## **International Journal**

- **1. Mondal, S.C.**, Maiti, J. and Ray, P. K. (2010) 'Development of a measurement metric for manufacturing process robustness', International Journal of Productivity and Quality Management, Vol. 6, No. 2, pp. 156-181.
- **2. Mondal, S. C.**, Maiti, J. and Ray, P. K. (2013) 'Modelling Robustness in Serial Multistage Manufacturing Processes', International Journal of Production Research, Taylor & Francis, Vol. 51, No. 21, pp. 6359-6377.
- **3. Mondal, S. C.**, Ray, P. K and Maiti, J.(2013) 'Modelling Robustness for Manufacturing Processes: A Critical Review', International Journal of Production Research, Taylor & Francis, Vol. 52, No. 2, pp. 521-538.
- **4.** Das, A., **Mondal, S. C.**, Thakkar, J.J. and Maiti, J. (2014) 'A Methodology for Modelling and Monitoring of Centrifugal Casting Process', International Journal of Quality and Reliability Management, Vol. 32, No. 7, pp. 718-735.
- **5. Mondal, S.C.**; Maiti, J., Ray, P.K. and Shafiee, M. (2016) "Modelling process robustness: a case study of centrifugal casting ", International Journal of Production Planning & Control, Taylor & Francis, Vol. 27, No. 3, pp. 169-182.
- **6. Mondal, S. C**. (2015) 'Process Capability A Surrogate Measure of Process Robustness: A Case Study', International Journal of Quality and Reliability Management, Vol. 33, No. 1, pp 90-106.
- **7. Mondal, S. C.** and Kumar, J. (2016) 'Application of Box-Behnken Design for the Optimization of Process Parameters in Dry Drilling Operation', International Journal of Productivity and Quality Management, vol. 18, No. 4, pp. 456-473.
- **8.** Mandal, Prosun and **Mondal, Subhas Chandra** (2017) 'An Application of Artificial Neural Network and Particle Swarm Optimization Technique for Modeling and Optimization of Centerless Grinding Process', International Journal of Productivity and Quality Management, vol. 20, No. 3, pp. 344-362.
- **9.** Saha, A. and **Mondal, S. C.** (2017) 'Experimental Investigation and Modelling of WEDM Process for Machining Nano-structured Hardfacing Material', International Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol. 39, No. 9, pp. 3439-3455, Springer publication.
- **10.**Saha, A. and **Mondal, S. C.** (2016) 'Multi-objective Optimization in WEDM process of Nanostructured Hardfacing Materials through Hybrid techniques', International Journal of Measurement, Vol. 94, pp. 46-59, Elsevier publication.
- **11.**Saha, A. and **Mondal, S. C.** (2016) 'Multi-objective Optimization of Welding Parameters in MMAW for Nano-structured Hardfacing Material using GRA

- coupled with PCA', Transactions of the Indian Institute of Metals, DOI: 10.1007/s12666-016-0945-1, Springer publication.
- **12.**Saha, A. and **Mondal, S. C.** (2017) 'Optimization of Wire electric discharge machining process: A review and reflection', International Journal of Productivity and Quality Management, Vol. 22 (3), pp. 340-362.
- **13.**Saha, A. and **Mondal, S. C**. (2016) 'Parametric Optimization of MMAW Process for Nano Hardfacing Material Using Hybrid Approach', International Journal of Mechanical and Production Engineering (IJMPE), Vol. 4, Issue. 11, pp. 28-31.
- **14.**Saha, A. and **Mondal, S. C.** (2017) 'Multi-objective optimization of manual metal arc welding process parameters for nano-structured hardfacing material using hybrid approach', International Journal of Measurement, Vol. 102, pp. 80-89, Elsevier publication.
- **15.** Gourhari Ghosh, Mandal, Prosun and **Mondal, Subhas Chandra** (2017) 'Modelling and Optimization of Surface Roughness in Keyway Milling using ANN, Genetic Algorithm and Particle Swarm Optimization', The International Journal of Advanced Manufacturing Technology, DOI: 10.1007/s00170-017-1417-4., pp 1-20, Springer publication.
- **16.** Ghadai, R. K., Das, S., Kumar, D., **Mondal, S. C.** and Swain, B.P. (2017) 'Correlation between structural and mechanical properties of silicon doped DLC thin films', Diamond and Related Materials, (Impact factor 2.68) Vol 82, pp. 25-32, Elsevier Publication.
- **17.** Mandal, Prosun and **Mondal, Subhas Chandra** (2018) 'Investigation of Electro-Thermal property for Cu-MWCNT composite coating on anodized 6061 aluminium alloy', International Journal of Applied Surface Science, Vol 454, pp. 138-147, Elsevier Publication.
- **18.** Mandal, Prosun and **Mondal, Subhas Chandra** (2018) 'Investigation of Electrothermal property of Cu-MWCNT coated 316L stainless steel', International Journal of Surface Engineering, Vol 34 (9), pp. 697-704, Taylor & Francis Publication.
- **19.** Ranjan Kr Ghadai, **Subhas Ch Mondal**, Bibhu P Swain, K Kalita (2018)"PECVD Process Parameter Optimization: Towards increased Hardness of Diamond-like Carbon Thin Films" Materials and Manufacturing Process, https://doi.org/10.1080/10426914.2018.1512114, Taylor and Francis.
- 20. R.K. Ghadai\*, P.P. Das, I.Shivakoti, S. C. Mondal, B. P. Swain (2017) "Grey fuzzy logic approach for the optimization of DLC thin film coating process

- parameters using PACVD technique" IOP Conference Series: Materials Science and Engineering, 2017 (2017) 012034. Scopus.
- **21.** Saha, A. and **Mondal, S. C.** (2018) 'Statistical analysis and optimization of process parameters in wire cut machining of welded nanostructured hardfacing material', Silicon DOI: 10.1007/s12633-018-9924-y, Springer Publication (SCI).
- **22.** Saha, A. and **Mondal, S. C.** (2018) "Modeling bead width and bead hardness in submerged arc welding using dimensional analysis" International Journal of Manufacturing Technology and Management, Inderscience publication. SCI, accepted for publication.
- 23. Saha, A. and Mondal, S. C. (2018) 'Multi criteria selection of optimal welding parameter in MMAW hardfacing using MOORA method coupled with PCA', International Journal of Materials and Product Technology, Inderscience publication, Scopus, Vol. 57(1-3), pages 240-255.

# **International Conference**

- Mondal, S.C.; Maiti, J. and Ray, P.K. (2010) "Process Capability Analysis of a Centrifugal Casting Process", Proceedings of the 2010 International Conference on Industrial Engineering and Operations Management (IEOM 2010), pp. ID: 276, Dhaka, Bangladesh, January 9-10, 2010.
- 2. Roy Choudhury, S. and **Mondal S. C**. (2012) 'A Comparison of Performance in die casting and drop forging processes', 4th International and 25th All India Manufacturing Design and Research Conference (AIMTDR 2012), pp. ID:MP-102, December 14-16, Jadavpur University, Kolkata-32, India.
- **3. Mondal S. C**. (2013) 'A Study on Process Capability Indices in Forging and Hardening and Tempering Processes', 3rd International Conference on Production and Industrial Engineering (CPIE2013), pp. ID:0505, March 29-31, Dr B. R. Ambedkar National Institute of Technology Jalandhar, Punjab,India.
- **4. Mondal, S. C.** (2013) "Process Capability A Surrogate Measure of Process Robustness: A Case Study", Proceedings of the ASME 2013 International Design Engineering Technical Conferences under 18th Design for Manufacturing and the Life Cycle conference, August 4-7, 2013, Portland, Oregon, USA.
- **5. Mondal, S. C.**,Kamath, R. K., Jana, R and Manna, S.(2013) 'Optimization of Process Parameters in Centerless Grinding Operation using Response Surface Methodology ',International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8:), December 13-15, 2013, NIT Calicut, Kerala, India.

- **6.** Saha, A. and **Mondal, S. C.** (2014) 'Optimization of process parameters in submerged arc Welding using multi-objectives Taguchi method' Proceedings in the 5th International and 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014), Department of Mechanical Engineering, IIT Guwahati, India, December 12-14, 2014
- 7. Mondal, S. C. and Kundu, S. 'Application of Process Capability Indices to Measure Performance of a Multistage Manufacturing Process', Proceedings in the 5th International and 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014), Department of Mechanical Engineering, IIT Guwahati, India, December 12-14, 2014.
- 8. Ghadai, R. K., Behera, R. R. and **Mondal, S. C.** (2014) 'Modeling Electrical Discharge Machining Process using Artificial Neural Network for the Machining of Special Steel WP7V', Proceedings in the 5th International and 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014), Department of Mechanical Engineering, IIT Guwahati, India, December 12-14, 2014.
- 9. Mondal, S. C. and Mandal, P. (2014) 'Application of Artificial Neural Network for Modelling Surface Roughness in Centerless Grinding Operation', Proceedings in the 5th International and 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014), Department of Mechanical Engineering, IIT Guwahati, India, December 12-14, 2014.
- 10. Saha, A. and Mondal, S. C. (2014) 'Application of Grey Relational Analysis for the Optimization of Multi-performance Characteristics in Submerged Arc Welding' Proceedings in the International Conference on Advanced Materials and Energy Technology (ICAMET 2014), Indian Institute of Engineering Science and Technology, Shibpur, Howrah, India, December 17-19, 2014.
- **11. Mondal, S. C.** and Mandal, P. (2015) 'An Application of Particle Swarm Optimization Technique for Optimization of Surface Roughness in Centerless Grinding Operation', International Conference on Research into Design, Indian Institute of Science, Bangalore, 7-9 January, 2015.
- **12. Mondal, S. C.** and Salim, M. (2015) 'Multivariate Process Control Charts: An Overview and Application', 57<sup>th</sup> National convention of Indian Institution of Industrial Engineering and 3<sup>rd</sup> International Conference on Industrial Engineering (ICIE-2015), Sardar Vallabhbhai National Institute of Technology, Surat, 26-28 November, 2015.
- **13. Mondal, S. C.** (2015) " A Study of Multivariate Process Capability Indices in Manufacturing Processes", Proceedings of the 2015 IEEE International Conference on Industrial Engineering and Engineering management, December 6-9, 2015, Suntec Singapore Convention Centre, Singapore.

- **14.** Saha, A. **and Mondal, S. C**.(2015) 'Optimization of Multi-performance Characteristics (weld bead width and bead hardness) in Submerged Arc Welding', International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-9:), December 10-12, 2015, IIT Bombay, Maharashtra, India.
- **15.** Mandal, P. and Mondal, S. C. (2015) 'Optimization of Surface Roughness in CNC Turing operation using Particle Swarm Optimization Technique', International Conference on Precision, Meso, Micro and Nano Engineering (COPEN- 9), December 10-12, 2015, IIT Bombay, Maharashtra, India.
- **16.** Saha, A. **and Mondal, S. C**.(2016) 'Parametric Optimization of MMAW Process for Nano-hardfacing material using Hybrid approach' ISER 57<sup>th</sup> International Conference on Nano-Science, Nanotechnology and advanced materials' September 07-08, 2016, Chennai, India.
- 17. Ghosh, S., Mandal, P. and Mondal, S. C. (2017) 'Application of Simulated Annealing for the Optimization of Process Parameters in WEDM Process for Machining 201LN Stainless steel', IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS- 2017), February 03-05, 2017, MNNIT Allahabad, UP, India.
- **18.**Ghosh Gourhari, Mandal, Prosun and **Mondal, Subhas Chandra** (2016) 'Modeling and Optimization of Surface roughness in Keyway using ANN and Genetic algorithm', Proceedings in the 6th International and 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2016), Department of Mechanical Engineering, College of Engineering, Pune, India, December 16-18, 2016.
- **19.**Saha, A. and **Mondal, S. C.** (2017). 'Machining Optimization of Nano-Structured Hardfaced Tool Insert in WEDM Using MOORA Method', International Conference on Research into Design, Indian Institute of Technology, Guwahati, 9-11 January, 2017.
- **20.**Saha, A. and **Mondal, S. C.** (2017) 'Welding Parameters Optimization in MMAW Assisted Nano-Structured Hardfacing Using Desirability Function Analysis Embedded With Taguchi Method', International Conference on Research into Design, Indian Institute of Technology, Guwahati, 9-11 January, 2017.
- **21.Mondal, S. C.,** Ghosh, G. and Mandal, P. (2017) 'Application of Genetic Algorithm for the Optimization of Process Parameters in Keyway Milling', International Conference on Research into Design, Indian Institute of Technology, Guwahati, 9-11 January, 2017.

- **22.**Ghadai, R. K., Das, P. P., Shivakoti, I., **Mondal, S. C.** and Swain, B.P. (2017) 'Grey fuzzy logic approach for the optimization of DLC thin film coating process parameters using PACVD technique', IOP Conference Series in Materials Science and Engineering.
- 23. Khan, S., Kumar, V., Mandal, P. and Mondal, S. C. (2017) 'Experimental Investigation of Combined TIG-MIG Welding for 304 Stainless Steel Plates', International Conference on Mechanical, Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim, India, 08-10 December, 2017.
- **24.**Ghadai, R. K., Kumar, D., **Mondal, S. C.** and Swain, B.P. (2017) 'Raman and Nanoindentation study of Diamond like Carbon thin Films', International Conference on Mechanical, Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim, India, 08-10 December, 2017.
- **25.**Ghadai, R. K., Krishna, H., Kumar, D., **Mondal, S. C.** and Swain, B.P. (2017) 'Mechanical, Optical and Electrical properties of Ag incorporate Diamond like Carbon nanocomposite films for bioimplant applications: A Review', International Conference on Mechanical, Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim, India, 08-10 December, 2017.
- **26. Mondal, S. C.**, Saha, A. and Biswas, P. (2017) 'Optimization of Process Parameters in Centerless Grinding operation using Central Composite Rotatable Design', 4th International Conference on Industrial Engineering (ICIE-2017), Sardar Vallabhbhai National Institute of Technology, Surat, 21-23 December, 2017.
- **27.**Ranjan Kr Ghadai, Soham Das, **Subhas Ch Mondal**, Bibhu P Swain, 2017) "Investigation of Structural and Electronic Environments of Nitrogen-Doped CVD-Grown DLC Films" Lecture Notes in Electrical Engineering book series, 443 (2017) 301-306. Scopus, Springer.
- 28. R.K. Ghadai\*, P.P. Das, I. Shivakoti, S. C. Mondal, B. P. Swain (2017) "Grey fuzzy logic approach for the optimization of DLC thin film coating process parameters using PACVD technique" IOP Conference Series: Materials Science and Engineering, 2017 (2017) 012034. Scopus, IOP.
- **29.** Ranjan Kr Ghadai, **Subhas Ch Mondal**, Bibhu P Swain (2018) "Investigation of Structural and Mechanical Properties of DLC Thin films in Reduction Atmosphere" presented at 2nd International Conference on Geoscience, Energy and Materials (I-GEM), Kuala Lumpur, Malaysia, April 10-12, 2018.
- **30.•** Ranjan Kr Ghadai, **Subhas Ch Mondal**, Bibhu P Swain (2018) "Optimization of PECVD process parameters for the deposition of DLC thin film using TOPSIS", ICNMS 2019, San Francisco, CA, USA, January 4-7 (2019) American Institute of Physics (AIP), Accepted, **Scopus, AIP.**

# **Book Chapter**

- **1. Mondal, S. C.** and Saha, A. (2014) 'Optimization of process parameters in submerged arc Welding using multi-objectives Taguchi method', accepted for a book Chapter in the special issue on Advances in Material Forming and Joining of Springer Publication (2014).
- 2. Mondal, Subhas Chandra and Mandal, Prosun (2015) 'An Application of Particle Swarm Optimization Technique for Optimization of Surface Roughness in Centerless Grinding Operation', Published as a book Chapter in Springer Publication of ISBN: 978-81-322-2228-6, Chapter No. 59, pp. 687-697.
- **3.** Saha, A. and **Mondal, S. C.** (2017). 'Machining Optimization of Nano-Structured Hardfaced Tool Insert in WEDM Using MOORA Method', A. Chakrabarti and D. Chakrabarti (eds.), Research into Design for Communities, Volume 1, Smart Innovation, Systems and Technologies 65, Springer Nature Singapore Pte Ltd. 2017, DOI 10.1007/978-981-10-3518-0\_78.
- 4. Saha, A. and Mondal, S. C. (2017) 'Welding Parameters Optimization in MMAW Assisted Nano-Structured Hardfacing Using Desirability Function Analysis Embedded With Taguchi Method', A. Chakrabarti and D. Chakrabarti (eds.), Research into Design for Communities, Volume 1, Smart Innovation, Systems and Technologies 65, Springer Nature Singapore Pte Ltd. 2017, DOI 10.1007/978-981-10-3518-0\_39.
- **5. Mondal, S. C.,** Ghosh, G. and Mandal, P. (2017) 'Application of Genetic Algorithm for the Optimization of Process Parameters in Keyway Milling', A. Chakrabarti and D. Chakrabarti (eds.), Research into Design for Communities, Volume 1, Smart Innovation, Systems and Technologies 65, Springer Nature Singapore Pte Ltd. 2017, DOI 10.1007/978-981-10-3518-0\_39.
- **6.** Ghadai, R. K., Das, S., **Mondal, S. C.** and Swain, B.P. (2017) 'Investigation of Structural and Electronic Environments of Nitrogen-Doped CVD-Grown DLC Films', Advances in Electronics, Communication and Computing, pp 301-306, published as a book Chapter in Springer Publication .
- **7.** Ranjan Kr Ghadai, Soham Das, **Subhas Ch Mondal**, Bibhu P Swain, 2017)"Investigation of Structural and Electronic Environments of Nitrogen-Doped CVD-Grown DLC Films" Lecture Notes in Electrical Engineering book series, 443 (2017) 301-306.**Scopus, Springer**

## **Member of Academic bodies**

- \*\* Nominated as a member of the Board of Studies (BOS) for the Department of Mechanical Engineering, Aliah University, Kolkata in 2017.
- \*\* Nominated as ASME member.
- \*\*Nominated as an external (expert) member for the Doctoral Committee in the Department of Mechanical Engineering, and Production Engineering, respectively of Jadavpur University, Kolkata.
- \*\* Nominated as an external expert for the evaluation of M.Tech Thesis for the Department of Production Engineering of Jadavpur University, Kolkata.
- \*\* Member of Technical Programme Committee of many International Conferences and reviewer of many repute International Journals.
- \*\* Nominated as an internal (member from other department) member for the Doctoral Committee in the Department of Metallurgical and Mining Engineering, respectively at IIEST, Shibpur, Howrah.
- \*\* Visited National University of Singapore for setting advanced manufacturing lab in the Department of Mechanical Engg., IIESTS
- \*\* Director, IIESTS nominated as one of the members (mechanical) of the committee to conduct audit for existing laboratory equipment and suggest procurement plan to assist Bhagalpur College of Engineering for preparing NBA documents as twinning partner under TEQIP-III of NPIU and World Bank during 1st and 2nd Week of January, 2018.
- \*\* Performed Session Chairs in different Sessions in many repute International Conferences such as IEEE IEEM 2015 Singapore, NIT Surat (2015 and 2017), NIT Jalandhar (2013), AIMTDR 2016 at Pune, ISER 2016 at Chennai and ICoRD 2017 at IIT Guwahati.

### **Invited Talk**

- Dr. Subhas Chandra Mondal delivered an invited talk on "Development of Nanocarb 110 Hardfacing Advanced Materials" on 7th September, 2016 in 34th ISER International Conference on "Nanoscience, Nanotechnology and advanced Materials" organized by ISER during 7-8 September, 2016 at Chennai, India.
- Dr. Subhas Chandra Mondal delivered an invited talk on "Machining Characteristics of Nano-structured Hardfacing Materials" on 30th October, 2016 in two days National Workshop on Machining and Machinability of Advanced Materials (NWMMAW-2016) organized by CSIR-CMERI Durgapur during 29-30 October, 2016.