Dr. *KHALDOUN K. TAHBOUB*
Ph.D., Industrial Engineering

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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.
The University of Petroleum and Minerals, Dhahran, Saudi Arabia.
B.Sc. Systems Engineering, June 1981.
The University of Petroleum and Minerals, Dhahran, Saudi Arabia.

Work Experience:

Chairman, Industrial Engineering Department, University of Jordan, Amman, Jordan, *December 2009 – September 2010.*

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 – present.

Assistant Professor, Industrial Engineering Department, University of Jordan, Amman, Jordan, *September 1992 - Present*.

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:

Automation and Robotics
Design and Analysis of Production Systems
Continuous Imrpovement of Processes and Systems

Publications:

1. Khaldoun K. Tahboub, *An Assessment of Maintenance Practices and problems in Jordanian Industries*, Accepted for publication, Jordan Journal of Mechanical and Industrial Engineering, Hasshimite University, Jordan, 2010.

2. 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 31st – April 2nd 2009.

3. 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.

4. 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.

5. 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.

6. Ibrahim Rawabdeh and Khaldoun Tahboub, *New Heuristic Approach for a Computer-Aided Facility Layout,* Journal of Manufacturing Technology Management, Vol. 17, No. 7, 2006

7. A.M. Mukattash, M.B., Adil, and K.K. Tahboub, *Heuristic Approaches for Part Assignment in Cell Formation*, Computers & Industrial Engineering, No. 42, 2002.

8. Khaldoun K. Tahboub, *Optimizing an Extrusion Blow Molding Process Using the Taguchi Approach,* The 12th International Conference on Machine Design and production, 05 – 08 September 2006, Turkey.

9. Khaldoun K. Tahboub and M.S.N. Al-Din, *A Weighted Fuzzy System for Autonomous Mobile Robot Navigation,* The 12th International Conference on Machine Design and production, 05 – 08 September 2006, Turkey.

10. 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.

11. 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.

12. 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.

13. D.M. Mustafa, K.K. Tahboub, *Mobile Robot Trajectory Planning Using Neural Networks*, Intenational Journal of Robotics & Automation, Vol. 18, Number 2, 2003.

14. 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.

15. M. Hammad, D. Badarneh, and K. Tahboub, *Evaluating Variable organic waste to produce Methane*, Energy Conversion & Management, 40, pp1463-1475, 1999.

16. Mukattash, M. Adil, and K. Tahboub, *Heuristic Approaches for Part Assignment in Cell Formation*, Proceedings of the 26th International Conference on Computers and Industrial Engineering, Melbourne, Australia, Dec. 1999.

17. A.M. Mukattash, M.B. Adil, K.K.Tahboub, *Bounded Two-Cell Formation Algorithm with Minimum Inter-Cell Movements*, Proceedings of the 3rd Jordanian Mechanichal & Industrial Engineering Conference, JMIEC99, Amman-Jordan, May 1999.

18. Mukattash, M. Adil, and K. Tahboub, *An Algorithm for Two Cell Formation with Minimum Inter-Cell Movements,* Al-Azhar Engineering Fifth Conference, Dec. 1997.

19. 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.

20. Rayyan, L.A. and Tahboub, K.K., *A proposed Methodology for ISO9000 Implementation*, Dirasat, Natural and Engineering Sciences, Volume 25, No. 1, 1998.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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. Product Design Modernization & Order Managemnt; a project funded by The National Council for Human Resources Developmnt (HEDP). Project duration until September 2005.
2. FINSI (training of Industrial Systems Integrators); a project funded through the TMPUS EU – ME. Project duration until October 2005.
3. 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.
4. 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.
5. 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.
6. BioGas Generation and Utilization; a project funded by the Faculty of Scientific Research, University of Jordan, JD3000, May 96-May 97.
7. 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. Improving the Service Restoration in Electrical Low Tension System of Jordan Electric Power Company, *May 2010*.
2. Investigating Lean TPM Implementation in Healthcare Facilities, *December 2009*.
3. Operational Risk Management with Six-Segma in Banking Industries, *August 2009*.
4. Allocation of Transportation Losses Based on Open Electricity Market under Restructuring in Jordan, *August 2009*.
5. Optimum Sustainable Utilization of Wind and Solar Energy as Supplementary, Embedded Electrical Power Supply in Buildings, *May 2009*.
6. Evaluation Study of Serial Production Lines with Different Configurations, *June 2008*.
7. A Critical Investigation of the Effects of ISO17025 Accreditation in Laboratories, *June 2008*.
8. A Hybrid Taguchi-Gentic Algorithm for the Single Machine Sequencing Problem, *May 2008*.
9. A Fuzzy Obstacle Avoidance System for Mobile Robots, *May 2005*.
10. Kinematic Stability of Mobile robots moving on a Rough Terrain, A*pril 2005*.
11. Intelligent Mobile Robot Controller using Neuro-Fuzzy Techniques, *August 2002*.
12. Assessment and Benchmarking of Internet-Based Education in Industrial Automation, *August 2002*.
13. Flexible Manufacturing Cell Formation using Genetic Algorithms, *June 2001*.
14. Robot Trajectory Planning Using Genetic Algorithms, *Oct. 2000*.
15. An Enterprise modeling Approach for Continuous Improvement at the Amman Central Workshop, *February 2000*.
16. Multisensor Fusion and Integration: A Case Study on Object Tracking, *January 1999*.
17. Robot Trajectory Planning Using Neural Networks, *January 1999*.
18. A Simulation Study for Buffer Allocation Problem in Production Lines of Different Configurations, *May 1996*.
19. Development of Alternative Production Planning Strategies in a Wood Furniture Manufacturing Plant, *June 1996*.

20. Design of Buffers in an Automated Production Line Using GPSS Simulation, *May 1995.*

21. Total Quality Management (TQM), and the Success Opportunity of ISO9000 in Jordan, *May 1995.*

22. Design of a Three Dimensional Computer Animation and Simulation System for General Configuration Robotic Arms, *June 1995.*

Courses Taught at the University of Jordan:

Advanced Quality Control (Graduate)
Computer Integrated Manufacturing (Graduate)
Robotics Engineering (Graduate)
Design and Analysis of Production Systems (Graduate)
Automation; Microprocessors in I.E., Control Systems
Production Planning and Control, Facilities Planning
Quality Control; Engineering Statistics
Cost Accounting

Industry Consultancy and Workshops:

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