

## **QUSAY A. AL-KASEASBEH**

**Mutah University, Al-Karak, Jordan, 61710**

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### **BIO**

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Dr. Qusay Al-Kaseasbeh, an Assistant Professor in the Department of Civil and Environmental Engineering at Mutah University. With a Ph.D. in Civil Engineering from the University of North Dakota (2019) and a M.Sc. from North Dakota State University (2016). Prior to his academic career, Dr. Al-Kaseasbeh worked as a Structural Design Engineer at Wells Concrete in the United States.

### **EDUCATION**

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<b>University of North Dakota</b> PhD degree in Civil Engineering, Minor: Steel Structures. GPA: 4.0/4.0	<b>ND, USA</b> May '19
<b>North Dakota State University</b> Master of Science degree in Civil Engineering, Minor: Steel Structures. GPA: 4.0/4.0	<b>ND, USA</b> May '16
<b>Mutah University</b> Bachelor of Science Degree in Civil Engineering. GPA: 3.72/4.0 (Overall assessment: Excellent)	<b>Karak, Jordan</b> Jan '13
<b>Ayy Secondary School</b> High School Certificate. GPA: 92.1/100 (Scientific Stream)	<b>Karak, Jordan</b> August '08

### **RESEARCH INTERESTS**

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

### **RESEARCH GRANTS**

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

### **SCHOLARSHIPS**

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

### **AWARDS**

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

### **PROFESSIONAL RESEARCH PROFILES**

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

## **TEACHING EXPERIENCE**

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### **Assistant Professor/ Mutah University**

**Karak, Jordan**

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

Aug '19 to Present.

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

### **Paper Grading, & Tutor/ University of North Dakota**

**Grand Forks, ND**

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

May '16 – May '19

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

### **Independent Tutor**

**Amman, Jordan**

#### **Engineering and Mathematics**

Jan-June '14

- 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**

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**Karak, Jordan**

- CEE Department Representative in the Engineering College Council. '22 to '23
- Engineering College Representative in the Mutah University Council. '21 to '22
- Principle Investigator - MSEL/Mutah University research project (\$250,000). '22 to Present.

## **INSTITUTIONAL SERVICES/ MUTAH UNIVERSITY**

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- Committee Head, Accreditation (ABET).
- 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**

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### **Reviewer**

- ASCE Journals
- Engineering Structures (Elsevier).
- Results in Engineering (Elsevier).
- Innovative Infrastructure Solutions (Springer).
- Advances in Civil Engineering (Hindawi).
- Steel and Composite Structures (Techno Press).
- International Structural Engineering and Construction Conference.

## **TECHNICAL EXPERIENCE**

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### **Design Engineer-Part time**

**ND, USA**

#### **Wells Concrete**

Aug '18-May '19

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

## Summer Engineering Internship

### Wells Concrete

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

ND, USA

May-Aug '18

## Shayyar & Eng. Language Construction Companies

### Civil Engineer

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

Amman, Jordan

Jan '13-Jan '14

## WORKSHOPS

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- **Teaching with Technology Seminar (28 hrs.)**  
Active learning, assessment, course management and design, grading, and preparing lectures.

ND, USA

May '17

- **Interaction in Virtual Learning Environments (12 hrs.)**
- **Effective E-Learning Design (15 hrs.)**

QRTA, Jordan

Oct-Nov '21

- **Entrepreneurship and Innovation**  
Innovation, Advanced Entrepreneurship, and Change Management.

Orange, Jordan

March '23

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

## SKILLS

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

## PROFESSIONAL MEMBERSHIPS

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- 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

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- **Al-Kaseasbeh, Q.** (2024). "Investigating the fire resistance of corrugated steel columns". *Results in Engineering*, 21, 101687.
- **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.**, Al-Qaralleh, M., Mueller, T., Rawlinson, T. A., Riding, K. A., & Ferraro, C. C. (2024). "Numerical Analysis of At-Grade Crossing Rail Structure". *Case Stud. Constr. Mater.* **Under Review**.
- Albarram, A., & **Al-Kaseasbeh, Q.** (2024). "Analysis of Perforated Corrugated Steel Columns Subjected to Bilateral Cyclic Loading. *International Journal of Protective Structures*". (**Accepted**).
- **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

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- Dr. Nabil Suleiman, Civil Engineering, Associate Professor, UND, [nabil.suleiman@und.edu](mailto:nabil.suleiman@und.edu).
- Dr. Mijia Yang, Civil Engineering, Associate Professor, NDSU, [mijia.yang@ndsu.edu](mailto:mijia.yang@ndsu.edu).
- Dr. Anjali Sandip, Mechanical Engineering, Assistant Professor, UND, [anjali.sandip@und.edu](mailto:anjali.sandip@und.edu).