

Dr. Alaa M. Masrahi

Assistant Professor of Industrial & Systems Engineering | Operations Management Researcher

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Professional Summary

Industrial and Systems Engineering professional with over 13 years of experience in strategic leadership, operational excellence, academic governance, and performance improvement. Specialized in production planning and control, operations management, supply chain management, forecasting and demand analysis, business process optimization, modeling and simulation, and KPI development. Experienced in interdisciplinary research, accreditation support, curriculum development, and strategic planning aligned with Vision 2030.

Current Appointment

- **Assistant Professor of Industrial & Systems Engineering** – Jazan University | Dec 2019 – Present
 - Teaching Production Planning, Systems Engineering, Operations Research, Productivity, Modeling & Simulation, and Quality Control.
 - Supervising interdisciplinary senior projects and undergraduate research aligned with Vision 2030 themes.
 - Leading strategic initiatives and reviewing academic publications within the engineering college.
 - Mentoring students and junior faculty in research methodology and academic publication.
 - Serving on institutional committees including Partnerships and Collaboration Committee.

Education

Ph.D. in Industrial & Systems Engineering

University of Rhode Island, USA | 2016 – 2019

Dissertation: Identifying Factors of Success for Renewable Energy Growth in the United States of America

M.S. in Engineering Management

University of Dayton, USA | 2012 – 2014

Focus: Six Sigma, Systems Integration, Operations Excellence

B.S. in Industrial Engineering

Jazan University, Saudi Arabia | 2010

Leadership & Academic Roles

- Chair of Scientific Committee, Industrial Engineering Department.
- Coordinator of Planning & Development Committee, College of Engineering.
- Member of strategic academic planning and curriculum review boards.
- Led initiatives to restructure student training programs using industrial engineering methodologies.

Selected Initiatives & Projects

Strategic Planning (2015–2020): Designed and implemented a strategic roadmap for the College of Engineering using McKinsey 7S and OKRs.

Reform of Industrial Training: Developed a student-centered industrial training system adopted across departments.

Green Vehicle Acceptance Study – Rhode Island: Developed predictive models for sustainable electricity consumption in the USA.

Supply Chain Diploma: Conducted feasibility studies and curriculum development for a diploma program at Baish Community College.

Strategic Planning (2026–Present): Designing and developing the College of Engineering and Computer Science strategic roadmap.

Selected Publications

- Motamedi, S., Masrahi, A., Bopp, T., & Wang, J. (2021). Different level automation technology acceptance: Older adult driver opinion. Transportation Research Part F.
- Masrahi, A. (2019). Identifying Factors of Success for Renewable Energy Growth in the United States of America. University of Rhode Island.
- Masrahi, A. Identify the factors influencing consumer behavioral intention to use renewable energy for residential electricity sector in the United States. Sustainable Cities and Society.
- Abudiyah, A., Moxon, R., Pagliari, R., & Masrahi, A. (2017). Evaluating passenger arrival processing at crowded airports. ATARD Conference, Dublin.

Certifications & Professional Development

- Six Sigma Green Belt – University of Dayton
- Systems Engineering Certification – University of Dayton
- Academic Training of Trainers – Jazan University
- COVID-19 Operational Preparedness – WHO
- Data Science with R – DataCamp

Technical Skills

- Modeling & Simulation: Simio, LabView
- Optimization & Decision Support: TORA, LINGO, Excel Solver
- Statistical Analysis & Visualization: R, Minitab, SPSS, EQS
- Programming: R
- Project & Communication Tools: MS Office, Outlook, PowerPoint, MS Project

Languages

- Arabic – Native
- English – Fluent (Professional Academic Proficiency)