

Mona Shaheen

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EDUCATION

Ph.D. in Civil Engineering, The University of Kansas (KU) **January 2023 - Present**

Expected date of graduation: December 2026

- **Core modules:** Computer Vision, Machine Learning, Optimal Estimation, Optimization.
- **Research Project:** Titled Vibration Mitigation of High Mast Illumination Poles (HMIPs).

Research goals: Testing the developed damper in the lab and implementing it in the field to test its effectiveness in reducing the HMIP vibrations due to wind

MSc. in Civil Engineering, The University of Kansas (KU) **August 2020 – December 2022**

Graduated with honors GPA of 3.90/4.00

- **Core modules:** Dynamic and Vibrations, Structural Vibrations and Modal Testing, Advanced Structural Dynamics, Matrix Analysis, Digital Signal Processing, Pres-stressed Concrete, and Introduction to Fracture Mechanics.
- **Research Project:** Titled Numerical Investigation of a Vibration Mitigation Device and Wind-induced Vibration Monitoring of High Mast Illumination Poles

Phase 1: Monitoring wind-induced vibration and data collection using wireless smart sensors to determine the primary cause of excessive wind vibration, which caused cracks near the hand hole of newly installed HMIPs.

Phase 2: Designing a damper using Abaqus CAE software to reduce the vibration and assessing the effectiveness of the designed damper by monitoring the retrofitted. HMIP.

- **Notable learning experience:**
 - Developed hands-on experience in testing, preparing, and installing a full wireless sensor network for a real-world monitoring project.
 - Gained Knowledge in wind hazard mitigation

BSc. in civil engineering, Jordan University of Science and Technology (JUST), Irbid, Jordan **September 2012 – January 2017**

Very good average, 78.2% (equivalent to GPA: 3.11). Ranked within the top 13% of students in the department.

- **University Qualifications**
 - Jordan University of Science and Technology is ranked among the top 400 universities worldwide according to The World University Ranking and number 16 in the Arab region according to QS World University Rankings.
 - BSc Civil Engineering program is officially accredited by the American Accreditation Board for Engineering and Technology (ABET), which is the recognized accreditor for engineering programs in the US and 32 other countries.

- **Core modules:** Statics, Mechanics of Materials, Structural Analysis I & II, Soil Mechanics, Foundation Engineering, Design of Reinforced Concrete Structures I& II, Design of Steel Structures, Advanced Steel Design, Dynamic Analysis for Structures, Building Construction, Engineering Management, and Construction Materials. *Optional Modules: water resources.*

- **Graduation Project:** Designing and modeling a concrete commercial building with many irregularities and architectural details regarding seismic provisions using the (UBC-1997) code.

WORK EXPERIENCE

Structural Engineer – Design Department **August 2018 – June 2020**
Arab Engineering Services & Consultation (ARABESC), Nablus, Palestine

Designing several residential and commercial RC structures

- Main duties are modeling, analyzing, and designing reinforced concrete structures using modern software such as ETABS, preparing plans, drawings, and structural details for structural members.
- Frequently go for site visits and do some site inspections.

Office Engineer within the site supervision team **July 2017 – August 2018**
Arab Engineering Services & Consultation (ARABESC), Nablus, Palestine

Worked as an office engineer on a school construction management project, adopting high standards of safety, quality, and technical details. Work duties included:

- Assisting in tracking, planning, time scheduling, and doing a feasibility study for the project using Primavera.
- Conducting site inspections, as well as attending site and office meetings and preparing meeting minutes

RELEVANT VOLUNTEER WORK

High School Design Competition **May 2023 – October 2023**

Participated in organizing the high school design competition in the field of civil engineering.

KUbe SAT **May 2021 – August 2021**

Perform modal testing for satellite parts before launching the satellite into space.

- Developed critical thinking and built knowledge while working with aerospace engineers on the KUbe sat project.

Association Internationale des Etudiants en Sciences Economiques (AIESEC) **May 2015 – September 2016**

Volunteered with a non-profit organization that aims to develop youth leadership skills through exchange programs. Roles included:

- Team leader of Incoming Exchange (March 2016-September 2016):
 - Responsible for project planning, proposal writing, budgeting, and sponsor outreach.
- Team Leader of Outgoing Exchange Team (September 2015-March 2016):
 - Planning for long-term and short-term team goals to boost exchange rates, task delegation, and team training to ensure the team's readiness and motivation for optimal performance.
- Vice President for AIESEC National Annual Conference (September 2015–October 2015):
 - Planned conference logistics, including venue, speakers, subjects, and activities.
- Outgoing Exchange Team Member (May 2015-September 2015):
 - Conducted interviews, selected exchange participants, and ensured their thorough pre-travel preparation.

KING ABDULLAH II FUND FOR DEVELOPMENT (KAFD) **January 2015 – April 2015**

Organizing and planning for different events, which KAFD ran, such as the job fair day.

COURSES and CERTIFICATES

ETABS course **April 2018 – May 2018**

Korean Palestinian IT Center, Al-Najah National University, Nablus, Palestine

30 credit hours in using ETABS for structural designing

Primavera course **May 2018 – June 2018**

Korean Palestinian IT Center, Al-Najah National University, Nablus, Palestine

30 credit hours in using software in project planning and management, also controlling project activities and recourses effectively.

Environmental Impact Assessment Course**April 2018****Engineers Association and Environment Quality Authority, Nablus, Palestine**

10 credit hours in a course about environmental problems related to construction and buildings in Palestine to limit and prevent them from occurring. In addition, the course introduced the administrative framework, regulations, and policies governing environmental impact assessment in Palestine.

Water in the Arid Land course**August 2016 – Sept 2016****Jordan University of Science and Technology (JUST), Irbid, Jordan**

Selected for a competitive intensive summer course program between JUST and the University of Washington (U.W) in Jordan, which discussed the engineered water cycle in Jordan as a case study of water management in an arid land.

PUBLICATIONS & CONFERENCES

- Mona Shaheen, Jian Li, Sdiq Anwar Taher, Caroline Bennett, and William Collins, [Wind-induced vibration monitoring of high mast illumination poles], Society of Photo-Optical Instrumentation Engineers (SPIE), Long Beach, California, USA (2022).
- Sdiq Anwar Taher, Jian Li, Jong-Hyun Jeong, Simon Laflamme, Hongki Jo, Caroline Benne, William Collins, Han Liu, Austin Downey, and Mona Shaheen, [Long-term field monitoring of fatigue cracks for steel bridges with wireless large-area strain sensors], Society of Photo-Optical Instrumentation Engineers (SPIE), Long Beach, California, USA (2022).

AWARDS

- May 2020, Fulbright Foreign Student Program grantee to study MSc in Civil Engineering at the University of Kansas (KU), United States.

COMPUTER SKILLS

- Professional user of Abaqus, MATLAB, SAP 2000, and ETABS RC structures. Very good user of Primavera for project planning, feasibility study, and calculating cost-efficiency.
- Professional user of AutoCAD and Microsoft Office package (Word, Excel, PowerPoint, and Outlook).

LANGUAGES

- **Arabic** Native
- **English** Professional working proficiency
TOEFL score 93, test date: May 02, 2020
IELTS score 6.5, test date: August 01, 2019
- **French** Limited working proficiency
DELF level B1

REFERENCES

Available upon request