

# Dr. Zehra Canan Araci

Ph.D. in Lean Product Development

Assistant Professor of Industrial Engineering

University of Sharjah

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## EDUCATION

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<b>2014 – 2017</b>	<b>PhD: Lean Product and Process Development</b> Cranfield University, UK
<b>2012 – 2013</b>	<b>MSc: Industrial Engineering and Operations Management</b> University of Nottingham, UK
<b>2004 – 2008</b>	<b>BSc: Industrial Engineering</b> Dumlupinar University, Turkey

## CAREER HISTORY

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<b>2020 – Present</b>	<b>Assistant Professor:</b> Industrial Engineering and Engineering Management University of Sharjah, Sharjah, UAE
<b>2019 – 2020</b>	<b>Assistant Professor:</b> Quality Management Abu Dhabi School of Management, Abu Dhabi, UAE
<b>2018 Spring &amp; Summer</b>	<b>Adjunct Faculty:</b> Quality and Business Excellence Abu Dhabi School of Management, Abu Dhabi, UAE
<b>2018 Spring</b>	<b>Adjunct Faculty:</b> College of Engineering Abu Dhabi University, Abu Dhabi, UAE
<b>2017 – 2018</b>	<b>Research Consultant:</b> Operational Excellence Al-Zahra Private Hospital, Dubai, UAE
<b>2014 – 2017</b>	<b>Researcher (PhD):</b> Lean Product Development Cranfield University, UK
<b>2009 – 2012</b>	<b>Specialist: Quality Management Systems</b> Sigma Center Management Systems, Bursa, Turkey

## RESEARCH PROJECTS

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- 2016 Project Leader**, Caltec Limited, UK, Lean Development of a Jet Pump for Oil and Gas Industry
- 2015 Research Team Member**, Rolls-Royce Plc, UK, CONGA-Configuration Optimisation of Next Generation Aircraft.
- 2014 Project Leader**, Paxton Access Ltd, UK, Lean Development of a Vandalism-Resistant Electronic Card-Reader

## PROFESSIONAL/TECHNICAL TRAINING:

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1. ISO 9001:2008 Quality Management Systems Informing and Documentation,
2. ISO 9001:2008 Quality Management Systems Internal Auditor,
3. OHSAS 18001 Occupational health and safety management systems,
4. Problem Solving Techniques,
5. Lean Manufacturing – 5S, VSM (Value Stream Mapping), SMED (Single Minute Exchange of Dies),
6. Supply Chain Management and Logistics,
7. Six Sigma Green Belt,
8. KAIZEN,
9. TPM (Total Productive Maintenance),
10. Ce Marking
11. TS ISO/IEC 27001 Information Security Management systems.

## COURSES TAUGHT (MSc)

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- Strategic Management and Principles
- Quality Management Systems and Approaches
- Quality Improvement Tools and Techniques
- Quality Engineering
- Achieving Business Excellence
- Business Excellence Awards and Frameworks
- Creative Problem Solving
- Case Study Analysis and Research Skills
- Statistical Process Control
- Lean Manufacturing
- Knowledge Acquisition and Creation
- Knowledge system design
- Strategic Knowledge Management

## COURSES TAUGHT (PhD)

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- Research Methods
- Lean product development
- Research Methodology
- Systematic literature review
- Searching the suitable journal for the research paper publications and identifying the right journal paper with high impact factors.
- Designing poster to exhibit research results.

## EVENTS / ACTIVITIES / SEMINARS (CO-ORGANIZED)

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1. **Industrial seminar**, Cranfield University, UK, 3<sup>rd</sup> Industrial Lean Product and Process Development (LeanPPD).
2. **Closed debate**, Rolls-Royce Bristol, UK, 1st Lean Product and Process Development LeanPPD.
3. **Training** 3 days, Cranfield University, UK, Lean Product Development.
4. **Training** 2 days, Stockholm, Sweden, Lean Product Development.
5. **Seminar**, GE aviation Cheltenham, UK, Lean Product Development.
6. **Seminar** and final project presentation, Paxton in Brighton, Lean Product Development.

**Languages:** Turkish (native), English (fluent), Arabic (basic), German (basic).

## PUBLICATIONS

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### Journal papers (peer-reviewed):

1. **Araci, Z.C.**, Al-Ashaab, A., Tariq, M.U. and Braasch J.H. (In press). Synthesizing Knowledge for Lean Product Development Process of a Low Noise Jet Engine. *International Journal of Aerospace System Science and Engineering*.
2. **Araci, Z.C.**, Al-Ashaab, A., Tariq, M.U., Braasch, J.H. and Simsekler, E.M.C. (2020). Creating knowledge environment during lean product development process of jet engine. *International Journal of Advanced Computer Science and Applications*, 11 (5), pp. 58-62.
3. Tariq, M.U, Khan, S. and **Araci, Z.C.** (2020). Self-directed Learning through YouTube: Challenges, Opportunities, and Trends in the United Arab Emirates. *International Journal of Mechanical and Production Engineering Research and Development*, 10 (3), pp. 1949-1966. ISSN (P): 2249-6890; ISSN (E): 2249-8001.
4. Iglesia, A., Al-Qassimi, M., Abouali, S., Alqarni, N., Mazouni, B., Waboi, A., **Araci, Z. C.** and Al-Ashaab, A. (2017). Developing a healthcare knowledge-based framework to enhance the productivity of the operations of private hospitals. *International Journal of Systems Applications, Engineering & Development*, 11 (2017), pp: 270-276. ISSN: 2074-1308.
5. **Araci, Z.C.**, Al-Ashaab, A., and Maksimovic, M. (2016). Knowledge Creation and Visualisation by Using Trade-off Curves to Enable Set-based Concurrent Engineering. *Electronic Journal of Knowledge Management*, v.14 (1), p. 75-88. ISSN 1479-4411.
6. **Araci, Z.C.**, Al-Ashaab, A., Garcia Almeida, C. and Young, S. (on process). Supporting designers with right knowledge-environment in lean product development process: Case study of an electronic card reader.
7. **Araci, Z.C.**, Al-Ashaab, A., Garcia Almeida, C., McGavin, J. (on process). Physics-based Trade-off Curves to Develop a Control Access Product in Set-based Concurrent Engineering Environment.
8. Al-Ashaab, **A.**, **Araci, Z.C.**, Mohd Maulana, M.I.I., Garcia Almeida, C., Khan, M.S., Shammari, A.Z.M.,Deli, D.Q., Laoui, Y., Shehab, E., Young, S. and McGavin, J. (on process). Set-Based Concurrent Engineering: A process model and case study validation.

### Conference Papers (peer-reviewed):

1. Alyaarbi A, Atatreh S, Alsereidi A, Alblooshi N, Almaazmi S, Jayaraman R, Simsekler MCE, **Araci ZC**, Ellahham S. (2020) *Evaluation of Variability in Clinical Assessments*. Proceedings of the 8<sup>th</sup> International Conference on Industrial Engineering and Operations Management (IEOM), Dubai, UAE.
2. **Araci, Z.C.**, Al-Ashaab, A., Lasisz, P.W., Flisiak, J.W., Mohd Maulana, M.I.I., Beg, N., Rehman,A. (2017). *Trade-off Curves Applications to Support Set-Based Design of a Surface Jet Pump*. 27<sup>th</sup> CIRP Design Conference, 10-12 May 2017, Cranfield, UK, Procedia CIRP, 60 (2017), pp. 356-361. Doi: 10.1016/j.procir.2017.01.028.
3. Mohd Maulana, M.I.I., Al-Ashaab, A., Flisiak, J.W., **Araci, Z.C.**, Lasisz, P.W., Shehab, E., Beg, N., Rehman, A. (2017). *The set-based concurrent engineering application: a process of identifying the potential benefits in the surface jet pump case study*. 27<sup>th</sup> CIRP Design Conference, 10-12 May 2017, Cranfield, UK, Procedia CIRP, 60 (2017), pp. 350-355. Doi: 10.1016/j.procir.2017.01.026.
4. **Araci, Z.C.**, Al-Ashaab, A., Garcia Almeida, C., McGavin, J. (2016). *Enabling Set-based Concurrent Engineering via Physics-based Trade-off Curves*. 3<sup>rd</sup> International Conference on Aeronautical and Mechanical Engineering (AEME '16), 17-19 December 2016, Bern, Switzerland. E-ISSN: 2224-2899.

5. Mohd Maulana, M.I.I., Flisiak, J.W., Al-Ashaab, A., **Araci, Z.C.**, Lasisz, P.W., Beg, N., Rehman, A. (2016). *The Application of Set-Based Concurrent Engineering to Enhance the Design Performance of Surface Jet Pump*. 3<sup>rd</sup> International Conference on Aeronautical and Mechanical Engineering (AEME '16), 17-19 December 2016, Bern, Switzerland. E-ISSN: 2224-2899.
6. **Araci, Z.C.**, Al-Ashaab, A., Maksimovic, M. (2015). *A Process of Generating Trade-off Curves to Enable Set-based Concurrent Engineering*. Proceedings of the 16th European Conference on Knowledge Management (ECKM2015), 3-4 September 2015, Udine, Italy, p. 37-46.

**Reports, Magazine Articles, and Others:**

1. Al-Ashaab, A., Golob, M., Oyekan, J., **Araci, Z. C.**, Khan, M., Deli, D., and Al-Ali, E., (2014). Flying into aerospace's next generation. *Industrial Engineer Magazine*. V. 46, N. 10, p.38-43.
2. **Araci, Z.C.** (2014). *Knowledge visualisation using trade-off curves to enable SBCE*. 4th LeanPPD Industrial Workshop, 28 October 2014, Cranfield, UK, p. 97-110.