

Doraid M. Dalalah

Associate Professor
Industrial Engineering and Engineering
Management
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- Objective:** To secure a challenging and responsible associate professor position that will allow me for the next year/years to utilize my care-giving knowledge, experience and supervisory skills in the field of engineering science, education and research, particularly, in Industrial and Systems Engineering. My hope that through possessing strong qualifications, administrative and communication skills, as a teacher, a researcher and as an author, I will be able to improve my career position and will be capable of demonstrating my experience, knowledge and passion to ABET standards as well as applied research.
- Date of birth** 13/12/1972 – Jordan.
- Education:**
- PhD in Industrial and System Engineering, Lehigh University- PA-USA, 2005.
Thesis Title: “Internet Congestion Optimization and Control in Data Networks”.
Lehigh University rank in IE: 18th nationwide.
 - Master degree in Industrial Engineering, design and manufacturing branch, University of Jordan, 1999.
Thesis Title: Robot Trajectory Planning Using Neural Networks.
Rank: Top 10%.
 - B.Sc. In Mechanical Engineering – Industrial Engineering Branch (Production Branch), Jordan University of Science and Technology, 1996. Rank: Top 10%.
- Awards:**
- EB1 – USA permanent residency (green card) for aliens with extraordinary abilities.
 - PhD. Degree scholarship.
 - Master degree Scholarship.

Administrative Experience:

1. Vice dean of Students Affairs and Director of King Abdullah II Fund for Development, Jordan University of Science and Technology, Sep. 2012-Sept. 2014.
2. Chairman of Industrial Engineering, Jordan University of Science and Technology, Sep. 2010-Sep. 2012.
3. Assistant Dean, Faculty of Engineering, Jordan University of Science and Technology, Sept. 2007-Sep. 2010.

Teaching Experience:**Fulltime:**

1. Kuwait University, Industrial and Management System Engineering, Associate Prof: Sept. 2014 - Aug. 2018 (end of contract).
2. Jordan University of Science and Technology - Industrial Engineering Department: 2005-Sep. 2014:
 - Associate Prof.: Sep. 2010-Sep. 2014.
 - Assistant Professor, Sept. 2005 to Sep.2010.
3. A lecturer in Al-Balqa university-Amman College, Courses: Control, Control Lab, CNC, and Automation, Descriptive Geometry, Oct. 1999- Dec. 2000.

Part-time:

4. Assistant professor (part time), Jordan University-Amman, fall 2008-spring 2009, lecturer for Human Factors.
5. Assistant professor (part time), Yarmouk University, Fall/spring 2010, part time lecturer for Operations Management.
6. Part-time Lecturer- Lehigh University- Bethlehem-PA, Summer 2004. Introduction to Manufacturing Processes.
7. Part time lecturer at Delaware valley college –PA -USA, Introduction to PC hardware and AutoCAD, Fall 2004.
8. Part-time Lecturer- Lehigh University- Bethlehem-PA, 2001-2005. Engineering Computing and Numerical Methods.
9. Part-time Lecturer, Lehigh University- Bethlehem – PA- USA, 2002. Manufacturing Lab Instructor:

Industrial Experience:

1. Two years as a mechanical engineer in Hydraulics and Maintenance Department at the Jordan Cement Factories (JCF), Jun. '97-Sep. '99.
2. Mechanical design engineer (Part time), Freedom lift, Green Lane, PA, USA. 2003-2005.
3. Mechanical design engineer (Part time) – Enterprise systems- Lehigh University, Dec. 2001 - 2005.
4. Three months (summer job) as mechanical engineer at Balazs Boxing Co. Bethlehem, PA-USA, Jun.-Aug 2001, Tel: 610 433 4515.
5. Two years as a research and teaching assistant in the Industrial Engineering Department at the University of Jordan in the fields: Instrumentation, Design, Metrology lab, Sep 1996 - Jun. 1998.

Publications:**Journals:**

1. Doraid Dalalah, Wasfi Al-Rawabdeh, (2017) "Benchmarking the utility theory: a data envelopment approach", *Benchmarking: An International Journal*, Vol. 24 Issue: 2, pp.318-340, <https://doi.org/10.1108/BIJ-11-2015-0105>
2. Doraid Dalalah: LSP-Constrained Supply Chains: A Discrete Event Simulation Model. *RAIRO – Operations Research* 50(1): 1-17 (2016).
3. Majid M. Aldaihani and Doraid M. Dalalah, "Capacitated supply chain: an optimisation model", *Int. J. Logistics Systems and Management*, Vol. 24, No. 1, 2016.
4. Doraid Dalalah, Majid Aldaihani, "Retailer Driven Supply Chain With Limited Transportation Capacities and Supply-Demand Market Index", *International Journal of Integrated Supply Management*, Vol. 10, issue 2, 2016.
5. Doraid Dalalah; Khaled Alkhaledi. A stochastic non-expected utility for modelling human errors of certainty equivalents. *IJADS*, 2016, Vol. 9, No. 3.
6. Omar Al-Araidah, Dalalah, D., Azeez, M.A-A. and Khasawneh, M.T. A heuristic for clustering and picking small items considering safe reach of the order picker,. *European J. Industrial Engineering*, 2017, Vol. 11, No. 2, pp.256–269.
7. Wasfi A. Al-Rawabdeh and Doraid Dalalah. Predictive decision making under risk and uncertainty: A support vector machines model. *RAIRO-Oper. Res.* 51 (2017) 639-667.
8. Mohammed Al-Salem · Ali Diabat · Doraid Dalalah · Mahmoud Alrefaei, "A closed-loop supply chain management problem: Reformulation and piecewise linearization", *Journal of Manufacturing Systems*, Vol. 40 (2016) 1–8.
9. Doraid Dalalah, Dania Bani Hani, "A precision-to-tolerance ratio model for the assessment of measurements uncertainty", *Precision Engineering*, Volume 44, April 2016, Pages 143-151.
10. Doraid Dalalah, Dania Bani Hani, "On the actual and observed process capability indices: A signal-to-noise ratio model", *Measurement*, Volume 81, March 2016, Pages 241-250.
11. Doraid Dalalah, Wasfi A. Al-Rawabdeh & Hussam Alshraideh, "The beta stochastic utility (β -SU)", *Stochastic Analysis and Applications*, Volume 34, Issue 3, 2016, pages 456-482.
12. Doraid M. Dalalah, Mohammed Hayajneh, Amana Sanajleh:

- Modelling decision making under risk and uncertainty by novel utility measures. *IJADS* 8(2): 179-202 (2015).
13. Doraid Dalalah: Proportional fairness: more secrets revealed. *Int. J. Communication Systems* 28(16): 2122-2144 (2015).
 14. Doraid Dalalah and Ali Diabat, "Repeatability and reproducibility in med labs: a procedure to measurement system analysis", *IET Science, Measurement & Technology*. Volume 9, Issue 7, October 2015, p. 826 – 835.
 15. Doraid Dalalah, Samir Khrais, Khalid Bataineh, "Waste minimization in irregular stock cutting", *Journal of Manufacturing Systems*, 2014, (33) 1, 27-40.
 16. Khaled Bataineh, Doraid Dalalah, Assessment of wind energy potential for selected areas in Jordan. *Renewable Energy*. Volume 59, November 2013, Pages 75–81.
 17. Doraid Dalalah, Wasfi Rawabdeh "Cost driven traffic assignment in transportation networks", *Int. J. Modelling in Operations Management*. Vol. 3, issue 3, 2013.
 18. Doraid Dalalah, Mohammad Tahat, Khaled Bataineh "Mutually Dependent Multi-Criteria Decision Making" *International Journal Of Fuzzy Information And Engineering*, 2012. Volume 4, Issue 2, pp 195-216.
 19. Mohammad Tahat, Doraid Dalalah "Dynamic Programming Model for Multi-stage Single-product Kanban-Controlled Serial Production Line" *Journal of Intelligent Manufacturing*, Volume 23, Issue 1, pp 37-48.
 20. K. Bataineh and D. Dalalah, "Optimal Configuration for Design of Stand-Alone PV System," *Smart Grid and Renewable Energy*, Vol. 3 No. 2, 2012, pp. 139-147. doi: 10.4236/sgre.2012.32020.
 21. Doraid Dalalah, Mohamed Hayajneh, Farhan Bateiha, "A Fuzzy Multi-Criteria Decision Making Model for Supplier Selection" Volume 38, Issue 7, July 2011, Pages 8384-8391.
 22. Doraid Dalalah, Faris AL-Oqla, Mohammed Hayajneh. Application of the Analytic Hierarchy Process (AHP) in Multi-Criteria Analysis of the Selection of Cranes. *JJMIE*, Volume 4, Number 5, November 2010, pages 567 - 578.
 23. Doraid Dalalah, 2009. Real-Time Optimization Flow Control. *Computer Networks*, Volume 54, Issue 5, 8 April 2010, Pages

797-810.

24. Doraid Dalalah, Omar Ariadah, 2009, Dynamic Decentralized Balancing of CONWIP Production Systems. *International Journal of Production Research*, vol. 48, no. 13, pp. 3925-3941, 2010.
25. Doraid Dalalah, Omar Bataineh, 2008. A fuzzy logic approach to the selection of the best silicon crystal slicing technology, *Expert Systems With Applications*. Volume 36, Issue 2, Part 2, March 2009, Pages 3712-3719.
26. Omar Bataineh, Doraid Dalalah, 2009. Strategy for optimising cutting parameters in the dry turning process of aluminium based on design of experiments and the generalised pattern search algorithm. *Int. J. Machining and Machinability of Materials*. Vol. 7, Nos. 1/2, 39-57.
27. Doraid Dalalah, 2009. Piecewise Parametric Polynomial Fuzzy Sets. *International Journal of approximate reasoning*. Vol. 50, Issue 7, Pages 1081-1096.
28. Doraid Dalalah and Benjamin Lev, Duality of the improved algebraic method (DIAM), *Omega* 37:1027 (2009).
29. Dalalah, D.; Cheng, L.; Tonkay, G. 2008. Modeling End-to-End Wireless Lossy Channels: A Finite-State Markov Approach, *IEEE Transactions on Wireless communications*. , Volume: 7, Issue: 4, pp.1236-1243.
30. Doraid Dalalah, Sami Magableh, 2008. A Remote Fuzzy Multi-Criteria Diagnosis of Strep Throat, *Telemedicine and EHealth Journal*, 14(7): 656-665.
31. Doraid Dalalah, M. T. Hayajneh, 2007. Dynamic neural model for mobile Robot navigation, *Neural Network World*, Vol. 17, No. 1, pp.65-80.
32. Doraid Dalalah. , Khaldoun Tahboub “Mobile Robot Trajectory Planning Using Neural Networks”, *International Journal of Robotics and Automation*. Vol. 18, No. 2, 2003. p55.

Currently Submitted Work:

1. Doraid Dalalah, Logistic Resources Allocation in Supply Chains, submitted to OMEGA.
2. Doraid Dalalah, Testing Process Capability and Benchmarking the Signal-to-Noise Ratio of Erroneous Measurements, submitted to *International Journal of Industrial Engineering: Theory, Applications and Practice*.

3. Doraid Dalalah, Optimization of Red Blood Cells' Inventory: an ABO Compatibility-Preference and Emergency Model, submitted to Annals of operational research.
4. Doraid Dalalah, Benchmarking of Six-Sigma in Telecom Services, submitted to Benchmarking.
5. Doraid Dalalah, Platelets Inventory Management: A Rolling Horizon Sim-Opt Approach for an Age Differentiated Demand, Journal of Simulation.
6. Doraid Dalalah, Loss Averse Newsvendor Model of Bounded Utility. Submitted to Journal of Industrial and Production Engineering.
7. Doraid Dalalah, Risk Premiums of Loss-Averse Newsvendor of Bounded Utility. Submitted to Operations Research Perspectives
8. Doraid Dalalah, Multi-Period Age-Discriminated Perishable Inventory. Submitted to Journal of Industrial Engineering and Management.
9. Doraid Dalalah, On Perishable Inventory: Random Expiration Dates and Age Discriminated Demand. Submitted to IJOPM.

Conferences:

1. Doraid Dalalah. Management of age differentiated perishable inventory. IEEE International Symposium on Systems Engineering (ISSE 2017) 30 October 2017, Vienna, Austria.
2. Doraid Dalalah, 2008. Optimization Flow Control: A Queue Proportional Algorithm, ISIC 2008. IEEE International Symposium on Intelligent Control, San Antonio, TX, USA. 401-407.
3. Doraid Dalalah, 2009. A Hybrid DEMATEL-TOPSIS Multi-Criteria Decision Making Model. IEEE conference on information Reuse and Integration IRI-2009, Aug. 2009. LasVegas-USA. Page: 428.
4. Doraid Dalalah: Congestion Optimization in Data Networks. DMS 2010, USA, Chicago, 88-93.
5. Doraid Dalalah. "Mobile Robot Path Planning in a 2-Dimensional Mesh". World Academy of Science, Engineering and Technology

vol. 62, 2010, Malaysia.page: 236.

6. Doraid Dalalah. "Decentralized Work-in-process Optimization in Cooperative Resource Allocation", 7th International Conference on Collaborative Computing: Networking, Applications and Worksharing. Orlando, Florida, USA, October 15-18, 2011.
7. Stochastic Non-Utility Certainty Equivalents (SNCE) of Decision Making Under Risk and Uncertainty, International Conference on Technology and Business Management, Dubai March 24-26 2014.

**Citation records
(from google scholar)**

Around 500 citations can be found in google scholar for the above publications. One paper has hit almost 200 citations.

**Master thesis
advising**

1. Modeling Decisions Under Risk and Uncertainty With Novel Utility Measures, Summer 2014.
2. Six Sigma: Modeling the tradeoffs between the actual and the observed capability indices with existing measurement errors, Summer 2014.
3. Developing a New Hybrid Fuzzy Model in Multi Criteria Decision Making Problem, Fall 2009.
4. Card flow control technique in sizing the number of pallets in automatic pallet change, Fall 2008.
5. Design and analysis of a person-on-board in the aisle order picking system, Fall 2007.

**BSc. Graduation
Project advising
(sample)**

1. Optimizing Project Networks using DAE.
2. Data Envelopment Analysis: A case study.
3. Repeatability and Reproducibility in Measurement System Analysis: A case study.
4. Simulation Study at Outpatients Clinics, Jordan University Hospital.
5. AHP online (Analytical Hierarchy Process online)
6. Operations and skills Management at El-Zay Ready Wear Company
7. Application of Quality Function Deployment in Jordanian Hotels: A case study.
8. Best Cut: An optimization Approach For Managing Sheet Cuts And Layouts
9. Design and manufacturing of All-blade positive-torque wind turbine.
10. The design and analysis of a Gyroscope.
11. Quality Improvement in Jordan Telecommunication Companies
12. Optimal Selection of Location for Jordanian Hospitals by Using the analytical Hierarchy Process and Sensitivity analysis
13. Inventory control and Operations Management in Pharmaceutical Companies
14. Simulation case study: Vehicles licensing office of Irbid City (Al-Sareeh).
15. Civil Affairs Passports office of Irbid City Note: Grad Project 2.
16. Simulation of the Fastlink call center with Arena

17. Data Traffic Control in Networks.
and many others not listed...

Delivered Workshops

1. Graphics. Kuwait Directorate General of Civil Aviation. Kuwait 13-17/9/2015.
2. PDF Professional, Kuwait Public Authority for industry. Kuwait: 1/3-5/3-2015.
3. Inventory planning and control, Saudi Arabia, Damman, 8-12 Sept. 2012.
4. Maintenance Management, Oman –Mascut, June 20 – 30, 2009.
5. SolidWorks: Consultative center of Jordan University of Science and Technology, 2011.
6. SPSS: Consultative center of Jordan University of Science and Technology, Jan. 2012.
7. How to master Photoshop, Jordan, Jordan University of Sci. and Tech. Consultative center, delivered many times.

Capabilities Brief:

Computer applications:

Programming: Matlab, Visual Basic, C++, C, Java, Java Script, HTML development, ASP, PHP, SQL, XML, PLC/CNC.

Software: Arena Simulation, Promodel, MS office, MS project, Primavera, AutoCAD, Solidworks, I-DEAS, MINITAB, SPSS, Corel Draw, Adobe PhotoShop and Illustrator, Dreamweaver, Frontpage, Flash, and many other widely used computer applications. You may see my webpage I designed myself at: <http://www.just.edu.jo/~doraid>.

Others:

Excellent knowledge in Control Theory, Control lab, Electronics, Programming, Mathematics, CNC/PLC, Automation, Robotics, Artificial Intelligence, Instrumentation, Hydraulics, Pneumatics and many other related topics.

Languages:

English: Excellent.
Arabic: Native Language.

Courses:

Scheduling, Supply chains, Simulation of Stochastic Processes (Arena/Promodel), Operations Research I and II, Advanced Operations Research, Decision and Data Analytics, Applied Statistics, Six Sigma, Quality Control and Management, Design of Experiments, Reliability and Maintenance, Production Planning and Control, Facilities Planning and Warehousing.

In addition to the following:

Computer Aided Design and Manufacturing, Design of Production Systems, Manufacturing Systems, Production Processes, Industrial Drawing, Statics, Mechanics of material, Automatic Control.

In addition to my ability to dig into any course according to needs.

Grants:

1. Shortage and Outdate Optimization of Red Blood Cells Inventory at Hospitals, 12000US dollars.
2. The design and manufacturing of Omni-Wheel Robot Arm: Funded by Deanship of Research: 8000JD.
3. Data Acquisition Project, Funded by Deanship of Research: 1500JD.

Funded Projects :

1. Quality Control and Documentation of Foam Making At Bibars Foam Factory . FFF program, 2007, Fund 3700JD
2. Redesign of the Truck Trailer Tank Support System at The Boss Company. The Boss For Truck Trailers . FFF program, 2009, Fund 3700JD
3. Developing and Designing of Adjustable Saw Blade Housing System at Bibars Foam Co. for Minimizing Foam Waste . FFF program, 2009, Fund 3500JD
4. Design and Manufacturing of Foam Mass Cutting Saw Machine . HCST, 2009, Fund 5000JD
5. The Modification of Tank Trailers to Flat Bed and Boxed Bed Trailers. HCST, 2009, Fund 22000JD
6. Modifying the pneumatic pump in Jordan Cement Factories. JCF

**Committees
(sample)**

1. Undergraduate Program Committee for IMSE department.
 2. Assessment coordinator for the IMSE department.
 3. Coordinator of the Senior Design Evaluation committee.
 4. Chair of Scholarship committee.
 5. Coordinator of the IMSE facilities development committee.
 6. Chair of IMSE conference committee.
 7. Accreditation Board of Engineering Technology (**ABET**) committee chair and member.
 8. University E-learning Strategic Planning Committee / Member.
 9. Faculty of Engineering Promotion Committees /Chair and Member.
 10. Faculty of Engineering Website Development Committee Chair.
 11. Faculty of Engineering Annual Report Coordinator.
 12. Faculty of Engineering Training Committee / Committee Chair.
 13. Great Arab Revolt Club / Consultant 2009.
 14. Student Union Election coordinator and supervisor, 2010, 2008.
 15. Student Affair Committee - Student deanship, 2008-2010.
 16. Department Higher Education Committee / Committee Chair.
 17. Faculty exchange-students and course equivalency committee / Committee chair.
 18. Department Social Committee / Chair and member.
 19. Member of the Jordan Engineers Association.
 20. Member of the American Society of Mechanical Engineers
- And many others...

Service as a reviewer in international journals (sample)

I have served and still serving as reviewer for many international journals such as:

- IEEE Transactions on Fuzzy sets and Systems.
- International Journal of Production Research, Tylor and Francis.
- Omega, Elsevier.
- European Journal of Operations Research, Elsevier.
- Simulation, Applications, Theory and Practice, Elsevier.
- European Journal of Industrial Engineering, Inderscience.
- RAIRO - Operations Research, *edp* sciences.
- Benchmarking, Emerald.
- International Journal of Logistics and Supply Management, Inderscience.
- Computers and Industrial Engineering, Elsevier.
- Knowledge Management Research & Practice, Elsevier.

And many others...

References:

1. Dr. Khalid Mayyas, Former Dean of Faculty of Engineering, Electrical Engineering Department, Jordan University of Science and Technology, email: Mayyas@just.edu.jo
2. Mohammed T. Hayajneh, Vice dean of faculty of engineering, Jordan University of Science and Technology. Email: hayajneh@just.edu.jo
3. Dr. Ahmad Shlash Alawneh, Dean of Students Affairs, Jordan University of Science and Technology, Jordan. Email: asshslash@just.edu.jo