

***Curriculum Vitae***  
**Dr. KHALDOUN K. TAHBOUB**  
**Ph.D., Industrial Engineering**  
***Certified EFQM Assessor***

**Address:** Department of Logistics  
School of Management and Logistics Sciences  
German Jordanian University  
Madaba, Jordan  
Mobile: (962)77777-4664  
Tel (off.): (9626)429-4444 Ext.  
Fax: (9626)  
email: [khaldoun.tahboub@gju.edu.jo](mailto:khaldoun.tahboub@gju.edu.jo); [kktahboub@gmail.com](mailto:kktahboub@gmail.com)

**Nationality:** Jordanian  
**Date of Birth:** December 15, 1959

**Education:**

- Ph.D.: Industrial Engineering, June 1992.  
Lehigh University, Bethlehem, Pennsylvania, USA.
- M.Sc.: Systems Engineering, June 1983.  
King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia.
- B.Sc.: Systems Engineering, June 1981.  
King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia.

**Work Experience:**

- Associate Professor, Department of Logistics, School of Management and Logistics Sciences, German Jordanian University, Madaba, Jordan, September 2016 – present.
- Graduate Advisor, Maintenance Engineering and Quality Management Master Program, Industrial Engineering Department, The University of Jordan, September 2013-September 2016.
- Associate Professor, Mechanical and Industrial Engineering Department, College of Engineering, Applied Science University, Amman, Jordan, September 2010 – September 2012. *On sabbatical leave from The University of Jordan.*
- Chairman, Industrial Engineering Department, University of Jordan, Amman, Jordan, *December 2009 – September 2010.*
- Adjunct Faculty member, German-Jordanian University, teaching courses in industrial engineering, 2005 - 2012.
- Chairman, Industrial Engineering Department, University of Jordan, Amman, Jordan, *September 2004 – Sep. 2005, September 2002 – Sep. 2003, and September 1996 – Sep. 1997.*
- Director, Computer Integrated Manufacturing (CIM) Lab, 1993 – September 2016.
- Assistant Professor, Industrial Engineering Department, University of Jordan, Amman, Jordan, *September 1992 – November 2010.*

- Research and Teaching Assistant, Industrial Engineering Department, University of Jordan, Amman, Jordan, *September 1987 - August 1988*.
- Lecturer, Electrical Engineering Department, Yarmouk University (then Jordan University for Science and Technology), Irbid, Jordan, July 1985-August 1987.
- Systems Engineer, Real-Time Engineering, Jeddah, Saudi Arabia, *August 1983 - February 1985*.

**Professional Membership:**

Member of the editorial board of the International Association of Engineers (IAENG), Hong Kong.

Member of the Jordan Engineers Association, Jordan.

Member of the Institute of Industrial Engineers, USA.

**Areas of Research Interest:**

Design and Analysis of Production Systems

Continuous Improvement of Processes and Systems

**Publications:**

1. Khaldoun K. Tahboub, Mahmoud Barghash, Mazen Arafeh, Osama Ghazal, *An ANN-GA framework for optimal engine modeling*, Mathematical Problems in Engineering, accepted Feb. 2016.
2. A.M. Mukattash, K.K. Tahboub, R.H. Fouad, and A.A. Al-Bashir, *A Unified Approach for Designing a Cellular Manufacturing System by Specifying the Number of Cells*, Int. J. App. Math. Stat.; vol. 27, no. 3, 2012.
3. Khaldoun K. Tahboub, *Maximizing the Production Rate of an Aluminum Extrusion Process Using Taguchi Techniques*, The 15th International Conference on Machine Design and Production (UMTIK2012), June 19–22, 2012, Pamukkale, Denizli, Turkey
4. Ghassan Naji, Khaldoun K. Tahboub, and Issam Jalham, *Evaluating Small Scale Grid-connected Wind and Solar Distributed Generation Systems in Jordan*, Dirasat Journal / Engineering Sciences, vol. 38, no. 1, Amman, Jordan, April 2011.
5. Ahmad Jaradat and Khaldoun K. Tahboub, *Decision Making Using Multiple Rates of return: An Alternative Approach*, Jordan Journal of Mechanical and Industrial Engineering, Volume 5, Number 2, Pages 193 – 196, April 2011, Hashemite University, Jordan.
6. Khaldoun K. Tahboub, *An Assessment of Maintenance Practices and problems in Jordanian Industries*, Jordan Journal of Mechanical and Industrial Engineering, volume 5, number 4, pp 315 – 323, August 2011, Hashemite University, Jordan.
7. Ghassan J. Naji, Khaldoun K. Tahboub, Issam S. Jalham, *Small Scale Private Wind and Solar On-Grid Distributed Generation in Jordan: Potential and Economic Feasibility*, Global conference on renewables and energy efficiency for desert regions (gcreeder2009), Amman-Jordan, March 31<sup>st</sup> – April 2<sup>nd</sup> 2009.
8. Khaldoun K. Tahboub and M.S.N. Al-Din, *A Neuro-Fuzzy Reasoning System for Mobile Robot Navigation*, Jordan Journal of Mechanical and Industrial Engineering, Vol. 3, No. 1, 2009, pp75-86.

9. Adnan M. Mukattash, Ghaleb Y. Abbasi, Khaldoun K. Tahboub, Mazin Bakir Adil, *A modified revised P-median approach to cell formation*, International Journal of Industrial and Systems Engineering 2007 - Vol. 2, No.1 pp. 51 - 60.
10. A.M. Mukattash, M.B., Adil, and K.K. Tahboub, *A Manufacturing Cell Formation Algorithm with Minimum Inter-Cell Movements*, International Journal of Applied Engineering Research, Vol. 1, No.1, pp. 9-22, research India Publications, 2006.
11. Ibrahim Rawabdeh and Khaldoun Tahboub, *New Heuristic Approach for a Computer-Aided Facility Layout*, Journal of Manufacturing Technology Management, Vol. 17, No. 7, 2006
12. A.M. Mukattash, M.B., Adil, and K.K. Tahboub, *Heuristic Approaches for Part Assignment in Cell Formation*, Computers & Industrial Engineering, No. 42, 2002.
13. Khaldoun K. Tahboub, *Optimizing an Extrusion Blow Molding Process Using the Taguchi Approach*, The 12<sup>th</sup> International Conference on Machine Design and production, 05 – 08 September 2006, Turkey.
14. Khaldoun K. Tahboub and M.S.N. Al-Din, *A Weighted Fuzzy System for Autonomous Mobile Robot Navigation*, The 12<sup>th</sup> International Conference on Machine Design and production, 05 – 08 September 2006, Turkey.
15. K. Tahboub, I. Rawabdeh, *A Design of Experiments Approach for Optimizing an Extrusion Blow Molding Process*, Journal of Quality in Maintenance Engineering, Vol. 10, No. 1, 2004.
16. A.M. Mukattash, K.K. Tahboub, *Generation of Four-Cell Formation Algorithm with minimum Sum of Voids and Exceptions*, Dirasat, Engineering Sciences, volume 31, no. 2, 2004.
17. M.N. Al-Din, K. Tahboub, *The Use of a Decomposed Fuzzy System for Autonomous Mobile Robot Navigation*, CIMCA 2003 Proceedings, Vienna – Austria, Feb. 2003.
18. D.M. Mustafa, K.K. Tahboub, *Mobile Robot Trajectory Planning Using Neural Networks*, International Journal of Robotics & Automation, Vol. 18, Number 2, 2003.
19. M.S.N. Al-Din, K. Tahboub, A. Abu-Baker, *A Novel Fuzzy Like PI Controller*, First International Industrial Engineering Conference, IIEC-2001, Amman-Jordan, Sept. 2001.
20. M. Hammad, D. Badarneh, and K. Tahboub, *Evaluating Variable organic waste to produce Methane*, Energy Conversion & Management, 40, pp1463-1475, 1999.
21. Mukattash, M. Adil, and K. Tahboub, *Heuristic Approaches for Part Assignment in Cell Formation*, Proceedings of the 26<sup>th</sup> International Conference on Computers and Industrial Engineering, Melbourne, Australia, Dec. 1999.
22. A.M. Mukattash, M.B. Adil, K.K.Tahboub, *Bounded Two-Cell Formation Algorithm with Minimum Inter-Cell Movements*, Proceedings of the 3<sup>rd</sup> Jordanian Mechanical & Industrial Engineering Conference, JMIEC99, Amman-Jordan, May 1999.
23. Mukattash, M. Adil, and K. Tahboub, *An Algorithm for Two Cell Formation with Minimum Inter-Cell Movements*, Al-Azhar Engineering Fifth Conference, Dec. 1997.

24. Rayyan, L.A. and Tahboub, K.K., *An Assessment of the Perception of Jordanian Industries Towards TQM and ISO9000*, Dirasat, Natural and Engineering Sciences, Volume 25, No. 2, 1998.
25. Rayyan, L.A. and Tahboub, K.K., *A proposed Methodology for ISO9000 Implementation*, Dirasat, Natural and Engineering Sciences, Volume 25, No. 1, 1998.
26. Bajjali, F. and Tahboub, K., *Status and Perspectives of Modern Manufacturing Systems and Technologies in Jordan*, Convention on Computer Aided Engineering and Design, Trends and Applications in Product Development & Production, The Arab School for Science and Technology, Damascus, Syria, Sept. 23-30, 1995.
27. Odrey, N.G., Tahboub, K., and Wilson, G.R., *A Framework for the Coordination and Control of Flexible Manufacturing Cells*, International Conference on Flexible Automation and Integrated Manufacturing (FAIM94), Blacksburg, VA, USA, May 1994.
28. Tahboub, K., Odrey, N.G., and Wilson, G.R., *Periodic Loading Policies for Real-Time Scheduling and Control of Flexible Manufacturing Cells*, International Journal of Flexible Automation and Integrated Manufacturing, Vol. 2, No. 1&2, 1994.
29. Tahboub, K., Odrey, N.G., and Wilson, G.R., *Periodic Loading Policies for Real-Time Scheduling and Control of Flexible Manufacturing Cells*, International Conference on Flexible Automation and Integrated Manufacturing (FAIM93), University of Limerick, Limerick, Ireland, June 1993.
30. Ahmed, M. S. and Tahboub, K., *Recursive Wiener Filtering for Image Restoration*, IEEE Transactions on Acoustics, Speech, and Signal Processing, vol. ASSP-34, no. 4, pp990-992, 1986.

#### **Funded Projects:**

1. ME-ENG (Middle East Partnership in Sustainable Engineering); a project funded through the TMPUS IV EACEA No 32/2010 program. Project duration 3 years, starting date 15 October, 2011.
2. Product Design Modernization & Order Management; a project funded by The National Council for Human Resources Development (HEDP). Project duration until September 2005.
3. FINSI (training of Industrial Systems Integrators); a project funded through the TMPUS EU – ME. Project duration until October 2005.
4. GIPSECA (A Generic Interactive Package for Systems Engineering Courses and Applications); a project funded by the EU – INCO project DG96-1852 consisting of 7 partners. Total fund of 343.6 kECU; Jordan University share of 49.7 kECU. Project duration of 42 months ending in October 2001.
5. Construction and Neuro-Fuzzy Control of a Mobile Robot; a project funded by the Faculty of Scientific Research, University of Jordan, JD2500, Sep. 2000-Sep. 2001.
6. Effects of Tariff Reduction on Industrial Raw Material Inputs: A Case Study on Steel Sheets; A study commissioned by The Higher Council for Science and Technology (HCST), 1998.
7. BioGas Generation and Utilization; a project funded by the Faculty of Scientific Research, University of Jordan, JD3000, May 96-May 97.

8. Applied Research Guidance and Awareness Spreading in Jordan; funded by The Faculty of Scientific Research, University of Jordan, JD22000, Nov. 95-Nov. 96.

**Ph.D. Theses Supervised:**

1. Automated Solution for Cell Formation, Co-supervised, *Dec. 1997*.

**Master Theses Supervised:**

1. Implementation of Total Productive Maintenance in Health Care: A Neonate Intensive Care Unit, *December 2016*.
2. Spare Parts Management and Control at Arab Potash Company, *August 2016*.
3. Total Productive Maintenance (TPM) Implementation Drug Laboratory at Drug and Food Administration, *August 2016*.
4. A Hybrid Taguchi Simulated Annealing Method for Effective Market Segmentation, *December 2014*.
5. Market Segmentation Using Genetic Algorithms and Nonlinear Principle Component Analysis, *May 2014*.
6. Improving the Service Restoration in Electrical Low Tension System of Jordan Electric Power Company, *May 2010*.
7. Investigating Lean TPM Implementation in Healthcare Facilities, *December 2009*.
8. Operational Risk Management with Six-Sigma in Banking Industries, *August 2009*.
9. Allocation of Transportation Losses Based on Open Electricity Market under Restructuring in Jordan, *August 2009*.
10. Optimum Sustainable Utilization of Wind and Solar Energy as Supplementary, Embedded Electrical Power Supply in Buildings, *May 2009*.
11. Evaluation Study of Serial Production Lines with Different Configurations, *June 2008*.
12. A Critical Investigation of the Effects of ISO17025 Accreditation in Laboratories, *June 2008*.
13. A Hybrid Taguchi-Genetic Algorithm for the Single Machine Sequencing Problem, *May 2008*.
14. A Fuzzy Obstacle Avoidance System for Mobile Robots, *May 2005*.
15. Kinematic Stability of Mobile robots moving on a Rough Terrain, *April 2005*.
16. Intelligent Mobile Robot Controller using Neuro-Fuzzy Techniques, *August 2002*.
17. Assessment and Benchmarking of Internet-Based Education in Industrial Automation, *August 2002*.
18. Flexible Manufacturing Cell Formation using Genetic Algorithms, *June 2001*.
19. Robot Trajectory Planning Using Genetic Algorithms, *Oct. 2000*.
20. An Enterprise modeling Approach for Continuous Improvement at the Amman Central Workshop, *February 2000*.
21. Multi-sensor Fusion and Integration: A Case Study on Object Tracking, *January 1999*.
22. Robot Trajectory Planning Using Neural Networks, *January 1999*.

23. A Simulation Study for Buffer Allocation Problem in Production Lines of Different Configurations, *May 1996*.
24. Development of Alternative Production Planning Strategies in a Wood Furniture Manufacturing Plant, *June 1996*.
25. Design of Buffers in an Automated Production Line Using GPSS Simulation, *May 1995*.
26. Total Quality Management (TQM), and the Success Opportunity of ISO9000 in Jordan, *May 1995*.
27. Design of a Three Dimensional Computer Animation and Simulation System for General Configuration Robotic Arms, *June 1995*.

**Courses Taught at The University of Jordan and Other Jordanian Universities:**

***Graduate (Master) level courses:***

- Maintenance Management and Organization.
- Reliability Performance of production Plants
- Quality Design and Control
- Computer Integrated Manufacturing
- CAD/CAM
- Robotics Engineering
- Design and Analysis of Production Systems

***Undergraduate (Bachelor) level courses:***

- Industrial Automation
- Microprocessors in IE
- Systems Dynamics and Control
- Production Planning and Control
- Facilities Planning
- Design of Manufacturing Systems
- Work Systems and Time and Motion Study
- Quality Control
- Cost Accounting
- Engineering Statistics

***Industry Consultancy and Workshops:***

- Six-sigma (green belt) workshop conducted for Royal Jordanian Airlines.
- Development of a scheduling system for a furniture manufacturer.
- Development of a costing system for a furniture manufacturer.
- Development of a production planning system for a wooden furniture manufacturer.
- Design and Analysis of Production Systems.
- Programmable Logic Controllers (PLCs) training.
- Computer Numerical Control training.
- Introduction to CAD/CAM (*conducted in coop. with Jordan Engineers Assoc.*)
- Trends in Manufacturing and Production Technology Seminar.
- Industrial Automation Technology Seminar.
- Industrial Quality Control & Quality Control Charts training.
- Production Planning and Control training

