ALİ BAŞTAŞ PhD MEng CQP DipQ

Assistant Professor of Industrial Engineering
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RESEARCH PROFILE

Assistant Professor of Industrial Engineering specializing in sustainable manufacturing, supply chain quality management, and Industry 4.0/5.0 applications. My research focuses on integrating quality management, sustainability, and digital technologies, with publications in journals such as *Journal of Intelligent Manufacturing*, *Journal of Manufacturing Technology Management*, *Journal of Cleaner Production*, and *Sustainable Production and Consumption*. I combine my industrial experience at JCB supply chain with academic expertise to develop practice-oriented, data-driven quality, supply chain and sustainability solutions.

- Google Scholar citations: 869 (as of Dec. 2025)
- h-index: 7
- Number of SCI/SCIE articles: 8; ESCI articles: 1 (9 in total, as of Dec. 2025)

EDUCATION

PhD in Engineering Management
University of Derby, College of Science and Engineering, UK – July 2019
Thesis area: Sustainable Supply Chain Quality Management
Examiners: Prof. Jose Arturo Garza-Reyes; Prof. Sameh Saad

MEng (Hons) in Mechanical Engineering with Manufacturing & Management (2:1)
University of Bath, UK – July 2014

PROFESSIONAL QUALIFICATIONS

- Chartered Quality Professional (CQP), Chartered Quality Institute – Feb. 2018
- Level 5 Diploma in Quality Management (DipQ), CQI – Dec. 2017
- ISO 9001 Quality Management Systems, Lead Auditor, BSI – Jul. 2015
- Lean Six Sigma Green Belt, Industry Forum – Feb. 2018

ACADEMIC APPOINTMENTS

Assistant Professor, Department of Industrial Engineering
Eastern Mediterranean University (EMU), Cyprus – Jul. 2021 to Present.

- Coordinate and deliver undergraduate and graduate courses in industrial engineering and quality management (e.g., Industrial Management, Production Planning, Statistical Applications for Engineering).
- Consistently achieve student evaluation scores of ≥3.5/4.0 across courses.
- Lead and co-author research on sustainable manufacturing, Industry 4.0/5.0, sustainable APQP 4.0, and supply chain quality management.
- Contribute to departmental committees, curriculum development, and continuous improvement initiatives.

Assistant Professor, Mechanical Engineering Program
Middle East Technical University – Northern Cyprus Campus, Cyprus – Sept. 2019 to Jul. 2021.

- Delivered core and elective courses in manufacturing, quality, and industrial engineering, including Production and Service Systems Design Project.
- Contributed to METU NCC's impact on the industry and on the community, building the bridge between the Cyprus Turkish Chamber of Industry, organising, and advising industrial graduation design projects that contributed to local manufacturing firms. Coordinated the Graduation Design Project module (Sept 2020–July 2021), supervising industry-based projects with ICY, CEE Ltd., ASM Recycling Ltd., and Tek-Med.
- Actively contributed to ABET and PEC accreditation activities and program quality assurance.

PEER-REVIEWED JOURNAL ARTICLES

- Gholipour, E., & Bastas, A. (2024). State-of-the-art review of neural network applications in pharmaceutical manufacturing: Current state and future directions. *Journal of Intelligent Manufacturing, 35*, 3003–3035.
- Bastas, A., & Garza-Reyes, J. A. (2022). Impact of the COVID-19 pandemic on manufacturing operations and supply chain resilience: Effects and response strategies. *Journal of Manufacturing Technology Management, 33*(5), 962–985.
- Rizvi, S., Bastas, A., & Liyanage, K. (2022). Sustainability assessment of electricity generation technologies: A transition pathway for Pakistan. *International Journal of Sustainable Energy, 41*(9), 1215–1236.
- Bastas, A. (2021). Sustainable manufacturing technologies: A systematic review of latest trends and themes. *Sustainability, 13*, 4271.
- Bastas, A. (2020). Comparing the probing systems of coordinate measurement machine: Scanning probe versus touch-trigger probe. *Measurement, 156*, 107604.
- Bastas, A., & Liyanage, K. (2019). Setting a framework for organizational sustainable development. *Sustainable Production and Consumption, 20*, 207–229.
- Bastas, A., & Liyanage, K. (2019). Integrated quality and supply chain management business diagnostics for organizational sustainability improvement. *Sustainable Production and Consumption, 17*, 11–30.
- Bastas, A., & Liyanage, K. (2018). ISO 9001 and supply chain integration principles-based sustainable development: A Delphi study. *Sustainability, 10*, 4569.
- Bastas, A., & Liyanage, K. (2018). Sustainable supply chain quality management: A systematic review. *Journal of Cleaner Production, 181*, 726–744.

RESEARCH INTERESTS

- Sustainable manufacturing and Industry 4.0/5.0
- Supply chain resilience and risk management
- Quality management and sustainable supply chain quality management
- Sustainable new product introduction, APQP and Sustainable APQP 4.0
- Data-driven quality engineering and SPC in smart factories

TEACHING EXPERIENCE AND COURSES TAUGHT

Engineering and Operations Management courses taught include:

- IENG332 - Production Planning I
- IENG450 - Industrial Management
- IENG486 - Recent Topics in Quality Management (including Lean Six Sigma Applications)
- MECH471 - Facility (Production Operations) Design

Manufacturing Engineering courses taught include:

- MECH202 - Manufacturing Technologies (including coordination of the Machine Shop Activities)
- IENG263 - Materials and Manufacturing Processes
- IENG447 – Computer Integrated Manufacturing

Other courses taught include:

- IENG598 and IENG698 - Master's and PhD Research Seminar
- IENG385 - Statistical Applications for Engineering
- MECH458 - Graduation Design Project (Course Coordinator, Sep 2020 – Jul 2021)
- IENG490 - Introduction to Manufacturing and Service Systems Design
- IENG492 - Manufacturing and Service Systems Design Project

SUPERVISION

MSc Thesis – Supervisor: Rizvi, S. M. A. H. (2022) *An integrated decision-making model for sustainable management of end-of-life solar photovoltaics: A case study of Spain,* Middle East Technical University (METU).

MSc and PhD supervision in progress in the domains of sustainability, quality, and supply chain management.

EDITORIAL AND REVIEWING ACTIVITIES

Guest Editor, Special Issue "The Impact of Industry 4.0 on Sustainability and the Circular Economy," *Sustainability* (MDPI).

Ad-hoc reviewer for:

- Journal of Cleaner Production (Elsevier)
- Journal of Manufacturing Technology Management (Emerald)
- International Journal of Production Research (Taylor & Francis)
- Sustainability (MDPI)
- Other quality, sustainability, and manufacturing journals as invited.

INDUSTRIAL EXPERIENCE

Supplier Development Engineer
JCB, Group Purchasing, UK – Mar. 2015 to Jun. 2018

- Managed supplier quality for Backhoe Loaders, Transmissions, and Telehandlers business units across UK and European supply base.
- Conducted supplier system and process audits (including paint, welding, casting, and cleanliness) across UK, Europe, and Asia.
- Developed and rolled out the JCB Global Supplier Welding Process Audit, adopted in UK, Europe, India, and China.
- Led APQP/NPI projects at key suppliers, reducing launch risk and improving process capability for critical components.
- Worked closely with cross-functional teams (design, manufacturing, purchasing) to resolve complex supplier quality issues.

Manufacturing Engineer – Graduate Scheme
JCB, Telehandlers Division and Hydraulic Business Unit, UK – Jul. 2014 to Mar. 2015

- Rotated across manufacturing engineering, process improvement, and operations roles within JCB plants (JCB Hydraulic Business Unit and Tele-handlers Business Unit).
- Supported planning and productivity initiatives in high-volume manufacturing environment.

Design & Continuous Improvement Engineer (Professional Industrial Placement)
Parker Hannifin Ltd., Hydraulic Cartridge Systems Division, UK – Jul. 2011 to Jul. 2012

- Contributed to design and continuous improvement projects in a high-mix, engineering-to-order environment.
- Participated in lean and quality improvement initiatives focused on productivity and waste reduction.

PROFESSIONAL TRAINING AND TECHNICAL SKILLS

- IOSH Managing Safely; Level 2 Award in Risk Assessment
- 8D Problem Solving; Process and Design FMEA
- CSWIP Weld Inspection training
- MS Office; MATLAB; SPSS; Simio; SolidWorks (CAD/CAM)

AWARDS AND HONORS

- Outstanding Contribution in Reviewing Award, *Journal of Cleaner Production*, Elsevier – 2017
- IET Best Student Graduating in Manufacturing Engineering Prize, University of Bath – 2014
- Academic Representation Achievement Award, University of Bath – 2013

PERSONAL DETAILS

- Nationality: British and Cypriot
- Languages: English and Turkish (Native), Greek and French (Basic).
- Military service: Completed (Aug. 2018, North Cyprus)
- Interests: Fitness, football, guitars, specialty coffee and tea