

Dr. Safwan Abdallah Altarazi

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Profile

A dynamic experienced professor, trainer, researcher, and consultant with a strong record of achievements in the fields of quality management and supply chain management. Have more than ten years of experience in academia-industry bridging projects. Rigid problem solving capability across different fields in very systematic manner. Have raised about \$250,000 as research funds during the last ten years (more than \$100,000 as principal researcher). Have participated in two EU-Tempus projects for developing master programs in various engineering fields. Served in various administrative positions including vice-dean of applied technical sciences school-German Jordanian University (GJU), head of industrial engineering department-GJU, head of maintenance engineering and management department-GJU, elected member of mechanical engineering assembly board-Jordanian Engineers Association, chair of scientific committee-Seventh Jordanian International Mechanical Engineering Conference (JIMEC2010), and chair of the first International Conference on Industrial, Systems and Manufacturing Engineering (ISME'14.)

Education

A. Academia

- **Ph.D. Industrial Engineering, 2005**

Major: Manufacturing Systems. Minor: Engineering Systems, Wichita State University, Wichita, KS, USA

- **M. S. Industrial Engineering, 2000**

Major: Design and Manufacturing, University of Jordan, Amman, Jordan

- **B. S. Mechanical Engineering, 1997**

Minor: Thermal Power, Jordan University of Science and Technology, Irbid, Jordan

B. Professional

- **Certified Quality Engineer (CQE), 2004**

Certification conducted by American Society for Quality, USA

Experience

A. Academic

- Associate Professor, March 2014-Present.
Industrial Engineering Department, German-Jordanian University (GJU), Jordan.
- Associate Professor, September 2014-September 2015.
Sabbatical year at Mechanical and Industrial Engineering Department, Applied Science University, Jordan.
- Visiting Professor, January/February 2010.
Mechanical Engineering Department, Linnaeus University, Sweden.
- Assistant Professor, September 2007-February 2014.
Industrial Engineering Department, German-Jordanian University (GJU), Jordan.
- Assistant Professor, October 2005-August 2007.
Mechanical Engineering Department, Philadelphia University (PU), Jordan.
- Graduate Teaching and Research Assistant, August 2001-May 2005.
Industrial and Manufacturing Engineering Department, Wichita State University (WSU), USA.
- Graduate Teaching Assistant, September 1997-January 2000.
Industrial Engineering Department, University of Jordan (UJ), Jordan.

B. Teaching

- Statistical Quality Control
- Applied Engineering Statistics
- Reliability Engineering
- Operations Research I
- Operations Research II
- Operations Management
- Supply Chain Management
- Introduction to Logistics Management
- Engineering Economics
- Project Management
- Materials Science
- Manufacturing Processes
- Engineering Measurements
- Computer Aided Drawing
- Engineering Workshop

C. Research

- Advising more than 25 B.S. graduation projects both in PU and GJU, 2005-2014.
- Chair of the first International Conference on Industrial, Systems and Manufacturing Engineering (ISME'14), November/2014.
- Head of Scientific Committee, Seventh Jordanian International Mechanical Engineering Conference (JIMEC2010), September/2010.
- Participating in master examination committees in Jordan University of Science and Technology-Jordan, Jordan University, and Hashemite University-Jordan.
- Participating in PhD examination committee in University of Technology-Sydney, Australia.
- Refereeing various national and international journals, conferences, and research funds.

D. Administrative

- Vice Dean, School of applied Technical Sciences, March 2016-present.
- Head of Industrial Engineering Department, GJU, Sep. 2015-Sep. 2016.
- Head of Industrial Engineering Department, GJU, 2010-2012.
- Head of Maintenance Engineering and Management Department, GJU, 2009-2011.

- Head of curriculum development committee for Industrial Engineering curricula, GJU, 2010-2011.
- Member of curriculum development committee for Industrial Engineering and Maintenance engineering curricula, GJU, 2007-2008.
- Labs committee director, school of applied technological science, GJU, 2007-2008.
- Department officer for quality assurance (QA) implementation, mechanical engineering department, PU, 2006-2007.

E. Union, non-academic, and voluntary

- Member of management board, engineering training center, June 2015-present.
- Elected member of mechanical engineering assembly-Jordanian Engineers Association, 2012-2015 and 2015-2018
- Advisor and co-founder, Industrial Engineering Students' club, GJU, 2011-2014.
- Member of "engineering degree's accreditation" committee, mechanical engineering assembly-Jordanian Engineers Association, 2009-2011.

Sample of Projects

A. Research

- Solar ejector cooling system for residential and small-scale commercial buildings in Jordan: Experiments, Modeling and cost-benefit analysis, 2013-2015. (Funded by \$150300 from the Scientific Research Support Fund-Jordanian Ministry of High Education and Scientific Research)
- (Principal researcher) Reducing the Manufacturing Cost of PVC Products Using Appropriate Fillers, Plasticizers, and Recycled PVC Pellets, 2010-2013. (Funded by \$70800 from the Scientific Research Support Fund-Jordanian Ministry of High Education and Scientific Research)
- (Principal researcher) Warehouse Design and Control via Simulation (Multi phases project), 2010-2012. (Partially funded by \$4400 for students' graduation project by King Abdullah II Fund for Development (KAFD))
- Supply Chain Management in Jordan: Gap Analysis and Improvements Opportunities, 2010-2012.
- (Principal researcher) Reducing the Manufacturing Cost of PE Sacks Using Appropriate Fillers, Copolymers, and Recycled PE Pellets, 2008-2010. (Funded by \$35000 from the GJU Research Deanship and the Jordanian High Council of Science and Technology-SRTDI)
- Development of Optimized Strategies for the High Speed Milling of Aircraft Aluminum Parts within Thin Sections, 2001-2002, Wichita, USA. (Funded by Cessna and Raytheon Aircraft Companies)

B. Educational

- Middle Eastern Partnership in Sustainable Engineering, 2011-2014. (TEMPUS project funded by 630000 Euro and is running by group universities from the Middle East and EU countries)
- An Industry Oriented MSc. Program in Telecommunications Engineering- Towards an EU Approach, 2010-2013. (TEMPUS project funded by 1100000 Euro and is running by group universities from Jordan and EU countries)

C. Industrial/Consultation

- Supply Chain Management Agility and KPIs at Al-Hikma Pharmaceutical Company/Jordan, 2011. (Partially funded by the Faculty for Factory (FFF) program)
- Studying and Improving the Strategic and Operational Warehousing Decisions at FINE, 2009. (Partially funded by the FFF national program)
- Planning the Foundation for a New Quality Assurance Lab for the PVC Products at the Gulf Technical Industrial Establishment, 2007. (Partially funded by FFF)
- Analyzing the Economic Feasibility of a New PE Recycle Unit at the Gulf Technical Industrial Establishment, 2007. (Partially funded by FFF)
- Designing a New Organizational Quality Management Program at Al-Majd Plastic Industry Co. Ltd., 2006. (Partially funded by FFF)
- Developing the ‘As-is’ and the ‘To-be’ Value-Maps for Shockerphant Manufacturing Company (SMC), 2001, Wichita, USA.

Sample of Training Courses (Courses I Gave)

- Total Quality Management, LEADS Academy, 2013, 2014, & 2015.
- Statistical Quality Control, LEADS Academy, 2013, 2014, & 2015.
- Six Sigma Green-Belt Training, LEADS Academy, 2013, 2014, & 2015.
- Logistics, Supply Chain & Transport Management Program - European Arab Institute for Management and Technology, a professional diploma accredited by Cambridge International Colleague, 2010, 2011, 2012, 2013 & 2014.
- Applied Statistical Analysis and Quality Control Applications - Al-Hikma Pharmaceutical Company, 2011.
- Quality Management and Standardization, Petroleum Training Center, Khartoum-Sudan, 2011.
- Operations Management and Enhancement, Petroleum Training Center, Khartoum-Sudan, 2010.
- Building and Implementing a Balanced Scorecard: A Novel Performance Measurement Methodology - Arab Institute for Professional Training, 2009.

Publications

A. Referred Journals’ Papers

- Fox S., El-Thalji I., **Altarazi S.**, 2017, "Good intentions with limited outcomes: Three limitations of trying to reduce mass migration with industrial thinking", *Technology in Society*, 50, 31-32.
- Ayman N., **Altarazi S.**, 2017, "Integration of value stream map and strategic layout planning into DMAIC approach to improve carpeting process", *Journal of Industrial Engineering and Management*, 10(1), 73-89.
- **Altarazi S.A.**, Allaf R.M., 2016, "Designing and analyzing a mixture experiment to optimize the mixing proportions of polyvinyl chloride composites", *Journal of Applied Statistics*, 1-25.
- Gharaibeh K., Kaylani H., ..., **Altarazi S.A.**, ..., 2014, "A Masters Programme in Telecommunications Management Demand-Based Curriculum Design", *European Journal of Engineering Education*, 40(3), 267-284.

- Shqair M.I., **Altarazi S.A.**, Al-Shihabi, S., 2014, "A statistical study employing agent-based modeling to estimate the effects of different warehouse parameters on the distance traveled in warehouses", *Simulation Modelling Practice and Theory*, 49, 122-135.
- **Altarazi S.A.**, 2013, "A New Prioritizing-Stacking Heuristic Algorithm for the Inner-City Truck Loading Problem", *International Journal of Business & Management*, 8(13), 137-143.
- Ziout A., Azab A., **Altarazi S.A.**, ElMaraghy W.H, 2013, "Multi-Criteria Decision Support for Sustainability Assessment of Manufacturing System Reuse", *CIRP Journal of Manufacturing Science and Technology*, 6, 59-69.
- **Altarazi S.A.**, 2011, "An Optimization Tool for Operational Tolerances Allocation, Work in Process Inventory Minimization, and Machines Assignment in a Discrete Part Manufacturing Environment", *International Journal of Advanced Manufacturing Technology*, 55, 1069-1078.
- Mandahawi N., Alshihabi S., **Altarazi S.A.**, 2011, "A Max-Min Ant System to Minimize Total Tardiness on a Single Machine with Sequence Dependent Setup Times Implementing a Limited Budget Local Search", *International Journal of Research and Reviews in Applied Sciences*, 6(1), 30-40.
- **Altarazi S.A.**, Garaibeh K., and Mandehawi N., 2010, "In-Production Product Value: A New Method for Part Type Prioritization", *Jordanian Journal of Mechanical and Industrial Engineering*, 4 (2), 190-195.

B. Conferences' papers

- **Altarazi S.A.**, Hijazi L., Kaiser E., "Process Parameters Optimization for Multiple Inputs-Multiple-Outputs Pulsed Green Laser Welding via Response Surface Methodology", 2016 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), Bali, Indonesia.
- **Altarazi S.A.**, Sudani G., Rajab Z., Karadsheh Z., Bursheh A., 2016, "A Taguchi-Continues Simulation Approach to the Injection Molding Blowing Process Quality Improvement", *Proceedings of the 2016 International Conference on Industrial Engineering and Operations Management*, Kuala Lumpur, Malaysia.
- **Altarazi S.A.**, Yasin O., 2015, " Integration of Process Planning and Scheduling with Sequence Dependent Setup Time: A Case Study from Electrical Wires and Power Cable Industry", In *Modelling, Computation and Optimization in Information Systems and Management Sciences*, pp. 283-294. Springer International Publishing, 2015.
- Ammouri M., **Altarazi S.A.**, 2014, "Prediction of Polyvinylchloride Composites' Properties Using Artificial Neural Network", *Proceedings of the 1st International Conference on Industrial, Systems, and Manufacturing Engineering*, Amman, Jordan.
- Shqair M.I., **Altarazi S.A.**, 2014, "Layout design of multiple blocks class-based storage strategy warehouses", *Proceedings of the 2014 International Conference on Industrial Engineering and Operations Management*, Bali, Indonesia.
- **Altarazi S.A.**, Hemeimat R., Wakileh M., Qsous R., Khreisat A., 2013, "Optimizing Materials Cost and Mechanical Properties of PVC Electrical Cable's Insulation by Using Mixture Experimental Design Approach", *International Conference on Mechanical, Materials and Mechatronics Engineering*, Madrid, Spain.
- **Altarazi S.**, Ammouri M., and Alzubi E. 2012. "Concurrent Manual-Order Picking Warehouses Design via Simulation." *proceedings of the IIE Annual Conference.*

Orlando: USA.

- Kaylani H., **Altarazi S.A.**, 2011, "Simulation Based Genetic Algorithm Approach for Integrating Process Planning and Scheduling Functions", proceedings of the IASTED annual conference.
- Ziuot A., ElMaraghy W.H., **Altarazi S.A.**, 2011, "A Model for Sustainability Assessment of Manufacturing System Reuse: Case Study in A Developing Country", Proceedings of the 44th CIRP Conference on Manufacturing Systems.
- **Altarazi S.A.**, Ammouri M., 2010, "A Simulation-Based Decision Making Tool for Key Warehouse Resources Selections", World Congress on Engineering, London, UK.
- **Altarazi S.A.**, Abdallah A., 2009, "An Integrated Model of Allocating Operational Tolerances and Minimizing Lateness in a Discrete Part Job Shop Environment", IERC annual meeting, Miami, USA.
- Imrhan S., Mandahawi N., **Altarazi S.A.**, 2009, "An Anthropometric Survey of Jordanian Adults", XXIst Annual International Occupational Ergonomics and Safety Conference, Dallas, USA.
- **Altarazi S.A.**, Mandehawi N., 2008, "A Simulated Annealing Algorithm for Spatial Straightness Error Evaluation", IERC annual meeting, Vancouver, Canada.
- Mandehawi N., **Altarazi S.A.**, Obeidat, M., Imrhan, S., 2008, "Body Anthropometry on a Sample of Jordanian Males", IERC annual meeting, Vancouver, Canada.
- **Altarazi S.A.**, Cheraghi S.H., 2005, "Fuzzy Process Capability Evaluation (FPCE)", IERC annual meeting, Atlanta, USA.
- **Altarazi S.A.**, Cheraghi S.H., 2005, "An Operational Tolerance Allocation Method with Probabilistic Process Capability", IERC annual meeting, Atlanta, USA.
- **Altarazi S.A.**, Cheraghi S.H., 2005, "Expert's-based operational tolerances allocation approaches", First Annual symposium, Wichita State University, Wichita, USA.

Professional Societies

- Jordanian Engineers Association (JEA).
- Institute of Operations Research and Management Science (INFORMS).
- American Society for Quality (ASQ).
- Institute of Industrial Engineering (IIE).
- Alpha Phi Mu (Honor Society).
- Society of Industrial Applications of Mathematics (SIAM)
- Society of Industrial Engineering and Operations Management (IEOM)