

Omar J. Al-Khatib, M.S., Ph.D.

P.O. BOX 15551 Al Ain • UAE

E-mail: omar.alkhatib@uaeu.ac.ae

Phone: 0508399378

EDUCATION

2004 – 2006 Tennessee Technological University Cookeville, TN

Doctor of Philosophy in Civil Engineering / Structural Mechanics

Thesis: Vibration of Paraboloidal Shells

2000 – 2001 Tennessee Technological University Cookeville, TN

Master of Science in Civil Engineering / Structures Engineering

Thesis: Lagrangian Finite Element for Thin Walled Structures.

1993 – 1999 Tennessee State University Nashville, TN

Bachelor of Science in Civil Engineering

Minors: Biology, Chemistry

EXPERIENCE AND PROFESSIONAL DEVELOPMENT

08/2011- Present Emirate of Abu Dhabi – Judicial Department - UAE

Sworn Expert Witness

08/2011- Present United Arab Emirates University – Al Ain, United Arab Emirates

Assistant Professor of Structural Engineering – Department of Architectural Engineering

08/2007- 5/2011 Tennessee State University - Nashville, TN

Adjunct Professor of Civil & Environmental Engineering

08/2007- 12/2007 Cumberland University - Lebanon, TN

Adjunct Professor of Mathematics

06/ 2007- 09/2007 Tennessee Department of Environment & Conservation - TN

Engineering Protection Specialist

02/2007- Present Tennessee State University - Nashville, TN

Academic Consultant: Advisory Committee of the Graduate Structural Engineering Program

05/2006- 06/2009 US Engineering & Consulting - Nashville, TN

Consultant Engineer

08/2004-12/2006 Tennessee Technological University - Cookeville, TN

Graduate Research Assistant, Department of Civil and Environmental Engineering

04/2004-07/2004 Tennessee State University - Nashville, TN
Mathematics instructor and Lab Supervisor, Department of Development and Enrichment Studies
07/2002-04/2004 US Engineering & Consulting - Nashville, TN
Construction Engineer

06/2002-06/2002 Kuwait Oil Company - Al-Ahmadi, Kuwait
Engineer in Training

01/1997-12/1999 Tennessee State University - Nashville, TN
Undergraduate Teaching Assistant, Department of Civil and Environmental Engineering

RESEARCH INTEREST/SPECIALTY

- Structural Mechanics: vibration of continuum media, finite element analysis, and energy variational methods.
- Structural Engineering: structural analysis, computer application in structures, reinforced concrete design, structural steel design, prestressed concrete design, bridge design, stress analysis.
- Geotechnical Engineering

COURSES TAUGHT

Undergraduate Courses

- Structural Systems & Steel Design for Architect - UAEU
- Intermediate Building Design Studio - UAEU
- Introduction to Ethics and Design - UAEU
- Numerical Analysis (Fall 2009, 2008)
- Steel Design (LRFD & ASD Methods)
- Reinforced Concrete Design (ACI 318-08 Code)
- Engineering Mechanics II: Dynamics
- Soil Mechanics (Fall 2008, 2009)
- Foundation Engineering
- Soil Mechanics Laboratory (Fall 2008, 2009)
- Mechanics of Materials (Spring 2010)
- Mechanics of Materials Laboratory

Graduate Courses

- Advance Reinforced Concrete Design
- Advance Steel Design (LRFD & ASD Methods)
- Advance Indeterminate Structures
- Finite Element Analysis
- Advance Foundation Engineering (Spring 2009)
- Bridge Design (Spring 2009)
- Matrix Analysis of Structures (Fall 2010)

Potential Courses

- Structural Analysis
- Structural Dynamics
- PE/FE Exams Review Courses
- Prestressed Concrete
- Theory of Plates & Shells

PUBLICATIONS

Journals:

- Al-Khatib, Omar J., Buchanan, George R., Free vibration of a paraboloidal shell of revolution including shear deformation and rotary inertia I: Theory and Results for Closed Shells, *Thin-Walled Structures* 2010; 48:223–232

In Preparation:

- Buchanan, George R., Al-Khatib, Omar J, Free vibration of a paraboloidal shell of revolution including shear deformation and rotary inertia II: Open Shells, *Thin-Walled Structures*
- Al-Khatib, Omar J., Buchanan, George R., Free vibration of thick-walled paraboloidal shells I: Theoretical concepts and closed shells, *International Journal of Mechanical Sciences*
- Al-Khatib, Omar J., Buchanan, George R. Free vibration of thick-walled paraboloidal shell II: Open Shells, *International Journal of Mechanical Sciences*.

Books:

In Preparation:

- Al-Khatib, Omar J., Introduction to Engineering Ethics

Laboratory Manuals:

- Mechanics of Materials Laboratory Manual (Published)
- Soil Mechanics Laboratory Manuals (In Progress)

PROFESSIONAL ACTIVITY & REASEARCH

1. **Shear Wall Design and Analysis:** A joint research proposal with University of California (Berkeley) and University of Tennessee (Knoxville)
2. **Structural Health Monitoring:** In progress research with Department of Physics at Tennessee State University.
3. **Geotechnical Engineering:** Improved techniques of compaction and numerical modeling of soil properties.
4. **Static analysis** of closed/open thin paraboloidal shells in paraboloidal (ϕ, ψ, s) coordinates.

SKILLS

- AutoCAD 2006
- Programming: FORTRAN
- Structural Analysis: RISA 2D – STAAD PRO - ANSYS – SAP2000
- MathCAD Professional 12 – Maple

HONORS / AWARDS

- National Golden Key award
- Certified Engineer-in-Training (EIT): License No. 20283

Professional Societies

- American Society of Civil Engineers
- Structural Steel Institute