IJSOM)**, Volume 12, Number 1, pp. 67-89, Inderscience Publishers, Switzerland.

11. **Saurav Datta**, Chitrasen Samantra, Siba Sankar Mahapatra, Sabyasachi Banerjee, Asish Bandyopadhyay, 2012, "*Green Supplier Evaluation and Selection Using VIKOR Method Embedded in Fuzzy Expert System with Interval-Valued Fuzzy Numbers*", **International Journal of Procurement Management (IJPM)**, Volume 5, Number 5, pp. 647-678, Inderscience Publishers, Switzerland.

12. **Saurav Datta**, Chitrasen Samantra, Siba Sankar Mahapatra, Goutam Mondal, Partha Sarathi Chakraborty, Gautam Majumdar, 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, Inderscience Publishers, Switzerland.

13. Chitrasen Samantra, Nitin Kumar Sahu, **Saurav Datta**, Siba Sankar Mahapatra, 2013, "*Decision-Making in Selecting Reverse Logistics Alternative using Interval-Valued Fuzzy Sets Combined with VIKOR Approach*", **International Journal of Services and Operations Management (IJSOM)**, Volume 14, No. 2, pp. 175-196, Inderscience Publishers, Switzerland.

14. Swagatika Mishra, **Saurav Datta**, Siba Sankar Mahapatra, 2013, "*Implementing Agility Appraisement Module in Fuzzy Context: An Indian Perspective*", **International Journal of Logistic Systems and Management**, Volume 14, Number 3, pp. 353-386, Inderscience Publishers, Switzerland.

15. Nitin Kumar Sahu, **Saurav Datta**, Siba Sankar Mahapatra, 2013, "*Decision Making for Selecting 3PL Service Provider using Three Parameter Interval Grey Numbers*", **International Journal of Logistic Systems and Management**, Volume 14, Number 3, pp. 261-297, Inderscience Publishers, Switzerland.

16. Ankita Singh, **Saurav Datta**, Siba Sankar Mahapatra, 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 (IJISE)**, Volume 14, Number 2, pp. 175-206, Inderscience Publishers, Switzerland.

17. S. Mishra, **S. Datta**, S.S. Mahapatra, 2013, "*Grey-based and Fuzzy TOPSIS decision-making approach for agility evaluation of mass customization systems*", **Benchmarking: An International Journal**, Volume 20, Number 4, pp. 440-462, Emerald Group Publishing Limited, UK.

18. **Saurav Datta**, Chitrasen Samantra, Siba Sankar Mahapatra, Goutam Mondal, Gautam Majumdar, 2013, "*Appraisal and Selection of Third Party Logistics Service Providers in Fuzzy Environment*", **Benchmarking, an International Journal**, Volume 20, Number 4, pp. 537-548, Emerald Group Publishing Limited, UK.

19. Chhabi Ram Matwale**, Saurav Datta**, Siba Sankar Mahapatra, 2014, "*Leanness Estimation Procedural Hierarchy using Interval-Valued Fuzzy Sets (IVFS)*", **Benchmarking**, **An International Journal**, Volume 21, Number 2, pp. 150-183, Emerald Group Publishing Limited, UK.

20. Kumar Abhishek, **Saurav Datta**, Siba Sankar Mahapatra, Goutam Mandal, Gautam Majumdar, 2013, "*Taguchi Approach Followed by Fuzzy Linguistic Reasoning for Quality-Productivity Optimization in Machining Operation: A Case Study*", **Journal of Manufacturing Technology and Management**, Volume 24, Number 6, pp. 929-951, Emerald Group Publishing Limited, UK.

21. Swagatika Mishra, Siba Sankar Mahapatra, **Saurav Datta**, 2014, "*Agility Evaluation in Fuzzy Context: Influence of Decision-Makers Risk Bearing Attitude*", **Benchmarking**, **An International Journal**, Volume 21, Issue 6, pp. 1084-1119, Emerald Group Publishing Limited, UK.

22. Nitin Sahu, **Saurav Datta**, Siba Sankar Mahapatra, 2014, "*Green Supplier Appraisement in Fuzzy Environment*", Volume 21, Number 3, pp. 412-429, **Benchmarking, An International Journal**, Emerald Group Publishing Limited, UK.

23. Swagatika Mishra, Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 2013, "*Supplier Evaluation in Agile Supply Chain in Fuzzy paradigm*", **International Journal of Services and Operations Management (IJSOM)**, Volume 16, Number 1, pp. 1-41, Inderscience Publishers, Switzerland.

24. Chhabi Ram Matwale**, Saurav Datta**, Siba Sankar Mahapatra, 2013, "*Agility Appraisement and Identification of Agile Barriers in a Supply Chain*, **International Journal of Services and Operations Management (IJSOM)**, Volume 16, Number 4, pp. 478-505, Inderscience Publishers, Switzerland.

25. Swagatika Mishra, **Saurav Datta**, Siba Sankar Mahapatra, Bikash Ranjan Debata, 2014, "*Alignment of Dimensions towards Modeling Organizational Supply Chain Agility"*, **International Journal of Services and Operations Management (IJSOM)**, Volume 17, Number 1, pp. 88-106, Inderscience Publishers, Switzerland.

26. **S. Datta**, R. K. Sahu, S.S. Mahapatra, A. Biswas, G. Majumdar, 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**, Volume 13, Number 4, pp. 430-449, Inderscience Publishers, Switzerland.

27. Swagatika Mishra, Chitrasen Samantra, **Saurav Datta**, Siba Sankar Mahapatra, 2014, "*Agility Appraisement Framework for Integrated Supply Chain Using Generalized Interval-Valued Fuzzy Set*", **International Journal of Business Information Systems** (IJBIS), Volume 16, Number 1, pp. 89-118, Inderscience Publishers, Switzerland.

28. Anoop Kumar Sahu**, Saurav Datta**, Siba Sankar Mahapatra, 2014, "*Use of IVFNs and MULTIMOORA Method for supply chain performance measurement, benchmarking and decision-making: an empirical study*", **International Journal of Business Excellence**, Volume 7, Number 2, pp. 237-280, Inderscience Publishers, Switzerland.

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30. Chhabi Ram Matwale, **Saurav Datta**, Siba Sankar Mahapatra, 2015, "*Leanness Metric Evaluation Platform in Fuzzy Context*", **Journal of Modelling in Management**, 10(2): 238-267, Emerald Group Publishing Limited, UK.

31. Chhabi Ram Matawale, **Saurav Datta**, Siba Sankar Mahapatra, 2015, *Evaluation of Leanness, Agility and Leagility for Supply Chain of Automotive Industries*, **International Journal of Agile Systems and Management**, Volume 8, Issue 2, pp. 85-115, Inderscience Publishers, Switzerland.

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3. The 2013 Asia-Pacific International Congress on Engineering and Natural Sciences (APICENS 2013) held in **Bangkok**, **Thailand**, during 16-18 April 2013.

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 Resourse 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***

DETAILS OF RESEARCH GUIDANCE

M. Tech. *(By Research)* guidance [S. Datta as Sole/ Principal supervisor]			
Sl. No.	Name of the student(s)	Title of the thesis	Status
01	***Ankita Singh*** **M. Tech. *(By Research)*** (Production) Date of Enrolment: 20.07.2010	*Studies on Some Aspects of Composite Machining*	**Defense was on 07.01.2013** **Degree Awarded on 19.01.2013**
02	***Santosh Kumar Sahu*** **M. Tech. *(By Research)*** (Production) Date of Enrolment: 06.08.2012 **(Co-Supervisor: Prof. SK Patel, ME)**	*Development of Decision Support Systems towards Supply Chain Performance Appraisement*	**Defense was on 24.11.2014** **Degree Awarded on 17.01.2015**

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)**	*Studies on Some Aspects of Agility Appraisement: Empirical Research and Case Studies In Indian Perspective*	**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	*Evaluation of Leanness, Agility and Leagility in Industrial Supply Chain*	**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	*Studies on Risk and Occupational Safety in Industrial Context: Some Case Research*	**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	*Experimental Investigations on Machining of CFRP Composites: Study of Parametric Influence and Machining Performance Optimization*	**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	*Supply Chain Performance Appraisement and Benchmarking for Manufacturing Industries: Emphasis on Traditional, Green, Flexible and Resilient Supply Chain along with supplier selection*	**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)**	*Analysis of Decision Support Systems of Industrial Relevance: Application Potential of Fuzzy and Grey Set Theories*	**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)** Director, National Institute of Technology Meghalaya, Shillong-793003	*Experimental Studies on Machinability of Inconel Super Alloy during Electro-Discharge Machining: Analysis of Surface Integrity and Metallurgical Characteristics of the EDMed Work Surface*	**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)**	*Experimental Studies on Machinability Assessment of Superalloys (Inconel 718 and Ti-6Al-4V) during Traditional and Non-Traditional Machining*	**(Thesis to be submitted soon)**
9. Kshitij Pandey Date of enrolment: 24.07.2018 Registration Seminar delivered on 03.07.2019	*Machinability of Difficult-to-Cut Inconel 825 Superalloy under Nanofluid Minimum Quantity Lubrication with Application of Different Cutting Inserts (Carbide/ Cermet/ Mixed Ceramic)*	**Ongoing**
10. Sarthak Prasad Sahoo Date of enrolment: 24.07.2018 Registration Seminar delivered on 27.06.2018	*Effects of Tool Material, Coating, and Lubrication Condition on Machinability of Ti-6Al-4V*	**Ongoing**

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**	*Ultrasonic Spot Welding of Dissimilar Metal Sheets: An Experimental, Numerical and Metallurgical Investigation*	**Defense Seminar Delivered** **[Awarded on 19.01.2018]**

ACADEMIC OUTREACH (Since 2018)

- 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 (IITRAM), 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-Cr_3C_2 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/Al_2O_3 Hybrid Metal Matrix Composites***, submitted by **Mr. Pugalenthi 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**.

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 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]***

ACHIEVEMENTS

- ➢ Article entitled ***Establishing green supplier appraisement 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**.