

## **Mohammad Asjad (PhD, IITD)**

Professor

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Mohammad Asjad is currently a Professor with the Discipline of Mechanical Engineering at Jamia Millia Islamia, New Delhi. He graduated in Mechanical Engineering from Z.H.C.E.T (AMU, Aligarh) and later did his Masters in Industrial and Production Engineering from Z.H.C.E.T (AMU, Aligarh) and securing first position in both of them. Subsequently, he completed his Ph.D. in the area of Reliability Engineering from Indian Institute of Technology Delhi (IITD) under the supervision of Prof. O.P. Gandhi (The Late) and Prof. M. S. Kulkarni. He also receipts the scholarships during Master and Research at A.M.U and IIT Delhi, respectively. His research interests are: Strategic Asset Management, Reliability Engineering, Maintenance Management, Manufacturing Operations Planning, Life Cycle Costing, Optimization and MCDMs using AI. He has published several research articles at various national and international journals and conferences of repute.

### **Computer/Software Proficiency**

- ◆ **Reliability, Maintenance Maintainability and LCC software:** Reliasoft, Relex, GoldSim and Vensim.
- ◆ **Analysis:** MATLAB (Mathematical programming language and optimization)
- ◆ **Simulation:** ARENA, GPSS-PC
- ◆ **Optimization:** Maple (Mathematical calculation, analysis, optimization, simulation)
- ◆ **Statistical Analysis:** MINITAB, SPSS, Statistica, XLSTAT.
- ◆ **Artificial Intelligence:** Fuzzy, Genetic Algorithm, Neuro Intelligent, Alyuda, Easy NN and Tiberuis.

### Courses Teaching/Taught

- ◆ Manufacturing Processes
- ◆ Reliability Engineering
- ◆ Operations Research
- ◆ Optimization Methods
- ◆ Foundry Technology
- ◆ Production Technology
- ◆ Modern Manufacturing Methods
- ◆ Workshop Practices

### Guidance (Research/Dissertation/Project)

#### ◆ Ph.D. (Supervision/Co-Supervision)

S. No.	Name of Scholar	Title/Area of research	Status
1	Dr. Ashutosh Singh	Some Studies on Reconfigurability Issues for Manufacturing Systems	Awarded
2	Dr. Shailendra Kumar	Implementation Issues and Framework Development for Industry 4.0	Awarded
3	Dr. Abdul Gani	Development of a Methodology for Environmental Sustainability Assessment	Awarded
4	Dr. Gajender	Risk Assessment and Effect on Cognitive Ability due to Work related Musculoskeletal Disorder and Work Related Fatigue among the Cab drivers in Delhi and NCR Region	Awarded
5	Dr. Sana Parveen	Reliability Analysis of Solar Photovoltaic (SPV) Power System	Awarded
6	Dr. Rehan Farooque	Performance Analysis of Injection Moulded Materials for Automotive Segments	Awarded
7	Mr. Amit Gautam	Developing a Green Product Index/Rating for Manufactured Products	On-going
8	Mr. Shujaat Hussain	Performance Evaluation of Electric Vehicles	On-going
9	Mr. Suhail Ali Sabri	A Study on Equipment and Machinery Asset Management in Indian Construction Industry	On-going

♦ **M. Tech.**

<b>S. No.</b>	<b>Name of student</b>	<b>Broad Area of Dissertation</b>	<b>Year</b>
1.	Mrs. Chanchal Singh	Humanitarian Logistics	2011
2.	Mr. Mohd Atif Wahid	Study on the effect of FSW process parameters on joint quality of Non-Ferrous Alloys	2013
3.	Mr. Ghulam Anwer	Study the effect of FSW process parameters on joint quality of Non-Ferrous materials	2014
4.	Mr. Shahbaz Khan	Some studies on applications of optimization techniques in strategic asset management	2015
5.	Mr. Azazullah	Performance evaluation of classifier techniques for lift index data analysis	2016
6.	Mr. Aamir Khan	Reliability analysis of a single point cutting tool	2017
7.	Mr. Md Jahangir Quamar	A study of manufacturing systems for their reconfigurability	2018
8.	Mr. Md Shahnawaz Alam	Optimization of machine configuration by using reliability and line balancing in reconfigurable manufacturing system	2018
9.	Mr. Mohd Majid	Performance evaluation of environmental sustainability	2019
10.	Mr. Tauseef Ahmad	Probabilistic analysis of a CNC lathe machine	2019
11.	Mr. Abdul Kadir	To Design a Mechanical Ventilation System with separate supply and exhaust fans to provide balanced airflow which results in enhanced indoor air quality, reclaim heat, optimize the energy and improved building durability	2020
12.	Mr. Arvind Pandey	Digital revolution of education 4.0	2021
13.	Mr. Vijay Yadav	A Study of Battery Thermal Management System For An Electric Vehicle : Functional Cause Analysis	2023
14.	Mr. Niyaz Ahamad	Functional Analysis of Battery Management System for Electric Vehicles Using Fault Tree Analysis	2023
15.	Mr. Manish Kumar	Performance Evaluation of Electric Vehicle Integrated with SI Engine Using Functional Analysis	2024
16.	Mr. Salman Ahmad	Performance Evaluation of Electric Vehicle Integrated with CI Engine Using Functional Analysis	2024
17.	Mr. Mubarak Hussain	Failure and Reliability Analysis of machine tool	Ongoing

◆ **B. Tech./B.E. (Sixteen completed) and One is in progress**

**National Research Collaborators**

- IIM Bodhgaya;
- Delhi Technological University, Delhi;
- Aligarh Muslim University, Aligarh;
- Inter University Accelerator Centre, Delhi;
- National Physical Laboratory, Delhi;
- Department of Science and Industrial Research, Delhi;
- Netaji Subhas University of Technology, Delhi;
- J.C. Bose University of Science and Technology, Faridabad;
- Indian Institute of Technology, Delhi;
- A.D. Patel Institute of Technology, Anand;
- ICFAI Business School, Hyderabad;
- Galgotias University, Greater Noida;
- JIMS Engineering Management Technical Campus, Greater Noida;
- Gujarat Technological University, Ahmadabad;

**International Research Collaborators**

- Asian Institute of Technology, Bangkok, Thailand;
- National University of Singapore, Singapore;
- Sam Ratulangi University, Indonesia;
- University of Tabuk, Saudi Arabia;
- King Khalid University, Saudi Arabia;
- King Saud University, Saudi Arabia;
- University of California.

**Journal Publications**

1. Identification, ranking and prioritization of Key Performance Indicators for evaluating greenness of manufactured products, *Green Technologies and Sustainability*, 3.1 (2025), 100114.
2. A robust decision-making approach for the selection of an optimal renewable energy source in India, *Energy Conversion and Management*, 301 (2024), 117989.

3. Identification and evaluation of challenges in commercial vehicle transport business in India post-implementation of BS-VI emission norms, *Research in Transportation Business & Management*, 54 (2024), 101122.
4. An ANN model for Prediction of Select Performance Measures of Single Machine Job Scheduling System, *Journal of Industrial Integration and Management*, 8.4(2023).
5. A MCDM approach for multi-response optimization of machining parameters in turning of EN8 steel (AISI-1040) for sustainable manufacturing, *International Journal on Interactive Design and Manufacturing*, 17.6(2023), 3159-3176.
6. Micro-Level Circular Economy Performance Measurement for Automobile Maintenance Garages, *Journal of Cleaner Production*, 417 (2023), 138025.
7. Analysis of maintenance outsourcing challenges for belt conveyors in industry 4.0 era, *Journal of Global Operations and Strategic Sourcing*. 16. 3 (2023), 718-744.
8. An ISM and AHP Based Analysis of Barriers to Healthcare 4.0, *Journal of Industrial Integration and Management*, 1-20 (2023).
9. A Comparative Study of Conventional and Different Rough Based MCDM Methods for FMEA of Root Canal Treatment, *Decision Analytics Journal*. 6 (2023), 100170.
10. Analyzing Barriers of Aquaponics Adoption in India in the context of COVID-19 using Fuzzy DEMATEL, *Environmental Science and Pollution Research*. 30.16 (2023): 47800-47821.
11. Analyzing Barriers for implementing new vehicle scrap policy in India, *Transportation Research Part D*, 114 (2023), 103568.
12. CFD simulation and optimization of natural convection in a vertical annulus with nanofluids, *International Journal of Thermal Sciences*, 185 (2023), 108079.
13. Maintenance 4.0: Implementation Challenges and Its Analysis, *International Journal of Quality & Reliability Management*, 40.7 (2023), 1706-1728.
14. Purchase Decision Making of Garage Equipment Using an Integrated Fuzzy AHP and Grey Relation Analysis Method, *Grey Systems: Theory and Application*, 13.2 (2023), 238-260.
15. Risk Evaluation of Electric Vehicle Charging Infrastructure using Fuzzy AHP- A Case Study in India, *Operations Management Research*, 16.1 (2023), 245-258.

16. Risk Factors Assessment of Musculoskeletal Disorders among Professional Vehicle Drivers in India Using an Ordinal Priority Approach. *Mathematics*, 10.23 (2022): 4492.
17. An integrated multi-criteria decision-making approach for estimating the importance of the cognitive function impairment risk factors, *Decision Analytic Journal*. 4 (2022): 100107.
18. Investigating the effect of input variables on the performance of FMS followed by multi-response optimization: A simulation study, *Materials Today Proceeding*. 64 (2022): 1500-1503.
19. Industry 4.0: Impact & suitability in Post COVID-19, *Journal of Industrial Integration and Management*, 2250012 (2022).
20. Optimal location and geometry of sensors and actuators for active vibration control of smart composite beams, *Australian Journal of Mechanical Engineering*, 20.4(2022), 981-999.
21. Development of an Industry 4.0 Transformability Index for Manufacturing Systems, *Industrial Robot*, 49.3 (2022), 512-526.
22. A labeling System & automation comparison index for Industry 4.0 System, *Industrial Robot*, 49.3 (2022), 415-427.
23. Reliability improvement of a multistage reciprocating compressor with redundancies using Markov approach, communicated, *Journal of Industrial Integration and Management*, 7.1 (2022), 1-19.
24. Development of a manufacturing sustainability index for MSMEs using a structural approach, *Journal of Cleaner Production*, 353 (2022), 131687.
25. Numerical investigation and implementation of the Taguchi based Entropy-ROV method for optimization of the operating and geometrical parameters during natural convection of Hybrid Nano-fluid in Annuli, *International Journal of Thermal Sciences*, 172 (2022), 107317.
26. A framework for transforming Indian Sports Goods Manufacturing Industry, *South Asian Journal of Business and Management Cases*, 10.3(2021), 313-326.
27. Development of a framework for operational phase life assessment of machine tools using a structural approach, *International Journal of Product Lifecycle Management*, 13.4(2021), 317-342.

28. Narrowing the barriers to Industry 4.0 practices through PCA-Fuzzy AHP-K means *Journal of Advances in Management Research*, 18. 2(2021), 200-226.
29. Current status, enablers and barriers of implementing cellular manufacturing system in sports industry through ISM, *International Journal of System Assurance Engineering and Management*, 12.3 (2021), 345-360.
30. A current state of art applied to injection molding manufacturing process—A review, *Materials Today: Proceedings*, 43 (2021), 441-446.
31. Identification, ranking and prioritization of vital environmental sustainability indicators in manufacturing sector using pareto analysis cum best-worst method, *International Journal of Sustainable Engineering* (2021): 1-19.
32. Prioritization and Ranking of indicators of sustainable manufacturing in Indian MSMEs using fuzzy AHP approach. *Materials Today: Proceedings*, 46.15 (2021), 6631-6637.
33. Geometric and harmonic means based priority dispatching rules for single machine scheduling problems, *International Journal of Production Management and Engineering*, 9.2(2021), 93-102.
34. An integrated DEMATEL-MMDE-ISM approach for analyzing environmental sustainability indicators in MSMEs, *Environmental Science and Pollution Research* (2021), 1-17.
35. An Improved Modified FMEA Model for Prioritization of Lean Waste Risk, *International Journal of Lean Six Sigma*, 11.2 (2020), 233-253.
36. Multi-Response Optimization of Nano fluid-Based IC Engine Cooling System Using Fuzzy PIV Method, *Processes*, 8.1 (2020), 30.
37. Enhancing the Reconfigurability Issues of Machine Tool for Reconfigurable Manufacturing System (RMS), *Journal of Industrial Integration and Management* 5.03 (2020): 349-463.
38. Industry 4.0: Complex, Disruptive, but Inevitable, *Management and Production Engineering Review*, 11.1 (2020), 43-51.
39. Analyzing the Barriers to Industry 4.0 Through Best-Worst Method, *International Journal of Performability Engineering*, 16.1 (2020), 27-36.

40. Multi-performance optimization of nanofluid cooled hybrid photovoltaic thermal system using fuzzy integrated methodology, *Journal of Cleaner Production*, 256 (2020): 120451.
41. Integrated Taguchi-GRA-PCA for optimising the heat transfer performance of nanofluid in an automotive cooling system, *Grey Systems: Theory and Application*, 11.1(2020) 152-165.
42. A road map for the implementation of integrated JIT-lean practices in Indian manufacturing industries using the best-worst method approach, *Journal of Industrial and Production Engineering*, 37.6 (2020), 275-291.
43. Performance Evaluation of Solar Photovoltaic Electricity Generating Systems: An Indian perspective, *Int. Journal of Sustainable Engineering*, 12.1(2019), 70-75.
44. A Fuzzy-based failure mode and effect analysis (FMEA) of solar photovoltaic (SPV) systems, *International Journal of Reliability and Safety*, 8.2(2019), 129-139.
45. Reliability assessment of solar photovoltaic systems based on fuzzy fault tree analysis, *Life Cycle Reliability and Safety Engineering*, 8.2(2019), 129-139.
46. Multi-response optimization of TiO<sub>2</sub>/EG-water nano-coolant using entropy based preference indexed value (PIV) method, *Materials Research Express*, 6.8(2019), 0850a1.
47. An Approach to Develop Shaper Cum Slotter Mechanism: A Reconfigurable Machine Tool, *South Asian Journal of Business and Management Cases*, 8.2 (2019), 195-206.
48. Prioritization and selection of non-traditional machining processes and their criteria using analytic hierarchy process approach, *International Journal of Process Management and Benchmarking*, 9.4(2019), 522-546.
49. Ranking model of total quality management enablers in healthcare establishments using the Best-Worst Method, *The TQM Journal*, 31. 5(2019), 790-814.
50. A conceptual development of reconfigurable drill machine tool (RDMT), *SN Applied Sciences*, 1.10 (2019), 1-8.
51. On the optimal dynamic design of laminated composite folded plates: A multi-criteria decision analysis, *Multidiscipline Modeling in Materials and Structures*, 16.2 (2019), 322-339.



52. Reconfigurable Machine Tools: a perspective, *Life Cycle Reliability and Safety Engineering*, 8.4 (2019), 365-376.
53. A comparative study of Classifier Techniques for Lift Index Data Analysis, *Benchmarking: An international Journal*, 25.2(2018), 632-641.
54. Selection of optimal machining parameters using integrated MCDM approaches, *International Journal of Advanced Operations Management*, 10.2(2018), 109-129.
55. Analysis of maintenance cost for an asset using the Genetic Algorithm, *Int. J. of System Assurance and Engineering Management*, 8.2 (2017): 445–457.
56. Grey relational analysis coupled with principal component analysis for optimization of the cyclic parameters of a solar-driven organic Rankine cycle. *Grey Systems: Theory and Application*, 7.2 (2017): 218-235.
57. Some investigations on the relationship between ergonomic and TQM, *Int. J. of Industrial and Systems Engineering*, 27.2 (2017): 272-294.
58. Reconfigurable manufacturing systems: The Journey and road ahead, *Int. J. of System Assurance and Engineering Management*, 8.2(2017), 1849-1857.
59. Supportability issues for mechanical systems for their useful life, *Journal of Engineering, Design and Technology*, 14.1 (2016): 33-53.
60. Parametric optimization of organic rankine cycle for power generation from low grade waste heat, *Int. Journal of Sustainable Energy*, 35.16 (2016): 774:792.
61. Some investigations on Low Back Pain Amongst Workers Involved in Lifting Tasks, *International Journal of Procurement Management*, 9.6 (2016): 659–683.
62. Friction Stir welds of Al alloy-Cu: An investigation on effect of plunge depth, *Archive of Mechanical Engineering*, 63.4 (2016): 619-634.
63. A study of operators' computing efficiency with special focus on the readability under different viewing angles of a desktop, *J. of Industrial Engineering International*, 11.1(2015): 131-141.
64. An insight to availability for O&M support of mechanical systems, *Int. J. of Productivity and Quality Management*, 16.4 (2015): 462-472.
65. Optimal support strategy for mechanical systems under contract realm, *Benchmarking: An international Journal*, 22.7 (2015): 1395 - 1416.

66. A conceptual framework for capturing the supportability attributes of a mechanical system, *Int. J. of Service and Operations Management*, 17.1 (2014):107-118.
67. Supportability Perspectives: Current Practices and Potential Area for Future Research, *Int. J. of Industrial and Systems Engineering*, 17.2 (2014): 202-223.
68. Supportability based contract alternatives for operating life of mechanical systems, *Int. J. of Indian Culture and Business Management* 6.1 (2013): 102-114.
69. Opportunistic Actions for Subassemblies of a Reciprocating Compressor: An LCC-based Approach, *Int. J. of Performability Engineering*, 9.3 (2013):273-285.
70. A Life Cycle Cost based O&M support for mechanical systems, *Int. J. of System Assurance and Engineering Management*, 4.2 (2013):159-172.
71. A conceptual framework for analyzing, improving and optimizing supportability of mechanical systems, *Int. J. of Strategic Engineering Asset Management* 1.2 (2012): 135-152.
72. Development of a framework for contractor selection for outsourced maintenance services of belt conveyor installations, **Under Review**, *International Journal of Quality & Reliability Management*
73. Functional Cause Analysis of Battery Thermal Management System of Electric Vehicles, **Communicated**, *International Journal of System Assurance and Engineering Management*.
74. Functional Cause Analysis of Electric Vehicle Battery Management System Using System Structure Approach, **Communicated**, *Life Cycle and Reliability Engineering*.
75. Failure Mode and Effects Analysis of Hydraulic Direct Drive of Belt Conveyor System Using a Hybrid Fuzzy AHP and Fuzzy TOPSIS Method, **Communicated**, *Expert Systems with Applications*.
76. Analysis of Techno-Commercial Challenges for Sports Goods and Equipment Manufacturing Business in the Indian MSME Sector, **Communicated**, *Benchmarking: an International Journal*.
77. Sustainability-based selection of laboratory equipment for science and technology institutions using a hybrid MCDM approach, **Under Review**, *Journal of Industrial Integration and Management*.

78. Fuzzy assessment of integrated FTA-FMEA approach for risk analysis in medical robotic systems, **Under Review**, *Sustainable Operations and Computers*.
79. Decision models for the assessment of tablet computers: A comparative analysis, **Under Review**, *Education and Information Technologies*.
80. Environmental Sustainability 4.0 in manufacturing segments: a bibliometric review for future research directions, **Communicated**, *Environmental Science and Pollution Research*.

#### **Papers published in Lectures Note Series/Book Series**

1. Machine configuration based on machine reliability and production rate criteria through line balancing algorithm in Reconfigurable Manufacturing System (RMS), ICAME-2022: International Conference on Advancement in Manufacturing Engineering – 2022, National Institute of Technology Delhi, New Delhi, India, November 12-13, 2022.
2. Synthesis and Analysis of Vital Social Sustainability Indicators using Pareto analysis, FLAME 2022, 3rd Biennial International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2022), 3rd – 5th August 2022, Organised by Department of Mechanical Engineering, Amity School of Engineering & Technology, Amity University Uttar Pradesh, Noida
3. Measuring the Relative Importance of Reconfigurable Manufacturing System (RMS) Using Best–Worst Method (BWM). *In Advances in Electromechanical Technologies* (2021), 253-275. Springer, Singapore.
4. Effect of Noise-Induced Stress on Bus Drivers of Faridabad (India), *Ergonomics for Improved Productivity* (2021), 135-144, Springer, Singapore.

#### **Papers published in National(s)/International(s)/Conference(s)/Magazine**

1. Implementation and Adoption issues of Hybrid Electric Vehicles in Indian Context, 3rd Conference on Flexible Electronics for Electrical Vehicles (FlexEV-2022) 28th – 29th July 2022. Organized by School of Electrical, Electronics & Communication Engineering Manipal University Jaipur, India.
2. Identification and Analysis of Entrepreneurial Challenges for Solar Panel Cleaning Business in the Indian Context. RAMMTE-2022, 8th-9th July 2022, DTU, Delhi, India.

3. A new controller for Energy Management System of EV. RAMMTE-2022, 8th-9th July 2022, DTU, Delhi, India.
4. Investigating the effect of input variables on the performance of FMS followed by multi-response optimization: A simulation-based study, ITME-2021 (Innovative Technologies in Mechanical Engineering)
5. A review of Socio-economic indicators of sustainable Manufacturing, 12<sup>th</sup> ICMPC NITTTR, 6-9<sup>th</sup> October 2021.
6. Supply Chain Sustainability Risk Management Tools- A Classification Scheme, INCITEST 2021, 10 March 2021 at Unikom campus 17<sup>th</sup> Floor Jl. Dipatiukur No.102-118 Bandung – West Java, Indonesia.
7. Prioritization and Ranking of Indicators of Sustainable Manufacturing in Indian MSMEs using Fuzzy AHP approach, CFTMM-2020, 7<sup>th</sup>- 8<sup>th</sup> April 2021 at Delhi Technical Campus, Noida, India.
8. Evaluation of reliability Indices for SPV system based on topology of PV module, CFTMM-2020, 7<sup>th</sup>- 8<sup>th</sup> April 2021 at Delhi Technical Campus, Noida, India.
9. A current state of Art applied to injection moulding manufacturing processes-A Review, EMSME-2020, 30<sup>th</sup> October 2020 to 1<sup>st</sup> November 2020 at NIT Delhi, India.
10. Industry 4.0: an effective way of manufacturing and services in post-COVID-19, 21<sup>st</sup> International conference on Science, Engineering and Technology (ICSET-2020), 30<sup>th</sup> November 2020 to 1<sup>st</sup> December 2020 at VIT, Vellore, India.
11. Performance Analysis Of Injection Moulding Manufacturing Process By Artificial Intelligence Technique – A Review, National conference on Robotics and Mechatronics (NCORM 2020), 3-4<sup>th</sup> March 2020 at Department of Mechanical engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI), New Delhi
12. Performance Analysis Of Injection Moulding Manufacturing Process – A Review, International Conference on Advances in Chemical and Petrochemical Engineering (ACAPE), February 2020, Department of chemical engineering, Zakir Hussain college of Engg. & Tech., Aligarh Muslim University, Aligarh
13. Reconfigurable Manufacturing System (RMS): Accelerate Towards Industries 4.0. International Conference on Sustainable Computing in Science, Technology and

Management, Amity University Jaipur, India, 26-28 Feb 2019, *Available at SSRN 3354485*.

14. Fault ranking in PV module based on artificial intelligence technique (AIT), International Conference on Power Electronics, Control and Automation (ICPECA), Department of Electrical Engineering, Jamia Millia Islamia, New Delhi. IEEE, 2019.
15. An overview and Impacts of Industry 4.0, Mechanical Innovative & Emerging Trends (ICMIET, 2018), 04 to 05 DEC, 2018, Meerut Institute of Engineering and Technology, Meerut, India
16. Evaluating Criticality of Performance Risk Variables In Disaster Response Supply Chain Using Supply Chain FMEA – A Conceptual Model, 1st Asia Pacific Conference on Research in Industrial and Systems Engineering 2018 (**APCORISE 2018**), 18 April 2018, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia.
17. A review of ergonomic aspects of hearing impairment in humans in different environments, International Conference on Innovative Product Design & Development (ICIPROD-2017), 20 April 2017, Al-Falah University, Dhauj, Faridabad.
18. Lean Waste Classification Model to Support the Sustainable Operational Practices, 1<sup>st</sup> International Conference on Industrial and System Engineering 2017 (IConISE 2017), 29-30 August 2017, Bali, Indonesia.
19. Effect of noise-induced stress on bus drivers of Faridabad (India), Human Work and Work Environment (HWWE-2017), 8 to 10 December 2017, A.M.U, Aligarh.
20. Effect of anthropometry factors on the industrial system design and maintenance – a state of art, Human Work and Work Environment (HWWE-2017), 8 to 10 December 2017, A.M.U, Aligarh.
21. Hybridization of Entropy and Taguchi Loss Function for Accessing Waste Risk in Modified FMEA, IEEE International Conference on Industrial Engineering and Engineering Management (IEEM2017), 10 to 13 December 2017, Singapore.
22. Comparison of Vibrating and Non-vibrating Manufacturing unit worker's using sEMG signals on CTS, National conference on Mechanical Engineering Ideas, Innovations and Initiatives (NCMEI3-2016), at AMU Aligarh, ISBN:978-93-85777-56-1, PP. 27-30.

23. Some studies on recent advancements in welding, National conference on recent advances in Mechanical and Civil Engineering (RAMCE-2014), ISSN: 0975-9514, pp. 51-55.
24. Contract alternatives for maintenance supportability of mechanical systems, International conference on Business Cases-2010, at IME Sahibabad, U.P., India, 2-3 December-2010.
25. Supportability: A way of enhancing the performance, Published in Explorers' Magazine, IIT Delhi, 2009.
26. Prediction of make-span performance of FMS using ANN modeling, International conference on recent development in mechanical engineering, 'ICRDME-2008', 23-25 Jan 2008, Saheed Uddham Singh College of Engineering and Technology, Tangori (Mohali), Punjab, India.
27. Development of e-maintenance: A way of maintenance in present scenario, Institute of Engineers, Delhi State Chapter, 24-25<sup>th</sup> May, 2008.
28. Throughput prediction of seven station unpaced production line using ANN, Recent trend and Innovation in Mechanical Engineering, D C E T Hyderabad, 5-6 March 2007.
29. A comparison between DA and ANN technique for lift index classification, International Ergonomics Conference, Human Work and Work Environment (HWWE-2007), 10-12 December 2007, Central Institute of Agricultural Engineering, Bhopal, India.

**(Mohammad Asjad)**

**Place:** New Delhi

**Dated:** January 10, 2025