DR. SULTAN ALSHAREEF

PhD, Assistant Professor
College of Technological Studies, PAAET, Kuwait

EDUCATION

PhD in Mechanical Engineering
University of Utah
2023

Master of Science in Mechanical Engineering
University of Utah
2012

Bachelor of Science in Mechanical Engineering Technology
University of Toledo
2006

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Building 20 – CTS
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PROFESSIONAL OVERVIEW

Assistant Professor of Mechanical Engineering specializing in microscale heat transfer, CFD, and advanced thermal management systems. Over 15+ years of combined academic and industry experience, including USPTO-granted patents, peer-reviewed publications, and funded research. Proven record in STEM education, innovation leadership, and translating research into patented technologies.

WORK EXPERIENCE

Assistant Professor
College of Technological Studies, PAAET, Kuwait 2023-Present

- Teach undergraduate courses in fluid mechanics, heat transfer, and thermodynamics.
- Supervise undergraduate research and capstone projects.
- Lead research in microscale convective heat transfer and CFD modeling.
- Develop and patent novel thermal management systems, resulting in two USPTO-granted patents.
- Contribute to innovation evaluation committees and national invention programs.

Doctoral Researcher (PhD) - Mechanical Engineering
The University of Utah 2015- 2023

Assistant Lecturer
College of Technological Studies, PAAET, Kuwait 2012- 2015

Graduate Researcher (MSc) – Mechanical Engineering
The University of Utah 2009- 2012

Project Engineer
Wafra Joint Operation, Kuwait 2006- 2009

TECHNICAL SKILLS

- Computational Fluid Dynamics (ANSYS Fluent, COMSOL).
- Microscale heat transfer & convective enhancement.
- Experimental thermal-fluid systems.
- Data analysis and numerical modeling.

PROFESSIONAL SKILLS

- Curriculum design & STEM education.
- Research supervision.
- Patent development & innovation strategy.
- Technical writing & peer review (ASME reviewer for Journal of Thermal Science and Engineering Applications & Open Journal of Engineering).

PROFESSIONAL CERTIFICATIONS

- International Certified Trainer – Institute of Leadership & Management (ILM-UK).
- International Certified Trainer – American Board of Kuwait.
- Harvard BOK Certificate in Higher Education Teaching.

MEMBERSHIPS

- Kuwait Society of Engineers.
- American Society of Mechanical Engineers (ASME).
- Kuwait Society of Inventors.
- Arbitration committee member at Sabah Al-Ahmad Center for Giftedness and Creativity.
- Association for Talent Development Professional Plus Member *ATD*+ (USA).
- Member of the Institute of Leadership *MIoL* (ILM-UK).
- Member of the American Management Association (AMA-USA).
- Member of the Association of International Educators (NAFSA-USA).

HONORS AND AWARDS

- Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC) Award 2022.
- Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC) Award 2024.
- Gold Medal International Invention Fair in the Middle East (IIFME) 2024.
- Silver Medal International Invention Fair in the Middle East (IIFME) 2025.

PUBLICATIONS

THESIS & DISSERTATION

- Alshareef S. “Numerical Investigation on Novel Microscale Convective Heat Transfer Enhancement Methods” PhD dissertation, University of Utah, Salt Lake City, USA, 2023.
- Alshareef S. “Experimental study of xurographic microchannel single-pass single-phase counterflow heat exchanger” Master’s thesis, University of Utah, Salt Lake City, USA, 2012.

PATENTS (GRANTED)

- (US 12,098,891 B1) Thermal management system, 2024.
- (US 11,252,841 B1) Microscale Heat Transfer Enhancement Device, 2022.

JOURNAL PAPERS

- Alhashem, A.; Alshareef, S.; Alharbi, A.Y.; Alrahmani, M.A. Fluid Dynamic and Thermal Performance of a V-Shape Slotted Cylinder. Energies 2024, 17, 6192. https://doi.org/10.3390/en17236192.
- S. Alshareef, T. Harman, T. Ameel, Fluid dynamic and thermal performance of a slotted cylinder at low Reynolds number, International Journal of Heat and Mass Transfer 212 (2023) 124268.

CONFERENCE PAPERS

- S. Alshareef, T. Harman, and T. Ameel, "Thermal Fluid Assessment of Cylinders with Multiple Slots in Aligned Flow," 2022 21st IEEE Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (iTherm), 2022, pp. 1-9, doi: 10.1109/iTherm54085.2022.9899624.
- Alshareef, S, Harman, T, & Ameel, T. "Thermal Fluid Assessment of Bluff Versus Streamlined Bodies with a Slot for Aligned Flow." Proceedings of the ASME 2022 Heat Transfer Summer Conference collocated with the ASME 2022 16th International Conference on Energy Sustainability. ASME 2022 Heat Transfer Summer Conference. Philadelphia, Pennsylvania, USA. July 11–13, 2022. V001T12A001. ASME. https://doi.org/10.1115/HT2022-80024.