

## Dr. MAHA ALQAM

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**Academic Rank:** Associate Professor  
**Address:** Department of Civil Engineering  
School of Engineering  
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### EDUCATION

- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**  
Ph.D., Civil Engineering (Structures). Spring 97 – Summer 03. GPA: 3.86/4.0.
- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**  
MS, Civil Engineering (Structures). Spring 95 – Fall 96. GPA: 3.83/4.0.
- **JORDAN UNIVERSITY OF SCIENCE & TECHNOLOGY, IRBID, JORDAN**  
BS, Civil Engineering (Structures). Fall 88 – Fall 93. Rank: 4<sup>th</sup> among graduated students of 1992/1993 academic year.

### PROFESSIONAL EXPERIENCE

- **THE UNIVERSITY OF JORDAN, AMMAN, JORDAN**      **SEP. 2006 – PRESENT**  
Associate Professor, Department of Civil Engineering (Structures).
- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**      **SEP. 2000 – AUG. 2003**  
Research Assistant  
Conducting analytical probabilistic based design for structural members of fiber-reinforced polymeric (FRP) composite materials. Developing resistance factors in an LRFD format as a function of coefficient of variation of the appropriate material properties.
- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**      **AUG. 1999 – AUG. 2003**  
Teaching Assistant  
Teaching MATLAB, Mechanical Desktop (AutoCAD) software packages, Statics and Dynamics.
- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**      **JAN. 1998 – MAY 2000**  
Research Assistant  
Detecting the size and location of simulated defects in a plate from anomalies in piezogenerated elastic waves propagation. The NSF supported this project. The grant expired Sep. 1998.
- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN**      **JAN. 1996 – JULY 1999**  
Computer Lab Assistant  
Helping students with hardware and software problems.

- **THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TN OCT. 1996 – JUNE 1997**

Research Assistant

- Operating JAC2D (a two-dimensional finite element code for nonlinear quasi-static response of solids with conjugate gradient method).
- Operating JAS3D (a three-dimensional nonlinear finite element and multi-strategy iterative code for solid mechanics analysis).
- Documenting example problems.

**PROFESSIONAL SERVICES**

**Referee for the Following Journals:**

- ACI Materials Journal.
- ACI Structural Journal.
- Journal of Engineering Mechanics, ASCE.
- Construction and Building Materials.
- Dirasat; Research Journal for Natural and Engineering Sciences.

**COURSES TAUGHT AT THE UNIVERSITY OF JORDAN**

**Undergraduate Courses:**

- Statics
- Strength of Materials
- Structural Analysis
- Properties of Concrete
- Properties of Concrete Lab.
- Reinforced Concrete
- Final Year Project

**Graduate Courses:**

- Prestressed Concrete
- Bridge Engineering

**PUBLICATIONS**

- Nasim Shatarat, Hasan Kadkhuda, Mu'tasim Abdel-Jaber, and Maha Alqam "Experimental investigation of reinforced concrete beams with spiral reinforcement in shear", *Construction and Building Materials*, Vol. 125 (2016), 585-594.
- Mohammad K. Alkam and Maha Alqam "Prediction of the Service Life of a Reinforced Concrete Column under Chloride Environment", *Advances in Materials Science and Engineering*, Vol. 2015.
- Maha Alqam and Mohammad K. Alkam "Temperature and Moisture Distribution Inside a Circular Concrete Column during the Early Stages of Hydration", *Canadian Journal of Civil Engineering*, Vol. 41. No. 6 (2014), 559-568.
- Maha Alqam "Transient Chloride-Ion Diffusion in a Homogeneous Concrete Column", *The Arabian Journal for Science and Engineering, AJSE*, Vol. 39. No. 5 (2014), 3633-3640.

- Maha Alqam, Ahmad Jamrah, Bayan Abd Al-Hafith, Razan Al-Zubi, and Nawar Al-Shamar "Fresh and Hardened Properties of Sustainable Concrete Using Recycled Household Greywater", *The Arabian Journal for Science and Engineering, AJSE*, Vol. 39. No. 3 (2014), 1701-1708.
- Maha Alqam "Potential Reuse of Electric-Arc Furnace Dust (EAFD) in Concrete", *Jordan Journal of Civil Engineering*, Vol. 6. No. 2 (2012), 174-185.
- Maha Alqam, Ahmad Jamrah, and Haya Daghlas "Utilization of Cement Incorporated with Water Treatment Sludge", *Jordan Journal of Civil Engineering*, Vol. 5. No. 2 (2011), 268-277.
- Malek Abu Rumman, Mohammad Hiyassat, Bashar Alsmadi, Ahmad Jamrah, and Maha Alqam "A surface water management model for the integrated Southern Ghor project, Jordan", *Construction, Innovation: Information, Process, Management*, Vol. 9. No. 3 (2009), 298-322.
- Maha Alqam, Richard M. Bennett, and Abdul-Hamid Zurieck "Probabilistic Based Design of Concentrically Loaded Fiber-Reinforced Polymeric Compression Members", *Journal of Structural Engineering, ASCE*, Vol. 130. No. 12 (2004), 1914-1920.
- Maha Alqam, Richard M. Bennett, and Abdul-Hamid Zurieck "Three-Parameter vs. Two-Parameter Weibull Distribution for Pultruded Composite Material Properties", *Composite Structures*, Vol. 58 (2002), 497-503.

### **REPORTS**

- "Determination of Material Property Characteristic Values of Fiber-Reinforced Polymeric Composites". Prepared for Federal Highway Administration (U.S.A.) (January 2003).

### **MEMBERSHIPS AND ASSOCIATIONS**

- Member of the Jordanian Engineering Association (JEA).

### **COMPUTER SKILLS**

Knowledgeable in different operating systems, MacOS, UNIX, and Windows. Computer skills includes programming using FORTRAN and VISUAL BASIC. Knowledgeable in computer aided design tools and familiar with the following software packages and their applications:

- JAC2D (a two dimensional nonlinear finite element code), JAS3D (a three dimensional nonlinear finite element code), and FASQ (a mesh generator).
- COSMOS, GTSTRUDL, STAAD3D, and SAP2000.
- MATLAB, AutoCAD 2012, Mechanical Desktop (AutoCAD), Mathematica, and SAS.
- Microsoft office: MS Word, MS Excel, and MS PowerPoint.

### **LANGUAGES**

- Arabic (Mother Tongue)
- English