

## **Dr. Monther Dwaikat**

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### **CURRENT POSITION**

**Assistant Professor, Building Engineering Department, An- Najah National University, September 2009 – Present.**

### **EDUCATION**

- Michigan State University, Ph.D. Structural Engineering (GPA - 4.0), 2005-2009.  
**Courses Taken:** Reliability - Based Design, Advanced Concrete Materials, Fire Engineering, and Finite Element Method (Audited).  
**Research Topic:** Flexural Behavior of Rectangular Reinforced Concrete Beams under Fire Conditions.
- University of Manchester Institute for Science and Technology, U.K., 2003-2004  
MSc. (Hons) Structural Engineering (Distinction and Topper in the department).  
**Courses Taken:** Covered the full range of structural engineering including Advance Theory of Structures (include plastic and yield line theories), Stability and Dynamics, Fire Engineering, Foundation for Structures, Reinforced Concrete Structures, Earthquake Engineering, Ground Engineering, and Materials for Structures.  
**Master Dissertation:** Curvature Ductility of Reinforced Concrete Sections under Axial Compression and Biaxial Bending.
- An-Najah National University, West Bank, BSc. (Hons) Civil Engineering (Average 97.1% and Top most in the University), 1998-2003.  
**Areas Covered:** Technical modules covered a full range of Civil Engineering with a focus on structural engineering and concrete structures.

### **WORK EXPERIENCE**

- Assistant Professor, Building Engineering Department, An- Najah National University, September 2009 – Present.
- Instructor, Civil and Environmental Engineering Department, Michigan State University. Teaching CE 406 "Design of Concrete Structures", January 2008 – May 2008.
- Instructor: An-Najah National University; Building Engineering department, An-Najah National University. Teaching courses related to Structural Engineering (including concrete design courses). Research skills developed, 2004- 2005.

### **ADDITIONAL CAREER EXPERIENCE - PART TIME**

- Visiting Research Associate, Civil and Environmental Engineering Department, Michigan State University, US, May 2009- July 2009.

- Instructor, Civil and Environmental Engineering Department, Michigan State University. Teaching CE 406 “Design of Concrete Structures”, January 2008 – May 2008.
- Teaching Assistant, Civil and Environmental Engineering Department, Michigan State University, US, August 2007- January 2008.

## **COMPUTER SKILLS**

- Excellent user for Microsoft Office, AutoCAD, SAP2000, LUSAS.
  - Experience in programming using FORTRAN and VISUAL BASIC.
  - Developing FE based computer model for nonlinear analysis of rectangular reinforced concrete beams exposed to fire.
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## **AWARDS**

- **Fitch Beach Award (first place)**, College of Engineering, MSU, Mar. 2009.
  - **Distinguished Outstanding Graduate Award** from the Civil and Environmental Engineering Department at MSU Mar. 2008.
  - **Nordberg Fellowship** from the Civil and Environmental Engineering Department at MSU Mar. 2007.
  - **Department Prize from the Civil Engineering Department** at UMIST Dec. 2004.
  - **Hani Qaddumi Foundation Scholarship** Sep. 2003 – Oct. 2004.
  - **An-Najah National University Prize** (top of the university prize) Jul. 2003.
  - **Palestinian Ministry of Education Scholarship for Top Ten Students in the Secondary School Certificate Examination** (I was ranked as the fifth student in West Bank), Sep. 1998-Mar. 2003.
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## **COURSES TAUGHT:**

### **BACHELOR COURSES:**

- Reinforced Concrete Structures I
- Reinforced Concrete Structures II
- Reinforced Concrete Structures III
- Design of steel structures
- Structural Analysis I
- Structural Analysis II
- Modern Structural Systems

## **PUBLICATIONS**

### **REFEREED JOURNALS:**

- Dwaikat M.B. and Kodur V.K.R, Closure to “Response of Restrained Concrete Beams under Design Fire Exposure”, ASCE Journal of Structural Engineering, Vol. 137, No. 4, 2011.
- Haider S.W., and Dwaikat M.B., Estimating Optimum Timings for Preventive Maintenance Treatments to Mitigate Pavement Roughness, Maintenance and Preservation of Pavements, Journal of the Transportation Board, TRB, No. 2235, 2011
- Haider S.W., Harichandran R.S. and Dwaikat M.B., Effect of Axle Load Measurement Errors On Pavement Performance and Design Reliability, Data System and Travel Survey Methods, Journal of the Transportation Board, TRB, No. 2160, 2010.
- Dwaikat M.B., and Kodur V.R., Fire Induced Spalling in High Strength Concrete Beams, Journal of Fire Technology, Vol. 46, pp. 251–274, 2010.
- Dwaikat M.B., and Kodur V.R., Hydrothermal Model for Predicting Fire Induced Spalling in Concrete Structural Systems, Fire Safety Journal, Vol. 44, No. 3, pp. 425-434, 2009.
- Dwaikat M.B., and Kodur V.R., Response of Restrained Reinforced Concrete Beams under Design Fire Scenarios, ASCE Journal of Structural Engineering, Vol. 135, No. 11, pp. 1408-1417, 2009.
- Kodur V.R., Dwaikat M.B., Raut N., Macroscopic FE Model for Tracing the Fire Response of Reinforced Concrete Structures, Engineering Structures, Vol. 31, No. 10, pp. 2368-2379, 2009.
- Kodur V.R., and Dwaikat M.B., Effect of Fire Induced Restraint on Fire Resistance of Reinforced Concrete Beams, Journal of Structural Fire Engineering, Vol. 1, No. 2, pp. 73-88, 2009.
- Haider S.W., Harichandran R.S., and Dwaikat M.B., Closed-Form Solutions for Bimodal Axle Load Spectra and Relative Pavement Damage Estimation, Journal of Transportation Engineering, Vol. 135, No. 12, pp. 974-983, Dec. 2009.
- Dwaikat M.B., and Kodur V.R., A Numerical Approach for Modeling the Fire Induced Restraint Effects in Reinforced Concrete Beams, Fire Safety Journal, Vol. 43, No. 4, pp. 291-307, 2008.
- Kodur V.R., and Dwaikat M.B., Flexural Response of Reinforced Concrete Beams Exposed to Fire, Journal of Structural Concrete, FIB, Vol. 9, No. 1, pp. 45-54, 2008.
- Kodur V.R., and Dwaikat M.B., Effect of Fire Induced Spalling on the Response of Reinforced Concrete Beams, International Journal of Concrete Structures and Materials, Vol. 2, No. 2, pp. 71-81, 2008.
- Kodur V.R., Dwaikat M.M.S., and Dwaikat M.B., High-Temperature Properties of Concrete for Fire Resistance Modeling of Structures, ACI Materials Journal, Vol. 105, No. 5, pp. 517-527, 2008.
- Dwaikat M.B., and Kodur V.R., Comparisons of Fire Resistance of RC Beams from Different Codes of Practice, ACI SP-255, Designing Concrete Structures for Fire Safety, Nov. 2008.
- Kodur V.R., and Dwaikat M.B., Performance-Based Fire Safety Design of Reinforced Concrete Beams, Journal of Fire Protection Engineering, Vol. 17, No. 3, pp. 293-320, 2007.
- Kodur V.R., and Dwaikat M.B., A Numerical Model for Predicting the Fire Resistance of Reinforced Concrete Beams, Cement & Concrete Composites, Vol. 30, No. 5, pp. 431-443, 2007.

#### **REFEREED CONFERENCES:**

- Haider S.W., and Dwaikat M.B., Estimating Optimum Timings for Maintenance Treatments to Alleviate Pavement Surface Rutting, Accepted for Presentation and Publication at the 91st Annual Meeting of TRB, Washington D.C., 2012.

- Kodur V.R., Dwaikat M.B., and Raut N., Macroscopic Finite Element Models for Tracing the Response of Concrete Structures under Fire Conditions, Proceedings: Fire Design of Concrete Structures, FIB, Coimbra, Portugal, pp. 327-341, 2007.
- Kodur V.R., and Dwaikat M.B., Fire Performance of Reinforced Concrete Beams under Design Fire Exposure, CD Proceedings: ASCE Structures Congress, 2008.
- Dwaikat M.B., and Kodur, V.R., Effect of Fire Scenario and Restraint Conditions on the Behavior of RC Beams, Proceedings: The 5th International Conference on Structures in Fire, Singapore, pp. 369-379, 2008.
- Kodur V.R., Ahmed A., and Dwaikat M.B., Modeling the Fire Performance of FRP-strengthened Reinforced Concrete Beams, Accepted in Composite & Polycon, American Composites Manufacturers Association, Tampa, FL, USA, 2009.

#### **PRESENTATIONS**

- Dwaikat M.B., and Kodur V.R., A Numerical Model for Predicting the Fire Behavior of Reinforced Concrete Beams. ACI Spring Convention, Atlanta, USA, 2007.
- Dwaikat M.B., and Kodur V.R., Experimental Studies on the Response of Restrained RC Beams Exposed to Design Fires, St. Louis, USA, 2008.
- Kodur V.R., Dwaikat M.B., and Raut N., Macroscopic Finite Element Models for Tracing the Response of Concrete Structures under Fire Conditions, FIB workshop "Fire Design of Concrete Structures", Coimbra – Portugal, November 2007.

#### **REFREED REPORTS**

- Dwaikat M.B., Phan L., and Kodur V.R., A Simplified Approach to Account for Spalling in Reinforced Concrete Members, NIST Report, Submitted to BFRL, NIST, Gaithersburg, 2007.

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#### **REFERENCES**

Available upon request

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