

QUSAY A. AL-KASEASBEH

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BIO

Dr. Qusay Al-Kaseasbeh is an Associate Professor in the Civil and Environmental Engineering Department at Mutah University in Jordan. He earned his Ph.D. in Civil Engineering from the University of North Dakota (2019) and an M.Sc. from North Dakota State University (2016). Dr. Al-Kaseasbeh heads the Mutah Structural Engineering Lab (MSEL), the first research-focused lab at Mutah University and in southern Jordan. Prior to academia, he worked as a Structural Design Engineer at Wells Concrete in the USA.

EDUCATION

University of North Dakota PhD degree in Civil Engineering, Minor: Steel Structures. GPA: 4.0/4.0	ND, USA May 2019
North Dakota State University Master of Science degree in Civil Engineering, Minor: Steel Structures. GPA: 4.0/4.0	ND, USA May 2016
Mutah University Bachelor of Science Degree in Civil Engineering. GPA: 3.72/4.0 (Overall assessment: Excellent)	Karak, Jordan Jan 2013
Ayy Secondary School High School Certificate. GPA: 92.1/100 (Scientific Stream)	Karak, Jordan August 2008

RESEARCH INTERESTS

- Advanced Numerical Analysis.
- Coatings and Corrosion.
- Cyclic Plasticity of Structural Steel.
- Fire Engineering.
- Seismic Design of Steel Structures.
- Thin-Walled Steel Structures.

RESEARCH GRANTS

- Materials Science and Energy Lab (MSEL) Establishment (\$250,000, 3 years), Deanship of Scientific Research, Mutah University, 2020.

SCHOLARSHIPS

- Recipient of Prestigious Scholarship from Mutah University for graduate studies.
- Recipient of Army Scholarship for Undergraduate Studies in Mutah University.

AWARDS

- "Best Graduate Paper" Award in 6th IAJC International Conference, Orlando, Florida.

PROFESSIONAL RESEARCH PROFILES

- [Scopus Profile](#)
- [ORCID Profile](#)
- [ResearchGate Profile](#)
- [Google Scholar Profile](#)
- [Academic Web Profile](#)

TEACHING EXPERIENCE

Assistant Professor/ American International University

Al Jahra, Kuwait

Courses: Applied Fluid Mechanics, Civil Eng. Materials, CAD in Engineering, Energy, Emissions, Envi Eng.

Aug 2024 - Present

- Teaching, Curriculum Development, and Mentoring and Advising.
- Research, Service and Committee Work, and Professional Development.
- Offering academic support through tutoring and office hours.

Associate Professor/ Mutah University

Karak, Jordan

Courses: Steel Structures, Structural Analysis, Statics, Eng. Economy, AutoCAD, Numerical Methods, Engineering Drawing, Surveying Lab 1, Construction Materials Lab, & Senior Design.

Sep 2024 - Present
(currently on leave)

- Teaching, Curriculum Development, and Mentoring and Advising.
- Research, Service and Committee Work, and Professional Development.

Assistant Professor/ Mutah University

Karak, Jordan

Courses: Steel Structures, Structural Analysis, Statics, Eng. Economy, AutoCAD, Numerical Methods, Engineering Drawing, Surveying Lab 1, Construction Materials Lab, & Senior Design.

Aug 2019-Sep 2024

- Teaching, Curriculum Development, and Mentoring and Advising.
- Research, Service and Committee Work, and Professional Development.

Part-Time Instructor/ Tafila Technical University

Tafila, Jordan

Courses: Steel Structures.

Oct 2021-Feb 2022

- Teaching Steel Structures course and assessing student performance.
- Developing course materials and facilitating student learning.

Paper Grading, & Tutor/ University of North Dakota

Grand Forks, ND

Courses: Mechanics of Materials, Steel Design, Structural Mechanics, Dynamics, Statics, & Computer Applications.

2016 - 2019

- Preparation of course materials, including lecture materials and assignments.
- Grading assignments, homework, and quizzes.
- Providing one-on-one and group tutoring sessions.

Paper Grading & Tutor/ North Dakota State University

Fargo, ND

Courses: ARAB 101. Beginning Arabic I, ARAB 102. Beginning Arabic II.

Jan-May 2016

- Leading language activities like conversations and group tasks.
- Helping students improve reading, speaking, listening, and writing in Arabic.

Independent Tutor

Amman, Jordan

Engineering and Mathematics

Jan-June 2014

- Provided individualized tutoring in Engineering and Mathematics.
- Prepared students for exams through customized lectures and practice tests.
- Evaluated student achievements based on outcomes.

ADMINISTRATIVE ROLES/ MUTAH UNIVERSITY

- CEE Department Representative in the Engineering College Council. 2022/2023
- Engineering College Representative in the Mutah University Council. 2021/2022
- Principle Investigator - MSEL/Mutah University research project (\$250,000). 2022 - Present

INSTITUTIONAL SERVICES/ MUTAH UNIVERSITY

- Committee Head, Accreditation (ABET).
- Member, Students Council Elections 2024.
- Member, Cultural and Social Committee.
- Member, Course Equivalency Committee.
- Member, Distance Education Committee.
- Member, Quality Control Committee.
- Member, CEE Department Labs Development Committee.

ACADEMIC INVOLVEMENT

Reviewer

- ASCE Journals
- Engineering Structures (Elsevier).
- Structures (Elsevier).
- Results in Engineering (Elsevier).
- Innovative Infrastructure Solutions (Springer).
- KSCE Journal of Civil Engineering (Springer).
- Advances in Civil Engineering (Hindawi).
- Steel and Composite Structures (Techno Press).
- MDPI Journals (Fire & Applied Science).
- International Structural Engineering and Construction Conference.

TECHNICAL EXPERIENCE

Design Engineer-Part time

ND, USA

Wells Concrete

8/2018 - 5/2019

- Design, develop, and check precast concrete-steel connections.
- Review structural plans and do required calculations to ensure structural integrity.

Summer Engineering Internship

ND, USA

Wells Concrete

May-Aug 2018

- Creating and improving processes, documenting procedures, and SOPs.
- Assisting in reviewing complaints and resolving problems.
- Visiting sites to ensure proper installation of products.

Shayyar & Eng. Language Construction Companies

Amman, Jordan

Civil Engineer

Jan 2013-Jan 2014

- Coordinated project design and materials procurement.
- Demonstrated leadership as an Executive Engineer in construction.
- Managed work schedules and labor allocation to meet project deadlines.

WORKSHOPS

Teaching with Technology Seminar (28 hrs.)

ND, USA

Active learning, assessment, course management and design, grading, and preparing lectures.

May 2017

Interaction in Virtual Learning Environments (12 hrs.)

QRTA, Jordan

Effective E-Learning Design (15 hrs.)

Oct-Nov 2021

Entrepreneurship and Innovation

Orange, Jordan

Innovation, Advanced Entrepreneurship, and Change Management.

March 2023

- **Mutah University Training Programs**
Academic Leadership
Development of Experiential Educational Material
Research and Scientific Research Project Preparation
Modern Statistical Methods
E-learning

Karak, Jordan

Sep-Oct 2023

SKILLS

- ABAQUS
- ANSYS
- AutoCAD
- SAP2000
- 3D MAX
- RISA 3D
- ENERCALC
- MS Office (Word, Excel, PowerPoint, Outlook)
- Mathcad
- Bluebeam Revu
- English
- Arabic

PROFESSIONAL MEMBERSHIPS

- American Society of Civil Engineers (ASCE).
- Structural Engineering Institute (SEI).
- American Institute of Steel Construction (AISC).
- Canadian Society for Civil Engineering (CSCE).
- Jordanian Engineers Association (JEA).

PUBLICATIONS

- **Al-Kaseasbeh, Q.** (2024). "Investigating the fire resistance of corrugated steel columns". *Results in Engineering*, 21, 101687.
- Albarram, A., & **Al-Kaseasbeh, Q.** (2024). "Analysis of perforated corrugated steel columns subjected to bilateral cyclic loading". *International Journal of Protective Structures*, 20414196241235321.
- **Al-Kaseasbeh, Q.**, Al-Qaralleh, M., Mueller, T., Rawlinson, T. A., Riding, K. A., & Ferraro, C. C. (2024). "Numerical Analysis of At-Grade Crossing Rail Structure". *Results in Engineering*, 22, 102275.
- **Al-Kaseasbeh, Q.** (2023). "Analysis of hydrocarbon fire-exposed cold-formed steel columns". *Results in Engineering*, 20, 101400.
- T.K. Mueller, **Al-Kaseasbeh, Q.**, M. Al-Qaralleh, T.A. Rawlinson, K.A. Riding, C.C. Ferraro (2023). "Analysis of concrete tub at-grade railroad crossing by field instrumentation", *Case Stud. Constr. Mater.* 19.
- **Al-Kaseasbeh, Q.**, & Al-Qaralleh, M. (2023). "Valorization of hydrophobic wood waste in concrete mixtures: Investigating the micro and macro relations". *Results in Engineering*, 17, 100877.
- Albarram, A., and **Al-Kaseasbeh, Q.** (2023). "Performance of Corrugated-Plate-Shaped Bridge Piers under Uniaxial Loading". *KSCE Journal of Civil Engineering* 2023, 1–12.
- **Al-Kaseasbeh, Q.**, & Albarram, A. (2022). "Numerical evaluation of seismic performance of corrugated-plate shaped steel tubes". *Journal of Applied Engineering Science*, 20(2), 315-320.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2020). "Thin-Walled Steel Stiffened Square Box Columns with Uniform and Graded Thickness under Bidirectional Cyclic Loading". *Engineering Structures*, 219, 110919.

- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2019). "Buckling strength and ductility evaluation of thin-walled steel stiffened square box columns with uniform and graded thickness under cyclic loading". *Engineering Structures*, 186, 498–507.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2019). "Design and Cyclic Elastoplastic Analysis of Graded Thin-Walled Steel Tubular Columns with Enhanced Strength and Ductility". *International Journal of Modern Engineering (IJME)*, 19(1), 30–36.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2019). "Thin-Walled Steel Tubular Circular Columns with Uniform and Graded Thickness under Bidirectional Cyclic Loading". *Thin-Walled Structures*, 145, 106449.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2018). "Buckling Strength and Ductility Evaluation of Thin-Walled Steel Tubular Columns with Uniform and Graded Thickness under Cyclic Loading". *Journal of Bridge Engineering*, 24(1), 04018105.
- **Al-Kaseasbeh, Q.**, Lin, Z., Wang, Y., Azarmi, F., and Qi, X. (2018). "Electrochemical Characterization of Steel Bridge Welds under Simulated Durability Test". *Journal of Bridge Engineering*, 23(10), 04018068.
- Lin, Z., Azarmi, F., **Al-Kaseasbeh, Q.**, Azimi, M., and Yan, F. (2015). "Advanced Ultrasonic Testing Technologies with Applications to Evaluation of Steel Bridge Welding - An Overview". *Applied Mechanics and Materials*, 727–728, 785–789.
- **Al-Kaseasbeh, Q.** (2021). "Comparative numerical study of circular-shaped steel tubes subjected to cyclic horizontal loading". In *Lecture Notes in Civil Engineering* (Vol. 110, pp. 167–175). Springer, Singapore.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2019). "Thin-Walled Steel Tubular Columns with Uniform and Graded Thickness under Cyclic Loading". In *Interdependence Between Structural Engineering and Construction Management*. Chicago, Illinois.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2019). "Performance of Thin-Walled Steel Tubular Circular Columns with Graded Thickness under Bidirectional Cyclic Loading". *Structures Congress 2019*. Orlando, FL: American Society of Civil Engineers, P. 1-10.
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2018). "Design and Cyclic Elastoplastic Analysis of Graded Thin-Walled Steel Tubular Columns with Enhanced Strength and Ductility". In *6th IAJC International Conference*. Orlando, Florida. (**"Best Graduate Paper" Award**).
- **Al-Kaseasbeh, Q.**, and Mamaghani, I. H. P. (2018). "Buckling Strength and Ductility Evaluation of Thin-Walled Steel Tubular Columns Under Cyclic Loading". In *10th International Conference on Short and Medium Span Bridges*. Quebec City, Canada.
- Lin, Z., Yan, F., Azimi, M., Azarmi, F., and **Al-Kaseasbeh, Q.** (2015). "A Revisit of Fatigue Performance Based Welding Quality Criteria in Bridge Welding Provisions and Guidelines". In *2015 International Industrial Informatics and Computer Engineering Conference* (pp. 2042–2046). Atlantis Press.

REFERENCES

- Dr. Nabil Suleiman, Civil Engineering, Associate Professor, UND, nabil.suleiman@und.edu.
- Dr. Anjali Sandip, Mechanical Engineering, Assistant Professor, UND, anjali.sandip@und.edu.