Hussam Alshraideh, Ph.D

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EDUCATION

Dual Ph.D degree in Industrial Engineering and Operations Research with a *Minor in Statistics*, The Pennsylvania State University, Industrial Engineering Department, State College, PA. Ph.D dissertation:"Analysis and Optimization of Profile and Shape Response Experiments", **GPA 3.87/4**, August 2011.
Ph.D advisor: Professor Enrique Dell Castillo.

Masters of Science, Quality Engineering major, Arizona state university, Industrial Engineering Department, Tempe, AZ. Master's thesis: "Time Series Quality Data Modeling Using Hidden Markov Models", **GPA 4/4**, December 2007.
Thesis advisor: Professor George Runger.

B.Sc. In Industrial Engineering Jordan University of Science and Technology, Irbid, Jordan. Ranked First of my graduation class with GPA 88.7/100. Senior Project: "Aluminum Powder Metallurgy", a study of the microstructure, hardness, and machining of Aluminum based powder components were done. February 2004.
Project advisor: Professor Adel Hassan.

High school, Dair-Abi-Saieed Secondary School, Irbid, Jordan. Ranked First of my graduation class. GPA 90.3, July 1999.

EXPERIENCE

Assistant Professor 9/2011-Present
Jordan University of Science and Technology, Department of Industrial Engineering.

- Courses taught: Design of Engineering Experiments, Probability and Statistics, Applied Engineering Statistics, Quality Control, Operations Research, Numerical Methods, Systems Control and Automation, Data Mining and Computational Intelligence.
- Current research interests: Statistical methods for process monitoring and optimization, Medical Statistics, Data Mining applications in healthcare.

Research Assistant 8/2008-8/2011
The Pennsylvania state university, Department of Industrial and Manufacturing Engineering.

- Supervised by Professor Enrique del Castillo
- New methods for robust parameter optimization of profile and shape response experiments were studied.

Teaching Assistant 8/2008-8/2011
The Pennsylvania state university, Department of Industrial and Manufacturing Engineering.

- Taught Regression and Design of Experiments course under the supervision of Professor Enrique del Castillo

Teaching Assistant 1/2008-5/2008
Arizona state university, Department of Industrial Engineering.

- Teach Statistics for Engineers course.
- Train students how to use MINITAB.

Preventive Maintenance project with Intel 8/2007-1/2008

- Under the supervision of Professor George Runger, Arizona State University.
- A MATLAB GUI has been developed to analyze profile data using wavelets to predict the time at which a preventive maintenance have to be done.

Tutor 9/2006-12/2007
Arizona State University, East Campus, Mesa AZ.

- Tutor Math, Physics, Statistics, and Statics at all levels.

Teaching Assistant 4/2004-12/2004
Jordan University of Science and Technology, Department of Industrial Engineering.

Industrial Engineer and Production manager 2/2004-12/2005
Century Wear (a textile manufacturing company at Al-Hasan QIZ, a division of DELTA GALIL Textile industry).

- Duties included performing studies in the fields of Quality control, Time studies, Human Factors, and Facilities layout in order to improve the manufacturing system.
- Team leader of more than 100 workers facility.
- Implement and monitor "Traffic Light" quality system.

EJADA 2/2004-2/2005
Euro Jordanian Interaction for the Development of Small and Medium Enterprises.

- Different workshops in the field of Ethics, Management, Quality control, Operations Management, and others were attained.

Modern Aluminum Industries, MODAL. (internship) 7/2003-10/2003

- Trained on Quality control, Time standards establishing, and numbering systems.

HONORS AWARDS

Third place winners, Jordanian National Technology Parade, Hijawi Faculty, Yarmouk University, April 2014.

Second place in the College of Engineering research symposium for research poster presentation, College of Engineering, The Pennsylvania State University, April 2011.

Nominee for the best student research paper, INFORMS Conference, Austen, TX, November 2010.

Departmental Academic commendation GPA 4/4, Industrial Engineering Department, Arizona State University, January 2007.

Departmental Academic commendation GPA greater than 3.6, Industrial Engineering Department, Arizona State University, June 2006.

University Academic commendation, Ranked First of my graduation class, Industrial Engineering Department, Jordan University of Science and Technology, Jordan, February 2004.

Jordan University of Science and Technology Scholarship, January 2006-January 2011.

JOURNAL PUBLICATIONS

Alshraideh, H., and Qdais, H. A. (2016). Stochastic Modeling and Optimization of Medical Waste Collection in Northern Jordan. textitJournal of Material Cycles and Waste Management. Accepted paper.

Al-Hawari, T., Ena'am S, A. Z., and Alshraideh, H. (2016). Studying the Effect of Facility Size on the Selection of Automated Guided Vehicle Flow Configurations. *Journal of Automation and Control Engineering*, 4(2), 132-139. doi: http://dx.doi.org/10.12720/joace.4.2.132-139

Alshraideh, H. , Otoom, M., Al-Araida, A., Bawaneh, H., Bravo, J. (2015). A Web Based Cardiovascular Disease Detection System. *Journal of medical systems*, 39(10):122. doi: http://dx.doi.org/10.1007/s10916-015-0290-7

Otoom, M., Alshraideh, H., Almasaeid, H. M., Lpez-de-Ipia, D., and Bravo, J. (2015). Real-Time Statistical Modeling of Blood Sugar. *Journal of medical systems*, 39(10):123. doi: http://dx.doi.org/10.1007/s10916-015-0301-8

Qdais, H. A., and Alshraideh, H. (2016). Selection of Management Option for Solid Waste from Olive Oil Industry Using the Analytical Hierarchy Process. *Journal of Material Cycles and Waste Management*, 18(1), 177-185. doi: http://dx.doi.org/10.1007/s10163-014-0321-3

Abu-helalah M., Alshraideh H., Al-Smadi M., Hudaib M., Abdallah F., Ammarin Z., and Hijazeen J., (2015). Sources and Predictors of Stress among Medical Students in Jordan. *Bull. Env. Pharmacol. Life Sci.*, 4(6):113121.

Abu-Helalah, M. A., Alshraideh, H. A., Al-Serhan, A. A. A., Nesheiwat, A. I., and Al-Nawafleh, A. (2015). Epidemiology, attitudes and perceptions toward cigarettes and hookah smoking amongst adults in Jordan. *Environmental health and preventive medicine*, 20(6), 422-433.

Abu-Helalah, M. A., Alshraideh, H. A., Al-Serhan, A. A., Kawaleet, M., and Nesheiwat, A. I. (2014). Knowledge, barriers and attitudes towards breast cancer mammography screening in jordan. Asian Pacific journal of cancer prevention: APJCP, 16(9), 3981-3990.

Abu-helalah, M., Alshraideh, H., Hijazeen, J., Al-Ma'aitah, O., Al-Zu'bi, A., Abu Hassan, W., Al-Sbou, M., (2015) Antibiotics use and misuse among university students in Jordanian. Bulletin of Environment, Pharmacology and Life Sciences, 4(5), 62:71.

Alshraideh, H., Smadi, H., AboTaha, J., and Alomari, O "Reference Range Estimation: Accounting for Measurement System Errors", *Quality and Reliability Engineering International*, 2015.

Hijazeen J., Abu-Helalah M., Alshraideh H., Alrawashdeh O., Hawa F., Dalbah T., and Abdallah F, "Knowledge, Attitudes, and Beliefs about Epilepsy and their Predictors among University Students in Jordan", *Epilepsy & Behavior*, 41, pp. 238-243, 2014.

Otoom, M., Alshraideh, H., Almasaeid, H. M., Lo'pez-de-Ipina, D., and Bravo, J. E-Smart Real-Time Blood Sugar Administration. In *Ambient Assisted Living and Daily Activities* (pp. 409-412). Springer International Publishing, 2014.

Alshraideh, H., Otoom, M., Al-Araida A., Bawaneh H., and Bravo, J. A Web Based Cardiovascular Disease Detection System. In *Ubiquitous Computing and Ambient Intelligence. Personalisation and User Adapted Services* (pp. 243-250). Springer International Publishing, 2014.

Alshraideh H. and Khatatbeh E., "A Gaussian Process Control Chart for Monitoring Autocorrelated Process Data", submitted to *Journal of Quality Technology*, 2013.

Alshraideh H. and Smadi H., "Bayesian Spatio-Temporal Modeling and Prediction of Cancer Incidence in Jordan", submitted to *The Journal of Applied Statistics*, 2013.

Alshraideh H. and Del Castillo E., "Statistical Performance of Tests for Factor Effects on the Shape of Objects with Application in Manufacturing", *IIE Transactions*, 45(2), pp. 121-131, 2013.

Otoom, M., Alshraideh, H., Almasaeid, H. M., Lo'pez-de-Ipina, D., and Bravo, J. A Real-Time Insulin Injection System. In *Ambient Assisted Living and Active Aging* (pp. 120-127). Springer International Publishing, 2013.

Del Castillo E. Colosimo B. and Alshraideh H., "Bayesian Modeling and Optimization of Functional Responses Affected by Noise Factors", *Journal of Quality Technology*, 44(2), 2012.

Alshraideh H. and Del Castillo E., "Gaussian Process Modeling and Optimization of Profile Response Experiments", *Quality and Reliability Engineering International*, 30(4), pp:449-462, 2014.

Alshraideh H. and Runger G. C., "Process Monitoring Using Hidden Markov Models", *Quality and Reliability Engineering International*, 30(8), pp: 1379-1387, 2014.

CONFERENCE PRESENTATIONS

"A Web Based Cardiovascular Disease Detection System", 8th International Conference on Ubiquitous Computing & Ambient Intelligence (UCAmI 2014) , Belfast, UK, December 2-5/2014.

"E-Smart Real-Time Blood Sugar Administration", 6th International Work-conference on Ambient Assisted Living (IWAAL 2014), Belfast, UK, December 2-5/2014.

"A Gauge Repeatability-and-Reproducibility study for Vitamin B12 Measurements in Jordan", 7th Annual International Conference on Statistics, Athens, Greece, June 17-20/2013.

"Analysis and Robust Parameter Design of Geometric Shape Response Experiments", presentation at the College of Engineering Research Symposium, The Pennsylvania State University, 4/2010.

"Analysis and Robust Parameter Design of Geometric Shape Response Experiments", Poster presentation for the graduate school poster session. The Pennsylvania State University, 2/2010.

"Analysis and Robust Parameter Design of Geometric Shape Response Experiments", Fall Technical Conference, Birmingham, AL, 10/2010.

"Analysis and Robust Parameter Design of Geometric Shape Response Experiments", INFORMS, Austin, TX, 11/2010.

"Spatio-Temporal Modeling and Optimization of Profile Response Experiments", Quality and Productivity Research Conference, Roanoke, VA, 11/2010.

FUNDED PROJECTS

- Alshraideh H., and Aljarah M., *Screening of Ischemic Heart Disease Patients in Jordan Using Data Mining Algorithms.* Funded by: Deanship of Research, Jordan University of Science and Technology.
- Alshraideh H., and Abu-Helalah M., *Assessment of early detection process of breast cancer and colorectal cancer in Jordan.* Funded by: Deanship of Research, Jordan University of Science and Technology.
- Abu Helalh M., and Alshraideh H., *Epidemiology of thyroid disorders in Jordan.* Funded by: Scientific Research Support Fund, Jordanian Ministry of Higher Education.
- Abu Helalh M., Alshraideh H., Nawafleh A., *Assessment of Health Services offered at Primary Health Care Centers in Jordan.* Funded by: Jordanian Ministry of Health.

RELEVANT COURSES

- Spatial Models
- Advanced Data Mining
- Regression Analysis
- Statistical Computations
- Simulation
- Quality Control
- Operations Research
- Mathematical Statistics
- Linear Models I and II
- Design of Experiments
- Time Series Control
- Non Linear Programming

MEMBERSHIP

I am a member of the following associations:

- Jordanian Engineers Association

VOLUNTARY WORK

- Active reviewer for several prestigious journals including:
  - BMC: Medical Informatics and Decision Making
  - Computers in Biology
  - Journal of Medical Systems
- "Statistics for Life and Social Sciences Using R. A two days long voluntary workshop offered at the Academic Development Center at Jordan University of Science and Technology. January 31 2016.

WORKSHOPS

As a trainee:

- "Testing and Evaluation" at the Academic Development Center, Jordan University of Science and Technology. February, 1-2 2012.
- "E-Learning: Open Education Resources" at the Academic Development Center, Jordan University of Science and Technology. December, 15-16 2015.
- "Development of Curriculum and Study Plans According to ABET" at the Academic Development Center, Jordan University of Science and Technology. March, 11-16 2014.
- "Data Mining with Weka" an online course offered by the University of Waikato. Certificate issued on 20th October, 2013.
- "Statistics and R for the Life Sciences" an online course offered by HarvardX, an online learning initiative of Harvard University through edX. Certificate issued on February 20th, 2015.
- "Introduction to R Programming" an online course offered by HarvardX, an online learning initiative of Harvard University through edX. Certificate issued on September 28, 2015.
- "Introduction to Bioconductor" an online course offered by HarvardX, an online learning initiative of Harvard University through edX. Certificate issued on September 12, 2015.

As a trainer:

- "Software Tools for Industrial Engineers" offered at the Consulting Center, Jordan University of Science and Technology.
- "Statistical Data Analysis using Minitab" offered at the Consulting Center, Jordan University of Science and Technology.
- "Statistics for Quality Control" offered at CRISTAL company, Saudi Arabia.
- "Data Analysis and Technical Report Writing" offered at CRISTAL company, Saudi Arabia.
- "Statistics for Life and Social Sciences using R" offered at the Academic Development Center, Jordan University of Science and Technology.

COMPUTER SKILLS

I do master the following softwares:

- MATLAB
- MINITAB
- GAMS
- WEKA
- R software
- SPSS
- Microsoft (Word, Excel, and Power Point)
- LATEX
- TORA
- QM-for windows

Other softwares that have been used include:

- STATA
- SAS
- DESIGN EXPERT

REFERENCES

Prof. *Enrique Del Castillo*
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Prof. *George Runger*
Industrial Engineering Department, Arizona State University, Tempe AZ, USA. (001) 480-965-3193. E-mail: George.Runger@asu.edu

Prof. *Jay Chandra*
Industrial Engineering Department, The Pennsylvania State University, State college PA, USA. (001) 814- 863-4745. E-mail: mjc3@psu.edu