

HAZEM KAYLANI
German Jordanian University
P.O.Box: 35247
Amman 11180 Jordan
Phone: +962 6 5330290
Mobile +962 79 9688188
Email: hazem@e-incube.com
hazem.kaylani@gnu.edu.jo

Education

Ph.D.	2004	Arizona State University, Industrial Engineering (Operations Research) Dissertation: "Applying Hybrid Push/Pull Design To Fork/Join Queuing Networks Of Manufacturing Systems Using Genetic Algorithms".
MS	1996	University of Jordan, Industrial Engineering Thesis: "Effect of Addition of Alloying Element and Heat Treatment on Aluminum Machinability".
BS	1986	University of Jordan, Mechanical Engineering.

Employment History

2007- To Date	Dean, School of Technological Sciences, German Jordanian University.
2006- To Date	General Manager, InCube-regional office, Amman.
2006- To Date	Assistant professor, German Jordanian University. Courses taught include Statistics, Production Planning and Inventory Control, Operations Research, Simulation and Optimization, Motion and Time Study, Manufacturing Processes, Engineering Economics, Supply Chain, Quality Assurance. Founding member, established study program for the Industrial and Management Systems Engineering Department,.
1998 - 2006	Industrial Engineer and Simulation Analyst, The Boeing Company Project engineer for systems analysis and feasibility studies. Responsibilities include the solicitation of budget, project scope definition, scheduling, resources management, data coordination, and presentation. Provided engineering support to a number of main manufacturing systems. Member of the Subject Matter Expert Simulation team SME SIM at Boeing,
1996 – 1998	Teaching Assistant, Arizona State University. Teaching assistant for the following courses: Operations Research, Manufacturing Processes and Computer Aided Manufacturing and Control.
1997	Simulation Analyst, McDonnell Douglas Helicopter Systems. Full-time position - Simulation analyst.
1987 - 1996	Teaching Associate, University of Jordan/ I.E. Dept Taught courses in Simulation, Operations Research, production planning and control Computer Aided Manufacturing, and metrology. Supervised the following engineering laboratories: metrology, Manufacturing Processes, Automation, Computer Integrated Manufacturing.

Professional Awards

- Awarded the Boeing Recognition Award in 2002.
- Received Pride @ Boeing Appreciation Awards during the period 2001-2005
 - Structural Modification Management Support Jun. 2001
 - Structural Modification IE Support Apr. 2002
 - Material Requirements Planning WDS ERP Core Evaluation Jun. 2002
 - Point of Use Transformation Team Oct. 2003
 - Boeing Enterprise Simulation SME Team May 2004
 - Structural Modification Production Engineering Support April 2005
 - High Performance Work Team May 2005
 - Production Engineering Support Aug 2005
 - Materials Management Support Sept 2005

Courses Developed And Taught

Taught several courses for both graduate and undergraduate students (both Engineering and Business) including; Statistics, Production Planning and Inventory Control, Operations Research, Simulation and Optimization, Motion and Time Study, Manufacturing Processes, Engineering Economics, Logistics and Supply Chain Management, Engineering Marketing, Quality Assurance, and Quality Management.

Sample Simulation and Feasibility Studies/ Projects

- Design of a Variable Length Conveyor System for Loading Long Flat Bed Trailers - Fine Hygienic Paper Company, 2011.
- Process Improvement, - Jerusalem Textile Company – Develop organizational structure and establish production planning and control system, 2009.
- Motion and Time Study JLVM / KADDB - establish a reporting system and identify metrics necessary to evaluate performance and assess utilization, 2007.
- Cost Saving feasibility Analysis / Boeing – space, tooling and manpower requirement. The model assisted in estimating the cost of implementing different alternatives s, 2005.
- Space and Manpower Requirements / Boeing – create a layout of a pulsed moving line and determine space and manpower requirements of the ARH helicopter, 2005.
- Pulsed Moving Line Analysis / Boeing – establish a pulsed moving line for the A-160 aircraft. The purpose of the analysis is to estimate manpower requirements, balance the line and reduce out-of-position traveled work, 2004.
- Production Control / Boeing - A simulation model of a tube shop was used to evaluate the applicability of hybrid push/pull control strategies in a Just in Time environment., 2004.
- Tooling Layout / Boeing – A proposed and As-Is layouts of a tooling shop were compared and analyzed. The model was used to determine throughput, cycle times and evaluate alternative scheduling strategies, 2003.
- Process Flow Analysis / Boeing – A study to determine the process bottlenecks, maximum throughput, cycle and setup times of laser wire cut machines, 2001.

- Scheduling / Boeing - A model was built to assist with the scheduling of the C-17 wire harnesses lay-up and to maximize capacity and throughput, 2000.
- Capacity Planning / Boeing - Complete analysis was performed to determine the throughput and production requirements of aircraft paint shop. The model predicted manpower levels and space requirements under different production rates, 1999.

Areas of Research and Teaching Interest

Optimization of Stochastic Models
 Discrete Event Simulation Tools for Manufacturing
 Hybrid Production Control Systems
 Quality Assurance in Global Supply Chains

Publications

1. Kaylani, H.A., and Altarazi, S. A., "Simulation Based Genetic Algorithm Approach for Integrating Process Planning and Scheduling Functions", Proceedings of the IASTED International Conference on Modelling, Simulation and Identification (MSI 2011), 2011, TBD.
2. Nathir Rawashdeh, Mohammad Nazzal, Hazem Kaylani, Harald Loose, "Mechatronics Engineering Curriculum Enhancement at the German Jordanian University", *11th International Workshop on Research and Education in Mechatronics*, Ostrava, Czech Republic, September 2010
3. Rabadi, G., and Kaylani, H., "Towards a Center for Modeling and Simulation: The Case for Jordan", *International Workshop on Enterprise & Organizational Modeling and Simulation*, June 7-8, 2010, 99-113, Hammamet, Tunisia.
4. Kaylani, H. A., and Zaid, A. I., "Effect of Heat Treatment on the Wear Resistance of Aluminum Silicon Alloys", *The 13th International Conference on Machine Design and Production* 03 - 05 October 2008, Istanbul, Turkey
5. Beisenbach, R., Dudziak, R., and Kaylani, H., "Cooperation with German-Jordanian University, Amman, Jordan, In Mechatronics study course", *1st Int Engineering Sciences Conf*, November 2008, Aleppo, Syria.
6. Cochran, J.K., and Kaylani, H.A., "Optimal Design of a Hybrid Push/Pull Serial Manufacturing System with Multiple Part Types", *International Journal of Production Research*, 2008, Vol. 46, No. 4, 949-965
7. Biesenbach, R., and Kaylani, H., "Mechatronics Study Course at The German-Jordanian University Amman, Jordan", *9th International Workshop on Research and Education in Mechatronics*, September 18th-19th 2008, Bergamo, Italy
8. Kaylani, H.A., and Cochran, J.K., "A Computational Approach Optimizing Push/Pull Flow In An Aerospace Transmission Overhaul Shop", Proceedings of the 17th IASTED International Conference on Modelling and Simulation, 2006, 201--206
9. Khadra, L., Al-Agtash, S., Shibli, M., and Kaylani, H., "Jordanian Industry: Competency – based Evaluations and Needs Assessment in Automation and Manufacturing", German Jordanian University Technical Report, Amman, Jordan, 2006

10. Kaylani, H.A., and Cochran, J.K., "Optimal Design of a Hybrid Push/Pull Flow in a Tube Shop", Annual Simulation Solutions Conference, Manufacturing Track (20 pages) on CD-ROM, Orlando, FL (2004)
11. Zaid, A., Rahmatullah, H., Kaylani, , H., "Effect of Silicon Percent and aging Temperature on Mechanical Behavior and Machinability of Cast Aluminum", Proceedings of the Second Assiut University International Conference on Mechanical Engineering Advanced Technology for Industrial Production, Assiut, Egypt, Vol. 1, 285-292, March 2-4 (1999)
12. Cochran, J.K., and Kaylani, H.A., "Applying Hybrid Push/Pull Design To Fork/Join Queuing Networks Of Manufacturing Systems Using Genetic Algorithms", *European Journal of Operations Research* (in preparation)

Service

1. General manager, InCube-regional office, Amman, Jordan, 2006–2011
2. Acting Dean, School of Technological Sciences, German Jordanian University, 2007 – To date
3. Judging committee at the First LEGO League 2008, Dead Sea, Jordan
4. Department Chair, Industrial and Management Systems engineering, German Jordanian University, 2006 –2007
5. Judging committee at the First LEGO League 2007, Dead Sea, Jordan
6. Founding member, established study program for the Industrial and Management Systems Engineering Department, German Jordanian University, 2006.
7. Founding member, established study program for Mechatronics Department, German Jordanian University, 2006.
8. Founding member, established study program for the Maintenance Engineering Department, German Jordanian University, 2006.
9. Session Chair, IASTED International Conference on Modelling Design and Engineering, Montreal Canada, 2006.
10. German Jordanian University Quality Assurance (QA) officer for higher education at Al Hussein Fund for Excellence Institution, 2006.
11. Technical Reviewer for the seventh JEA International Mechanical Engineering Conference.
12. Technical reviewer for the International Journal of Production Research
13. Conducted ISO 9000 Training for Dubai Courts, 2006.
14. Member of the Subject Matter Expert Simulation team SME SIM at Boeing, 2002-2006.

Professional Affiliations

1. Member of the Institute for Operations Research and the Management Sciences (INFORMS)
2. Industrial Engineers Association of Jordan
3. Member of American Society for Engineering Education (ASEE)

Continuous Education Courses

Production Engineer Certificate/Boeing, 2004

Nationality

USA / JORDAN