

# Muhammad Saad Memon

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## EDUCATION

- Ph.D. Industrial & Management Engineering, Hanyang University, South Korea, 2016
- P.G.D Industrial Engineering & Management, Mehran University, Pakistan, 2012
- B.E Industrial Engineering & Management, Mehran University, Pakistan, 2010

## ACADEMIC APPOINTMENTS

- Dec 2021 ~ **Associate Professor**, Industrial Engineering and Management, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.
- 2016 ~ 2021 **Assistant Professor**, Industrial Engineering and Management, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.
- 2010 - 2016 **Lecturer**, Industrial Engineering and Management, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.

## PROFESSIONAL SERVICES

- 2017 ~ **Member Board of Studies**, Industrial Engineering and Management, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.
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- 2019 ~ **Member Board of Faculty**, Faculty of Mechanical, Process & Earth Engineering, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.
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- 2017 ~ **ISO Quality Coordinator**, Industrial Engineering and Management, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.
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- Founding President**, Industrial Engineering and Operations Management (IEOM) Society of Pakistan.
- Principle Investigator**, Supply Chain and Operations Management Research Group, Pakistan
- Conference Co-secretary**: 1<sup>st</sup> IEMA, 2017, Pakistan.
- Conference Session Chair**: IEOM, 2022, Turkey; IEOM, 2021, Indonesia; NCPT, 2018, Pakistan.
- Peer Reviewer**: *Mathematical Problems in Engineering; Expert Systems with Applications; Sustainability; Applied Sciences; International Journal of Information Technology & Decision Making, and others*
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## Research Projects/Grants

Year	Title	Funding Organization	Funding Amount
2017-2018	Vehicle routing and cross docking in supply chain considering manual material handling	Higher Education Commission of Pakistan	0.5 Million PKR
2017-2018	Development of green garment supply chain	Higher Education Commission of Pakistan	0.5 Million PKR

## PUBLICATIONS

### Refereed Journal Articles

1. Mari, S. I., Lee, Y. H., & **Memon, M. S.** (2014). Sustainable and Resilient Supply Chain Network Design under Disruption Risks. *Sustainability*, 6(10), 6666-6686.
2. Mari, S.I, Lee, Y., **Memon, M.S**, Park, Y., & Kim, M. (2015). Adaptivity of Complex Network Topologies for Designing Resilient Supply Chain Network. *International Journal of Industrial Engineering: Theory, Applications and Practice*, 22(1), 102-116.
3. Mari, S. I., Lee, Y. H., & **Memon, M. S.** (2015). Complex network theory-based approach for designing resilient supply chain networks. *International Journal of Logistics Systems and Management*, 21(3), 365-384.
4. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. (2015). Group multi-criteria supplier selection using combined grey systems theory and uncertainty theory. *Expert Systems with Applications*, 42(21), 7951-7959.
5. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. (2015). Analysis of Traceability Optimization and Shareholder's Profit for Efficient Supply Chain Operation under Product Recall Crisis. *Mathematical Problems in Engineering*, 2015.
6. Habib, M.S., Lee, Y. H., & **Memon, M. S.** (2016). Mathematical Models in Humanitarian Supply Chain Management: A Systematic Literature Review, *Mathematical Problems in Engineering*, vol. 2016, Article ID 3212095, 20 pages, doi:10.1155/2016/3212095.
7. Sardar, S., Lee, Y. H., & **Memon, M. S.** (2016). Sustainable Outsourcing Strategy with Cost, Capacity Flexibility, and Risk in Textile Supply Chain, *Sustainability*, Vol 3, No. 3, Article No. 234.
8. Sardar, S., Lee, Y. H., & **Memon, M. S.** (2016). Multi-Objective Outsourcing Strategies for Functional and Fast Fashion Products in Textile Supply Chain, *International Journal of Engineering and Technology*, Vol 8, No 2, 870-886.
9. Mari, S. I., Lee, Y. H., & **Memon, M. S.** (2016). Sustainable and Resilient Garment Supply Chain Network Design with Fuzzy Multi-Objective under Uncertainty, *Sustainability*, Vol 8, No 10; doi:10.3390/su8101038.
10. M.B. Ramzan, S.M. Qureshi, M. Ullah, **M.S. Memon** and M.A. Siddiqui (2017). Assessment of the Extent of Implementation of Quality Management System (QMS) and Cost of Quality (COQ) Concepts – A Case from a Developing Country, *The Journal of Engineering Research*, Vol. 14, No. 2, 145-155.
11. **Memon, M.S**, Mari, S. I, Shaikh, F., and Shaikh, S. A. (2018). A Grey-Fuzzy Multiobjective Model for Supplier Selection and Production-Distribution Planning Considering Consumer Safety, *Mathematical Problems in Engineering*, vol. 2018, Article ID 5259876, 17 pages, 2018.
12. **Memon, M.S**, Mari, S. I, Shaikh, W.A, (2018). Interpretive Structural Modeling Based Approach for Sustainable Supplier Evaluation and Selection in Textile Supply Chains. *International Journal of Science and Engineering Investigations*, Vol 7, Issue 83, 1-8.
13. Babar Ramzan, M., Mohsin Qureshi, S., Irshad Mari, S., **Saad Memon, M.**, Mittal, M., Imran, M., & Waqas Iqbal, M. (2019). Effect of Time-Varying Factors on Optimal Combination of Quality Inspectors for Offline Inspection Station. *Mathematics*, 7(1), 51.

14. Kokab, Q., Mari, S., Bhatti, S., & **Memon, M. S** (2019). Exploratory and Conformity Factor Analysis of the Green logistics practices in Textile Sector of Pakistan. *Sindh University Research Journal-SURJ (Science Series)*, 51(2), 285-290.
15. Mari, S.I.; **Memon, M.S.**; Ramzan, M.B.; Qureshi, S.M.; Iqbal, M.W (2019). Interactive Fuzzy Multi Criteria Decision Making Approach for Supplier Selection and Order Allocation in a Resilient Supply Chain. *Mathematics*, 7, 137.
16. Aziz Ahmed, Shakeel Shaikh, **Muhammad Saad Memon** (2019). Implementation and Effectiveness of six sigma by using DMAIC approach in Pharmaceutical Industry. *International journal of Modern Research in Engineering and Management*, 6(2), 1-7.
17. Kalwar, M.A, Mari, S.I, **Memon, M.S**, Tanwari, A, Siddiqui, A, A. (2020), Simulation Optimization Based Approach for Improving Outpatient Clinic Operations, *Mehran University Research Journal of Engineering and Technology*, Vol 39, No. 1, 153-170.
18. Panhwer, Pireh and Pitafi, Adnan and **Memon, Muhammad Saad** and Memon, Anum (2020), Awareness and Reason towards Slow Adoption of E-Payment System: Study of Hyderabad, *Annals of Contemporary Developments in Management & HR.*, pp. 6-21, Vol. 2, No. 1. DOI: 10.33166/ACDMHR.2020.01.002.
19. Bai, K., **Memon, M. S.**, & Mari, S. I. (2020). Analyzing the Consumers Buying Behavior towards Green Products. *International Journal of Engineering Works*, 7(03), 161-167.
20. Dahri, T. H., Ali, T. H., & **Memon, M. S** (2020). Compensation practices in construction industry: a human resource management perspective of construction projects in Sindh, Pakistan, *International Research Journal of Modernization in Engineering Technology and Science*, Vol. 02, No. 10, pp. 824-831.
21. Khowaja, Farhan, Tauha Hussain Ali, **Muhammad Saad Memon**, and Shahzaib Jamil (2020). Occupational Stress of Civil Engineers in the Pakistani Construction Industry, *International Research Journal of Modernization in Engineering Technology and Science*, Vol. 2, No. 10, pp. 222-226.
22. Midhat Ali, M., Qureshi, S. M., **Memon, M. S.**, Mari, S. I., & Ramzan, M. B. (2021). Competency Framework Development for Effective Human Resource Management. *SAGE Open*, Vol. 10, No. 2, pp. 1-15.  
<https://doi.org/10.1177/21582440211006124>
23. Kalwar, M. A., **Memon, M. S.**, Khan, M. A., & Tanwari, A. (2021). Statistical analysis of waiting time of patients by queuing techniques: case study of large hospital in Pakistan. *Journal of Applied Research in Technology & Engineering*, 2(2), 101-112.
24. Rano Khan Wassan, Shakeel Ahmed Shaikh, Imran Khan Shaikh, **Muhammad Saad Memon**, Abdul Rahman, Syed Feroz Hussain Shah (2022). Critical Success Factors for Green, Lean and Six Sigma Implementation in Pakistani Small and Medium Enterprises. *Journal of Applied Engineering Science*, **Accepted**

## Book Chapters

1. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. (2015). A Combined Grey System Theory and Uncertainty Theory-Based Approach for Supplier Selection in Supply Chain Management. In *Toward Sustainable Operations of Supply Chain and Logistics Systems* (pp. 461-473). Springer International Publishing.
2. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. (2014). A Model for Optimizing Traceability of Product in a Supply Chain Based on Batch Dispersion. *Logistics Operations, Supply Chain Management and Sustainability* (pp. 101-114). Springer International Publishing.

## Keynote Talks

1. “Supply Chain Disruption, Robustness and Resilience”, 2nd Asia Pacific Conference on Industrial Engineering and Operations Management, Indonesia (Virtual), September 14-16, 2021
2. “Supply Chain Modelling Using Grey and Fuzzy Theory in an Uncertain Environment”, National Conference on Professional Trends in Industrial & Systems Engineering, 24th – 25th April 2018, UET Peshawar, Pakistan

## Conference Proceedings

1. Rasool Bux, **Muhammad Saad Memon**, Sonia Irshad Mari & Masroor Ali. “Identifying and Ranking of Criteria for the Sustainable Location of Waste Transfer Station: A Way Out for Waste to Energy and Three R's Approach”, in 3rd Conference on Sustainability in Civil Engineering, held on August 11, 2021 at Department of Civil Engineering, Capital University of Science and Technology, Islamabad, Pakistan.
2. Khan, Muhammad Ali, **Muhammad Saad Memon**, and Abdul Salam Soomro. "Exploring the applications of lean manufacturing practices in automobile industry." In Proceedings of the 5th NA International Conference on Industrial Engineering and Operations Management Detroit, Michigan, USA, pp. 10-14. 2020.
3. Kalwar, Muhammad Ahmed, Muhammad Ali Khan, Shakil Ahmed Shaikh, Abdul Salam, **Muhammad Saad Memon**, and Sarmad Ali Khaskheli. "Aggressive Driving Behavior: A Case Study of Mehran UET." In Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai, pp. 2350-2359. 2020.
4. Masroor Ali Panhwar, **Muhammad Saad Memon**, Sonia Irshad Mari, “Multi-Objective Modelling Of Biomass Supply Chain In Karachi Cattle Colony Considering Economic, Environmental and Social Aspects”, 2nd International Conference on Sustainable Development in Civil Engineering 5th – 7th, December 2019, Sindh, Pakistan. pp 142.
5. Asif Nawaz, **Muhammad Saad Memon**, Sonia Irshad Mari, Miskeen Ali Gopang, “Impact of Total Quality Management (TQM) Practices on Sustainable Development”, 5th International Conference on Energy, Environment and Sustainable Development 2018 (EESD 2018), Sindh, Pakistan, pp 199-211.
6. “Competency Framework Development with an Engineering Intervention”, In: Marri, H.B. ed., Proceedings of the First International Conference on Industrial Engineering and Management Applications, February 20-22, 2017. Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan: pp 525-530. Available from: [iema.muet.edu.pk](http://iema.muet.edu.pk) [Last access date: 04 March, 2017]
7. “Optimization of Distribution System by using Clustering Technique”, In: Marri, H.B. ed., Proceedings of the First International Conference on Industrial Engineering and Management Applications, February 20-22, 2017. Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan: pp 363-372. Available from: [iema.muet.edu.pk](http://iema.muet.edu.pk) [Last access date: 04 March, 2017]
8. “Development of A Fuzzy Logic-Based Quantitative Risk Assessment Model Subject to HSE Hazards”, In: Marri, H.B. ed., Proceedings of the First International Conference on Industrial Engineering and Management Applications, February 20-22, 2017. Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan: pp 259-264. Available from: [iema.muet.edu.pk](http://iema.muet.edu.pk) [Last access date: 04 March 2017]
9. “Reckoning of criticality for preventive and corrective maintenance of amine solution pumps”, In: Marri, H.B. ed., Proceedings of the First International Conference on Industrial Engineering

- and Management Applications, February 20-22, 2017. Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan: pp 245-249. Available from: [iema.muuet.edu.pk](http://iema.muuet.edu.pk) [Last access date: 04 March, 2017]
10. “Comparing the effects of Day and Night shift on employees job satisfaction A case study at Cement Industry”, In: Marri, H.B. ed., Proceedings of the First International Conference on Industrial Engineering and Management Applications, February 20-22, 2017. Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan: pp 133-141. Available from: [iema.muuet.edu.pk](http://iema.muuet.edu.pk) [Last access date: 04 March, 2017]
  11. “Assessment of the Extent of Implementation of QMS and COQ Concepts – A Case from a Developing Country.” International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016), 6 – 8 December 2016, Muscat, Oman.
  12. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “Building resilient and sustainable supply chain network by a possibilistic fuzzy optimization approach”, published in proceedings of 6th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM 2016), June 27-30, 2016, Seoul, Korea
  13. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “A Combined Grey System Theory and Uncertainty Theory Based Approach for Supplier Selection in Supply Chain Management”, published in proceedings of 10th International Congress on Logistics and SCM Systems (ICLS 2015), July 1-4 2015, Chiang-Mai, Thailand.
  14. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “A Three-level Sustainable and Resilient Supply Chain Network Design under Disruption”, published in proceedings of the 2014 International Symposium on Semiconductor Manufacturing Intelligence (ISMI2014), August 16- 18, 2014, Taipei, Taiwan.
  15. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “A Grey-Goal Programming based approach for Managing Product Safety Risk in Supplier Selection Decision”, published in proceedings of the 2014 International Symposium on Semiconductor Manufacturing Intelligence (ISMI2014), August 16- 18, 2014, Taipei, Taiwan.
  16. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “A Model for Designing Resilient and Sustainable Supply Chain under Disruptions”, published in proceedings of 15th Asia Pacific Industrial Engineering and Management Systems Conference (APIEMS 2014), Oct 12-15, 2014, Jeju, South Korea.
  17. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “An Approach for Avoiding Information Loss in Managing Product Safety Issue Associated with Suppliers”, published in proceedings of 15th Asia Pacific Industrial Engineering and Management Systems Conference (APIEMS 2014), Oct 12-15, 2014, Jeju, South Korea.
  18. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “A model for optimizing traceability of product in a supply chain based on batch dispersion”, published in proceedings of 9th International Congress on Logistics and SCM Systems (ICLS 2014), July 1-4 2014, Poznan, Poland.
  19. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “A Grey System Theory Based Approach for Supplier Evaluation and Selection”, published in online proceedings of 2014 IE/MS spring conference, May 16-17 2014, Busan, South Korea.
  20. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “Traceability Optimization for Firm’s Shareholders Profit”, published in online proceeding of 2013 Korean SCM spring conference, Nov 22 2013, Seoul, South Korea.
  21. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “Adaptivity of Complex Network Topologies for Designing Resilient Supply Chain Network”, published in proceeding of 17th International conference on Industrial Engineering Theory, Applications and Practice, Oct 6-9 2013, Busan, South Korea.

22. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “Traceability Optimization for Product Safety in Supply Chain Management” published in proceedings of 8th International Congress on Logistics and SCM Systems (ICLS 2013), Aug 5-7 2013, Tokyo, Japan.
23. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “Traceability Optimization for Enhancing Product Safety in Supply Chain”, published in online proceeding of 2013 Korean SCM spring conference, June 04 2013, Seoul, South Korea.
24. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “Supply Chain Resilience – A Systematic Literature Review”, published in online proceeding of 2013 IE/MS spring conference, May 24-25 2013, Yeosu-si, Joellanam-do, South Korea.
25. **Memon, M. S.**, Lee, Y. H., & Mari, S. I. “Increasing Product Safety in Supply Chain through Traceability Optimization”, published in online proceeding of 2013 IE/MS spring conference, May 24-25 2013, Yeosu-si, Joellanam-do, South Korea.
26. Mari, S. I., Lee, Y. H., & **Memon, M. S.** “Literature Review on Product Safety in Supply Chain Management”, published in online proceeding of 2012 Korean SCM fall conference, Nov 09 2012, Seoul, South Korea.
27. Mari, S. I., Marri H.B., & **Memon, M. S.** “The Importance of E-Integration in Supply Chain and its Effect on Performance”, published in proceedings of International Conference on Industrial Engineering and Operations Management (IEOM), July 3-6 2012, Istanbul, Turkey.

## TEACHING

<b>Postgraduate level courses</b>	Supply Chain System Design; Engineering Economy; Quality Control and Reliability; Knowledge Management, Simulation Modeling using Arena®
<b>Undergraduate level courses</b>	Supply Chain and Logistics; Quality Control and Reliability; Computer Integrated Manufacturing using Intelitek® CIM system

## RESEARCH STUDENTS

2022	<b>PhD Thesis Title:</b> Fleet Optimization for Shovel-Truck System in Open-pit Mines
2022	<b>PhD Thesis Title:</b> Developing a Decision Model for Sustainability Assessment of Mining Industry in Pakistan
2021	<b>PhD Thesis Title:</b> Triangular Integration of Lean, Green, and Six Sigma Practices in SMEs
2016-Till Date	Supervised several Master’s Students of Industrial Engineering, Operations Management, Construction Management, and Manufacturing Engineering

## AWARDS AND HONORS

2016	Best PhD dissertation award, Graduate School of Hanyang University, South Korea.
2012	PhD scholarship award, Higher Education Commission, Pakistan
2010	Outstanding Graduate Student Award for holding 2 <sup>nd</sup> position in B.E, Mehran University, Pakistan

## PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Pakistan Engineering Council (PEC), Pakistan  
 Industrial Engineering and Operations Management (IEOM) Society.  
 Institute of Industrial and Systems Engineering (IISE), USA.  
 Supply Chain and Operations Management (SCOM) research group

## **REFERENCES**

### **Dr. Maqsood Memon**

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Zayed University, UAE.  
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### **Prof. Biswajit Sarkar**

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### **Dr. Shehryar Mohsin Qureshi**

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