



## Resume & References

### **Raid Al-Aomar, PhD**

Professor of Industrial Engineering  
Department of Industrial Engineering  
School of Applied Technical Sciences  
German Jordanian University  
Amman, Jordan

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#### **Links:**

<https://www.linkedin.com/in/raid-al-aomar-b1698325?trk=hp-identity-name>

[https://www.researchgate.net/profile/Raid\\_Al-Aomar](https://www.researchgate.net/profile/Raid_Al-Aomar)

<https://scholar.google.com/citations?user=ZhKnMfwAAAAJ&hl=en&oi=ao>

#### **Education:**

**Ph.D.** Industrial Engineering/ Operations Research:

Wayne State Univ., USA, 2000

*Dissertation:* A Process-oriented System Design Methodology with Genetic Algorithm Search and Simulation-based Evaluation.

**M.Sc.** Industrial Engineering/ Manufacturing Systems:

Wayne State Univ., USA, 1996

**B.Sc.** Industrial Engineering:

Univ. of Jordan, Amman, 1993

#### **Research & Teaching Interests:**

- Operations Research & Management
- Simulation Modeling & Simulation-based Optimization
- Lean Six Sigma Systems
- Production Controls and Economics
- Logistics & Supply Chain Management
- Green Technology & Sustainable Engineering
- Risk Management & Financial Analysis
- Quality Control, Assurance, and TQM systems
- Project Management, Construction and Contract Management

## Highlights:

- Awards and Appreciations:
  - Awarded ADU distinguished **Research Award** for 2013.
  - Awarded **ADU distinguished faculty award** for 2012.
  - Awarded College of Engineering **distinguished research award** for academic year 2011/2012.
  - Awarded **King-Hussein Prestigious Medal for Academic Excellence** for 2004.
  - Awarded Jordan Ministry of Higher Education & Research **award for best applied engineering research 2004**.
  
- Director of **Master of Engineering Management (MEM)** program at Abu Dhabi University for 8 years.
- **Visiting associate professor** of IE at University of Sharjah, 2008-2010.
- **Chairman** of Industrial Engineering (IE) at Jordan University of Science & Technology (JUST) from 2006 to 2008.
- JUST university **Quality Assurance Liaison Officer** and Committee director for developing IE course plan and **ABET accreditation**.
- Adjunct faculty at Industrial Manufacturing and System Engineering (IMSE) at **University of Michigan-Dearborn**.
- Adjunct faculty at Management Information System (MIS) of the business school at **Wayne State Univ**.
- Visiting professor for developing and teaching Operations Research applications in Procurement and Logistics at **Vaxjo University in Sweden**.
- Expert in teaching Operations Research and Mgt., Supply Chain Mgt., Statistics, Simulation Modeling, Lean Systems, and Six Sigma.
- Author of more than **50 refereed journal and conference papers** in the field of Industrial Engineering.
- **Author:** "Simulation-based Lean Six Sigma and Design for Six Sigma". **John Wiley** 2006.
- **Reviewer** for several IE and Engineering Management journals and conferences.
- **Local and International consultant** and professional trainer.
- More than 10 years of **professional and industry experience** in Jordan and USA with Ford Motor Company in Dearborn, Michigan.
- Facilitated many **local and regional workshops** on project management, Six Sigma, Production planning, inventory control, and data analysis.
- **Member** IIE, SME, and JAE.
- Listed in: **Madison Who-is-who** and in **Who-is-who in Engineering**
- **Citizenship:** USA and Jordan.

## 1. Academic Experience

### A- Education:

**Ph.D.** Industrial Engineering/OR: Wayne State Univ., USA, 2000  
**Dissertation:** A Process-oriented System Design Methodology with Genetic Algorithm Search and Simulation-based Evaluation.  
**M.Sc.** Manufacturing Systems Engineering, Wayne State Univ., USA, 1996  
**B.Sc.** Industrial Engineering, Univ. of Jordan, Amman, 1993

### B- Academic positions & ranks:

Professor of Industrial Engineering, Department of Industrial Engineering,  
German Jordanian University, Jordan. 2018-present

Professor of Industrial Engineering & Director of Engineering Management:  
College of Engineering, Abu Dhabi University, UAE. 2013-2018

Associate Professor of Industrial Engineering: College of Engineering, Abu  
Dhabi University, UAE. 2010-2013

Visiting Academic at the department of Industrial Engineering & Management:  
University of Sharjah, UAE

Teaching Production Planning, Simulation, Work Measurements,  
Ergonomics, Supply Chain Management. 2008-2010

Adjunct faculty in Civil Engineering Department: American University of  
Sharjah, teaching Constriction Management, Contract Management,  
Estimation, Scheduling, and Control. 2008-2010

Associate Professor and Chairman of Industrial Engineering: Jordan  
University of Science & Technology, Jordan. 2006-2008

Teaching and administrative work including ABET accreditation.

Assistant Professor of Industrial Engineering: Jordan University of Science &  
Technology, Jordan 2002-2006

Teaching Operations research, Operations Management, Simulation,  
Work Measurements, and Lean Manufacturing.

Adjunct Faculty: Industrial & Manufacturing Systems Eng. (IMSE) Dept.  
University of Michigan-Dearborn, USA. 2006-2007

Teaching IMSE 317 Probability and Statistics for Engineers.

Adjunct Faculty: Industrial & Manufacturing Eng. (IME). Wayne State  
University-Detroit, USA. Teaching IME 850 Sustainable Mfg. 2004-2005

Faculty Member: University of Phoenix, Detroit. 2000-2002  
Teaching IT basics, Software Engineering, and Programming Concepts.

Graduate Teaching Assistant: Industrial Eng. Department, Wayne State  
University, USA. 1995-1997

## C- Teaching Responsibilities

### List of developed and taught courses:

ID/Number	Name/Topic	Level	Type
<b>Abu Dhabi University</b>			
CIV 402	Engineering Ethics	Bachelor	Core
MEM 504	Quality Engineering	Master	Core
MEM 501	Project Management	Master	Core
MEM 511	Operations & Supply Chains	Master	Core
MEM 502	Engineering Economics	Master	Core
MEM510	Innovation & Entrepreneurship	Master	Elective
<b>University of Sharjah</b>			
IEM341	Work Improvement methods	Bachelor	Core
IEM433	Supply Chain Methods	Bachelor	Core
IEM324	Stochastic Systems Simulation	Bachelor	Core
IEM431	Production Systems	Bachelor	Core
<b>American University of Sharjah</b>			
NGN111	Intro to Statistical Analysis	Bachelor	Core
<b>Jordan University of Science &amp; Technology</b>			
IE 750	Advanced Operations Research	Master	Core
IE 747	Lean & Agile Manufacturing	Master	Elective
IE 541	Production Planning & Inventory	Bachelor	Core
IE 442	Operations Research II	Bachelor	Core
IE 341	Engineering Economy	Bachelor	Core
IE 443	Work Measurement & Analysis	Bachelor	Core
IE 542	Simulation	Bachelor	Core
IE 543	Facilities Planning	Bachelor	Elective
IE 460	Industrial Safety	Bachelor	Elective
<b>University of Michigan-Dearborn</b>			
IMSE 317	Prob. and Stat for Engineers	Bachelor	Core
<b>Wayne State University</b>			
IME 850	Sustainable Manufacturing	Master	Elective

### Sample of IE Labs:

ID/Number	Name/Topic	Level	Type
IE 447	Human Factors (Ergonomics)	Bachelor	Core
IEM 341	Simulation Lab	Bachelor	Core
IE 356	Materials Engineering Lab	Bachelor	Core

**D- Supervision of PhD and Master Thesis:**

- i. **External examiner:** PhD Thesis of Mohammad Hamdan, College of Education, Oakland University, Michigan, USA.
- ii. **External examiner:** PhD Thesis of Co-supervisor Dr. Nishat Faisal, Industrial Engineering, Indian University.
- iii. **External Examiner:** Master thesis of Sadeque Hamdan. Green Supplier selection and order allocation. Industrial Engineering, University of Sharjah, UAE.
- iv. **Adopting Lean Manufacturing Techniques in Sewing Industry.** MS Thesis of Mohammed Obaidat.
- v. **Safety Function Deployment: An approach and a case study.** MS Thesis of Hazem Momani.
- vi. **Operation and Maintenance Procedure of Steam Generator.** MS Thesis of Ehab Nasrawi.
- vii. **Simulation-based Supply Management optimization with Simulated Annealing.** MS Thesis of Anas Manna.

**E- Measures of Teaching Effectiveness**

**- From Students:**

Over the last 10 years, I had the chance to teach students full time and as an adjunct faculty in several universities in Jordan, UAE, and USA. My average students' evaluation score was about 90% in total and at ADU, my average was around 4.5/5.0. The following is a summary of my teaching contributions and students' evaluation for the last two academic years at ADU:

<b>Undergraduate</b>	
Teaching CIV402 AD Spring 2010/2011 <b>SET = 4.3/5.0</b>	<ul style="list-style-type: none"> <li>• Developing the material and teaching CIV402 lectures and presentations</li> </ul>
<b>Graduate (Masters, Ph.D.)</b>	
Teaching MEM504 AD Fall 2010/2011 <b>SET = 4.3/5.0 (average for the term)</b>	<ul style="list-style-type: none"> <li>• Development and teaching of new course</li> </ul>
Teaching MEM504 AA Spring 2010/2011 <b>SET = 3.4/5.0</b>	<ul style="list-style-type: none"> <li>• Lectures, projects, and group discussions</li> </ul>
Teaching MEM501 AD Spring 2010/2011 <b>SET = 4.1/5.0</b>	<ul style="list-style-type: none"> <li>• Development and teaching of new course</li> </ul>
Teaching MEM501 AA Spring 2010/2011 <b>SET = 4.6/5.0</b>	<ul style="list-style-type: none"> <li>• Development and teaching of new course</li> </ul>
<b>Spring 2010/2011 Average SET = 4.1/5.0</b>	

Teaching MEM504 AD Fall 2011/2012 <b>SET = 4.7/5.0</b>	<ul style="list-style-type: none"> <li>Lectures, projects, and group discussions</li> </ul>
Teaching MEM511 AD Fall 2011/2012 <b>SET = 4.7/5.0</b>	<ul style="list-style-type: none"> <li>Development and teaching of new course</li> </ul>
<b>Fall 2011/2012 Average SET = 4.7/5.0</b>	
Teaching MEM510 AA/AD Winter 2011/2012 <b>SET = 4.7/5.0 (average for the term)</b>	<ul style="list-style-type: none"> <li>Development and teaching of new course</li> </ul>
Teaching MEM504 AA Spring 2011/2012 <b>SET = 4.7/5.0</b>	<ul style="list-style-type: none"> <li>Lectures, projects, and group discussions</li> </ul>
Teaching MEM501 AA Spring 2011/2012 <b>SET = 4.7/5.0</b>	<ul style="list-style-type: none"> <li>Lectures, projects, and group discussions</li> </ul>
Teaching MEM511 Spring 2011/2012 <b>AD SET = 4.7/5.0 and AA 3.6/5.0 (VC)</b>	<ul style="list-style-type: none"> <li>Lectures, projects, and group discussions</li> </ul>
<b>Spring 2011/2012 Averages SET = 4.5/5.0</b>	

**- JUST courses:**

<b>Course Name &amp; Number</b>	<b>Times taught</b>	<b>Average Enrolment</b>	<b>Average Score</b>
<b>B.Sc Courses:</b>			
IE 442 Operations Research II	8	35	87.8 %
IE 541 Production Planning & Inventory Control	6	35	88.7 %
IE 341 Engineering Economy	2	40	93.8 %
IE 443 Work Measurement & Analysis	2	40	89.3 %
IE 542 Simulation	1	25	82.4 %
IE 543 Facilities Planning	1	25	88.4 %
IE 460 Industrial Safety	1	25	92.6 %
<b>M.Sc Courses:</b>			
IE 750 Advanced OR	3	10	93.3 %
IE 747 Lean & Agile Manufacturing	2	10	87.1 %

**From Colleagues and Others Academic Institutions:**

- Invited to give seminars on OR applications to procurement and logistics by Vaxjo University in Sweden (September, 2005)
- Mentoring University of Michigan – Dearborn online program in Engineering Management
- Invited for teaching probability & statistics in the department of Industrial & Manufacturing System Engineering (IMSE) at the University of Michigan – Dearborn, Summer 2006 and 2007.
- Invited to teach CAD/CAM at Yarmouk University (2004).

## 2- PUBLICATIONS

### **A- Refereed Journal Publications:**

1. Al-Aomar, R. and Dweekat, A. (2021). A simulation-based performance assessment of IoT-enabled supply chain of perishable dairy products. Accepted for publication in **European Journal of Industrial Engineering**.
2. Al-Aomar, R. and Alshraideh, H. (2019). A service-oriented material management model with green options. **Journal of Cleaner Production**, 236, 117557.
3. Hussain, M., Al-Aomar, R. and Melhem, H. (2019). Assessment of lean-green practices on the sustainable performance of hotel supply chains. **International Journal of Contemporary Hospitality Management**, 31(6), pp. 2448-2467
4. Al-Aomar, R. and Chaudhry, S. (2018). Simulation-based Six Sigma Value Function for System-level Performance Assessment and Improvement. **International Journal of Productivity and Performance Management**, 67 (1), pp. 66-84.
5. Al-Aomar, R. and Hussain, M. (2018). Exploration and Prioritization of Lean Techniques in a Hotel Supply Chain. **International Journal of Lean Six Sigma**. 10(1), pp. 375-396.
6. Al-Aomar, R. and Hussain, M. (2018). An Assessment of Adopting Lean Techniques in the Construct of Hotel Supply Chain. **Tourism Management**, 69, pp. 553-565.
7. Hussain, M. and Al-Aomar, R. (2017). A model for assessing the impact of sustainable supplier selection on the performance of service supply chains. **International Journal of Sustainable Engineering**, pp. 1-16.
8. Al-Aomar, R. and Hussain, M. (2017). An Assessment of Green Practices in a Hotel Supply Chain: A Study of UAE Hotels. **Journal of Hospitality & Tourism Management**, 32, pp. 71-81.
9. Al-Aomar, R., Aamir Al-Saberi, Mohammed Al-Ameri, Ahmad Al-Wahedi and Kelechukwu, Eke (2017). Six Sigma Application to Food and Beverage Testing Services. **Journal of Engineering and Applied Sciences**, 12(4), pp. 819-824.
10. Ewijk, A.V. and Al-Aomar, R. (2016). Inspiration, self-awareness and entrepreneurial intentions: a mixed-methods case study of postgraduate engineering students in the UAE. **Journal of Entrepreneurship Education (JEE)**, 19(1), pp. 103-126.
11. Hussain, M., Khan, M., Al-Aomar, R. (2016). A framework for supply chain sustainability in service industry with confirmatory factor analysis. **Renewable & Sustainable Energy Reviews**, Vol. 55, pp. 1301-1312.
12. Obeidat, M.S., Al-Aomar, R., and Pei, Z.J. (2014). Lean Manufacturing Implementation in Sewing Industry. **Journal of Enterprise Transformation**, 4(2), pp. 151-171, doi: 10.1080/19488289.2014.890980.
13. Al-Aomar, R., Al-Dhanhani, J., Al-Ali, S. (2013). An enhanced QFD approach for improving water tanks sustainability at a local water distributor. **Journal of Industrial Engineering & Management**, 2(113), doi:10.4172/2169-0316.1000113.
14. Alrefaei, M., Diabat, A., Alawneh, A., Al-Aomar, R., & Faisal, M. (2013). Simulated Annealing for Multi Objective Stochastic Optimization. **International**

- Journal of Science and Applied Information Technology (IJSAIT)**, 2(2), pp. 18-21.
15. Al-Aomar, R. (2012). Analysis of Lean Construction Practices in Abu Dhabi Construction Industry. **Lean Construction Journal**. pp. 105-121.
  16. Al-Aomar, R. (2012). A lean Construction Framework with Six Sigma Rating. **International Journal of Lean Six Sigma**. 3(4), pp. 299-314.
  17. Al-Joburi, K., Al-Aomar, R., Bahri, M.E. (2012). Analyzing the impact of negative cash flow on construction performance in the Dubai area. **ASCE Journal of Management in Engineering**. 28(4), pp. 382-390.
  18. Al-Aomar, R., El-Khasawneh B., Obaidat, S. (2012). Incorporating time standards into generative CAPP: A construction steel case study. **Journal of Manufacturing Technology Management**. 24(1), pp. 95 – 112.
  19. Al-Aomar, R. and Awad, M. (2012). Dynamic Process Modeling of Patients' No-show Rates and Overbooking Strategies in Healthcare Clinics. **Int'l Journal of Engineering Management and Economics**. 3(1&2), pp. 3-21.
  20. Al-Aomar, R. and Al-Meer, H. (2012). Quality Function Deployment for Service: A Case Study of Enhancing the Planning Statement of a Utility Company. **International Journal of Advanced Trends in Computer Science and Engineering**, 1(4), pp. 113-120.
  21. Al-Aomar, R. (2011). Handling Multi-Lean Measures with Simulation and Simulated Annealing. **Journal of the Franklin Institute**. 348 (7), pp. 1506-1522.
  22. Alsyouf, I., Al-Aomar, R., Al-Hamed, H. and Xiaojin, Q. (2011). A model for assessing the cost effectiveness of lean tools. **European Journal of Industrial Engineering**. 5(2), pp. 170-197.
  23. Obeidat M. and Al-Aomar, R. (2011). Adopting lean techniques in textile industry: A Sewing plant case study. **AHU Journal of Engineering & Applied Sciences**, 4(1), pp. 33-53.
  24. Al-Aomar, R. (2010). An AHP-Entropy method for deriving quantitative and qualitative criteria weights. **International Journal of Industrial Engineering: Theory, Applications, & Practice**. 17(1), 12-24.
  25. Bataineh, O. and Al-Aomar, R. (2010). *Simulation-optimization of public office operations*. **Jordanian Journal of Mechanical and Industrial Engineering**, 4(3), pp. 346-351.
  26. Al-Aomar, R. and Fikri Dweiri (2008). A customer-oriented decision agent for product selection in web-based services. **International Journal of Information Technology & Decision Making**. 7(1), 35-52.
  27. Al-Aomar, R. (2007). Analysis of non-stop traffic at isolated intersections with the means of Discrete Event Simulation. **International journal of Simulation Modeling**. 6(4), pp. 230-241.
  28. Al-Aomar, R. (2006). Designing machine operating strategy with simulated annealing and Monte Carlo simulation. **Intl. Journal of the Franklin Institute**, 343(4-5), pp. 372-388.
  29. Al-Aomar, R. and Ala'a Al-Okaily (2006). GA-based parameter design for single machine turning process with high-volume production. **International Journal of Computers & Industrial Engineering**, 50(3), pp. 317-337.
  30. Al-Aomar, R. (2006). A simulation-based DFSS for a lean service system. **International Journal of Product Development**, 3(3/4), pp. 349-368.



31. Al-Aomar, R. (2006). Capacity-constrained scheduling of multiple vehicle programs in pilot plants. *International Journal of Production Research*, 44(13), pp. 2573-2604.
32. Al-Aomar, R. and M. Youssef (2006). Achieving Six Sigma rating in a system simulation model. *International Journal of Six Sigma & Competitive Advantage*, 2(2), pp. 190-206.
33. Al-Aomar, R. (2006). Incorporating robustness into Genetic Algorithm search of stochastic simulation outputs. *Simulation Practice & Theory*, 14(3), pp. 201-223.
34. Al-Aomar, R. (2003). A simulation methodology for determining system and process-level manufacturing performance metrics. *SAE 2002 Transactions Journal of Materials & Manufacturing*, 111(5), pp. 1043-1050.
35. Al-Aomar, R. and M. Philips (2002). Determining FPS Measurables in Vehicle's Final Assembly Operations with DES. *Ford Technical Journal*, 5(1).

Latest Submitted Journal Publications:

1. Analysis of lean and green sustainability practices in the supply chain of AD hotels Industry. To be submitted to the **Journal of Cleaner Production**.
2. Applying Six Sigma to improve the food and beverages testing services. Submitted to **Advanced Science Letters**.

Work in Progress:

3. **Modeling and optimizing the supply chain of a large steel producer**. This paper is derived from the ongoing project supported by QNRF.
4. **Analysis of green construction practices in Abu Dhabi construction industry**. This paper will be based on the results of research seed project supported by ADU.

**B- Refereed Conference Publications:**

1. Al-Aomar, R., Alshwailat, A., Alfarraj, A., and Odeh, T. (2020). Simulation-Aided Lean Application to an Automated Production Line. Proceedings of the **5<sup>th</sup> NA International Conference on Industrial Engineering and Operations Management (IEOM)**, Detroit, Michigan, USA, pp. 1641-1652.
2. Al-Aomar, R. and Hussain, M. (2020). Circular Supply Chains: A Comparative Study of Structure and Practices. **1st International Conference on Mechanical, Aeronautical, and Industrial Engineering Technologies (MechaniTek 2020)**, Irbid, Jordan, 1(1), pp. 61-68.
3. Al-Aomar, R. (2019). Sustainability Function Deployment: System-level Design for Sustainability. **2019 IEEE International Systems Conference (SysCon)**, Florida, USA, pp. 1-6.
4. Al-Aomar, R., Al-Hamed, A., Khalifeh, R., and Hasan, F. (2018). Lean Six Sigma Application to Improve a Water Bottling Process. **IEEE Explore**, Proceedings of the **2018 IEEE International Conference on Technology**

- Management, Operations and Decisions (ICTMOD)**, Marrakesh, Morocco, pp. 200-205.
5. Al-Aomar, R. and Hussain, M. (2017). A Cost-based Material Management Model for a Sustainable Hotel Supply Chain. **Proceedings of the 2017 Institute of Industrial and Systems Engineering Conference (IISE 2017)**, K. Coperich, E. Cudney, H. Nembhard, eds, Pittsburgh, USA, pp. 374-379.
  6. Dweekat, A. and Al-Aomar, R. (2018). 'An IoT-Enabled Framework for Dynamic Supply Chain Performance Management. Accepted for publication in the **IEEE conference (TEMSCON 2018)**. Chicago, US.
  7. Al-Aomar, R., Al-Mansouri, A., and Al-Laban, M. (2017). Reducing the Interruptions of Power Distribution: A Six Sigma Case Study. **IEEE Explore**, Proceedings of the **2nd International Conference on Knowledge Engineering and Application (ICKEA 2017)**. London, UK, pp. 226-230.
  8. Al-Aomar, R., Aljeneibi, S., and Almazroui, S. (2016). Reducing Operational Downtime in Service Processes: A Six Sigma Case Study. Proceedings of the **International Conference on Industrial Engineering, Management Science and Application (ICIMSA 2016)**. **IEEE Explore**, pp. 1-5.
  9. Al-Aomar, R. and Hussain, M. (2015). Waste analysis and categorization in the construct of hotels supply chain. Proceedings of the **International Conference on Energy, Environment, and Material Science**, Agios Nikolaos, Crete, Greece, pp. 11-15.
  10. Al-Aomar, R. and Hussain, M. (2015). An assessment plan for lean and green sustainability practices in the supply chain of hotels. 'Sustainable Development' Conference Proceedings, **WIT Transactions on the Built Environment**, Vol. 168, pp. 41-50.
  11. Al-Aomar R. and Shaban R. (2015). Promoting Technology Innovation in Abu Dhabi through Technopreneur Program. In Proceedings of the **Innovation Arabia 8 Annual Conference: Business & Quality Management**, Dubai, UAE, pp. 361-369.
  12. Al-Aomar R. and Al-Bakri G. (2014). A system approach for developing a systems engineering postgraduate program. In Proceedings of the **1<sup>st</sup> International Conference on Industrial, Systems, & Manufacturing Engineering**, Amman, Jordan.
  13. Al-Aomar R. and Alrefaei M. (2014). Simulation-based Optimization of Multiple Supply Chain KPIs. In Proceedings of the **Annual Conference on Engineering & Technology**, Osaka, Japan.
  14. Al-Aomar R., Alrefaei M., Diabat A., Faisal M., and Alawneh A. (2014). Using Simulation to Assess the Performance of a Large-Scale Steel Producer. In Proceedings of the **2014 International Conference on Mathematical Methods, Mathematical Models and Simulation in Science and Engineering**, Interlaken, Switzerland, pp. 156-160.
  15. Al-Kuwaity, Y. and Al-Aomar, R. (2014). Improving hospital services with Quality Function Deployment. Proceedings of the **7<sup>th</sup> Quality Conference in the Middle East**, pp. 328-339, Dubai, UAE.
  16. Al-Aomar, R. (2013). QFD application in the initial accreditation of an engineering program. Proceedings of **the 2013 IEEE Global Engineering Education Conference (EDUCON 2013)**, pp. 38-43. Berlin, Germany.
  17. Faisal, M., Alrefaei, M., Alawneh, A., Al-Aomar, R., & Diabat, A. (2013). Supply Chain Performance Improvement by Integrating Sustainability in Supplier

- Selection for a Steel Producer. **3<sup>rd</sup> International Conference on Production & Industrial Engineering (CPIE-2013)**, pp. 586-591.
18. Diabat A., Al-Aomar R., Alrefaei M., Alawneh A. and Faisal M. (2013). A Framework for Optimizing the Supply Chain Performance of a Steel Producer. In Proceedings of the **15<sup>th</sup> International Conference on Enterprise Information Systems**, pp. 554-562.
  19. Al-Aomar, R. and Weriakat, D. (2012). A Framework for a Green and Lean Supply Chain: A Construction Project Application. Proceedings of the **2012 International Conference on Industrial Engineering & Operations Management (IEOM 2012)**, pp. 289-299. Istanbul, Turkey.
  20. Obeidat, M.S., Pie, Z.J., and Al-Aomar, R. (2012). Implementing Lean Manufacturing in Sewing Industry. Proceedings of the **IIE Industrial & System Engineering Research Conference (ISERC 2012)**, Florida, USA.
  21. Al-Aomar, R. (2012). A Lean Construction Framework with Six Sigma Rating: A Case Study at Abu Dhabi Construction Industry. Proceedings of the **4<sup>th</sup> International Conference on Lean Six Sigma**, pp. 6-20. Glasgow, UK.
  22. Al-Aomar, R. (2012). A Six Sigma Value Function for Improving Multiple Quality Attributes. Proceedings of the **6<sup>th</sup> Quality Conference in the Middle East (Best Paper Award)**, pp. 328-339, Dubai, UAE.
  23. Al-Meer, H. and Al-Aomar, R. (2012). Applying QFD to enhance the Planning Statement of a Utility Company. Proceedings of the **1<sup>st</sup> ADU Research Conference**, Abu Dhabi, UAE.
  24. Al-Aomar, R. (2011). Applying 5S Lean Technology: An Infrastructure for Continuous Process Improvement. Proceedings of the **International Conference of Industrial & Information Engineering**, WASET 2011, pp. 2014-2019. Venice, Italy.
  25. Al-Aomar, R. and Almahzumi, M. (2011). A Six Sigma Approach for Reducing Non-Sellable Man-Hour Costs. Proceedings of the **IIE Engineering & Lean Six Sigma Conference (ELSS 2011)**, Atlanta, USA.
  26. Al-Aomar, R. and Adnan, R. (2010). Simulation-based Demand Management with non-instantaneous inventory replenishment. Proceedings of the **22<sup>nd</sup> European Modeling and Simulation Symposium (EMSS 2010)**, pp. 395-401. Fes, Morocco.
  27. Al-Aomar, R. (2010). A Quantifiable Quality Assurance System for Engineering Courses. Proceedings of the **5<sup>th</sup> International Forum on Engineering Education (IFEE 2010)**, University of Sharjah, UAE.
  28. Al-Aomar, R. and Awad, M. (2010). Dynamic Process Modeling of Overbooking Strategy in Healthcare Clinics. Proceedings of the **2<sup>nd</sup> International Conference on Engineering Systems Management & Its Applications (ICESMA 2010)**, American University of Sharjah, UAE.
  29. Al-Aomar, R. and Momani, A. (2009). A Dynamic Process Modeling of Warehouse Operations. Proceedings of the **21<sup>st</sup> European Modeling and Simulation Symposium (EMSS 2009)**, pp. 54-59. Spain.
  30. Al-Aomar, R. (2007). Simulation-based Lean Six Sigma: A Platform for Boosting Production System Effectiveness. **The 37<sup>th</sup> International Conference of Computers and Industrial Engineering**. pp 1803-1813, Alexandria, Egypt.
  31. Dweiri, F., Al-Aomar, R., Al-Momani, H. (2007). Safety Function Deployment: An Approach for Developing Safety Product and Safety Management System.

- The 37<sup>th</sup> International Conference of Computers and Industrial Engineering.** pp 1714-1725, Alexandria, Egypt.
32. Al-Aomar, R., Al-Momani, K., and Nasrawi, E. (2007). Improving the Efficiency of a Steam-Generators System through an Effective Operation and Maintenance Plan. **International conference on Maintenance Management Systems**, Amman-Jordan.
  33. Al-Aomar, R. and Fikri Dweiri (2005). A Customer-based Multi-Criteria Decision Support System for Product Selection in Online Orders. **The 35<sup>th</sup> International Conference of Computers & Industrial Engineering**, Istanbul, Turkey.
  34. Al-Aomar, R. (2003). A Simulation-supported ERP: An enterprise-wide training model. **EISTA'03 Conference**, Orlando, Florida, USA.
  35. Al-Aomar, R. (2002). A robust multi-criteria simulation-based optimization method. Proceedings of **Winter Simulation Conference**, San Diego, CA, USA.
  36. Al-Aomar, R. (2000). Model-Mix Analyses with DES. Proceedings of **Winter Simulation Conference**, Orlando, Florida, USA.
  37. Al-Aomar, R. A. 2000. GA-SM: An Interactive Simulation Optimization Software Tool. *Proceedings of the 2nd Middle East Symposium on Simulation and Modeling*, Amman-Jordan.
  38. Al-Aomar, R. and Dan Cook (1998). Modeling at the Machine Control Level with DES. Proceedings of **Winter Simulation Conference**, Washington D. C., USA.

#### **C- Books:**

- Simulation-based Lean Six Sigma and Design for Six Sigma, **John Wiley**, New York, 2006.
- Process Simulation using WITNESS, **John Wiley**, New York, 2015.

#### **D- Book Chapters:**

- Raid Al-Aomar (2010). Simulating Service Systems, Discrete Event Simulations, Aitor Goti (Ed.), ISBN: 978-953-307-115-2, Sciyo.
- Raid Al-Aomar (2012). A Quantifiable Quality Assurance System for Engineering Courses, Engineering Education in the 21<sup>st</sup> Century, edited book of IFEE.

#### **E- IE Magazine:**

Al-Aomar, Raid (2007). **The Prestigious Three: Simulation, Lean, & Six Sigma** for business process management. December Issue of IE Magazine. **IIE 2007**.

## Funded Research Projects

No.	Title of the project	Granted by	Amount
1	Developing a mathematical optimization model for an effective service supply chain	Abu Dhabi University 2016	AED20,000
2	Analyzing Lean Practices at the Supply Chain of Hotel Industry	Abu Dhabi University 2015	AED20,000
3	Supply Chain optimization for a Steel Producer	Qatar National Research Fund (QNRF) 5 <sup>th</sup> cycle	\$300,000
4	Analyzing Lean Construction Practices at Abu Dhabi Industry	Abu Dhabi University 2011	AED50,000
5	Developing interactive GA-SM software tool for multi-criteria optimization (2002)	Jordan University of Science and Technology	1,200 JD
6	Work Analysis & Efficiency Improvement at Steel Building Company (2005)	Jordan Higher Council for Science & Technology	5,000 JD
7	Preparing Irbid Specialty Hospital for ISO 9001:2000 (2004)	EJADA- European Program	5,000 JD
8	Production Process Streamlining and Quality Assurance at Maani Furniture Company (2006)	Higher Council for Science & Technology	5,000 JD
9	Process Definition and Work Flow Analysis at Maani Prefab Company	Faculty For Factory Program (2007)	3,000 JD
10	Quality of Technical Education in Jordan- (Sweden & Spain) (2006)	TEMPUS- European Program	140,000 EU
11	Production planning at Ford supplier (DANA corp. CANADA)	FORD, MI, USA (2003)	\$10,000
12	Pilot plant capacity planning	FORD, MI, USA (2004)	\$10,000
13	Supplier capacity planning	FORD, MI, USA (2005)	\$10,000
14	Simulating future car programs	FORD, MI, USA (2006)	\$10,000

### **3- Professional/Industry Experience:**

I base my teaching and research on a well-established professional and industry experience that extends over 10 years in Jordan and USA. This is a summary of my professional experience:

#### ***A- Industry Experience:***

##### *Consultant on Simulation and Lean Six Sigma Systems*

Production Modeling Corporation, Dearborn, MI, USA. 2002-2008

(Summer time consultation projects in the industry)

Part time simulation expert for Ford projects and international business development for scheduling, simulation, and Lean Six Sigma.

##### *Simulation Specialist (contract):*

Ford Motor Company- Vehicle Operations, Dearborn, MI, USA, 1999-2002.

Using State-of-the-art simulation and statistical methods for production optimization studies to apply Ford production Systems at various Ford facilities and vehicle programs (more than 20 projects completed)).

##### *Lead Design Eng (contract):*

General Motors (GM)- Metal Fabrication Division, USA, 1998-1999

Modeling and analyzing body shop and subassemblies at various GM facilities and programs (more than 10 projects completed).

##### *Senior Project Engineer:*

Classic Advances Developed Systems, Inc. Troy, MI, USA 1996-1998

Leading and training Simulation Analysts on conducting simulation studies, Developing and analyzing Discrete Event Simulation projects for Automotive Industry (GM and Suppliers, more than 50 projects).

##### *Production Engineer:*

Jordan Petroleum Refinery, Zerka-Jordan, 1993-1994.

Engineering and managing production operations at LPG cylinders production facility at JPR. This includes Maintenance Planning and running daily operations.

#### ***B- Workshops and Seminars:***

I attend and participate in teaching related workshops, roundtables and inquiry seminars presented by the university and at national professional meetings. In the recent past, I have attended workshops on critical thinking, methods for teaching large classes, teaching working students, educational technology, class room management, learning styles, learning strategies, and computer-assisted learning. I participate in professional organizations in the field of Industrial Engineering, general engineering, and education. I organize a yearly open industry and alumni day to strengthen industry interaction and

incorporate industry needs in my teaching style. I also keep continuous contact with industry and business professionals through facilitating technical seminars and training workshops nationally and internationally.

**Sample training workshops that I instructed for industry:**

<b>Workshop</b>	<b>Company/Client</b>	<b>Duration</b>
Process Management	Al-Ain, UAE	3 Days
Warehouse & Inventory Management	Jeddah, KSA	5 Days
Data Mining & Analysis	Riyadh, KSA	5 Days
Basics of Project Management	Intech, Jordan	5 Days
Six Sigma Green Belt Program	ProServ, Jordan	5 Days
Material Requirement Planning (MRP)	Intech, Bahrain	5 Days
Basic Economy & Finance	ERC Jordan	4 Days
Risk Management	CERT, UAE	5 Days
Project Management	CERT, UAE	5 Days
Statistical Data Analysis	Intech, UAE	4 Days
Inventory Control	JUST CSC	3 Days
Total Quality Management (TQM)	Industrial Estate	5 Days
Decision Analysis	Jordan Petroleum	4 Days
Time Management & Effectiveness	Industrial Estate	5 Days
Maintenance Planning & Management	Industrial Estate	4-Days

**References:**

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