

## Curriculum vitae of Dr. Amin H. Almasri

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**Date of birth**  
18/Nov/1979

**Marital status**  
Married

**Citizenship**  
Jordanian

### Educational Background

<b><u>Degree</u></b>	<b><u>Field</u></b>	<b><u>Institution</u></b>	<b><u>Date received</u></b>
Ph.D.	Civil Engineering <i>Ph.D. Dissertation: Dynamic Shear Bands in Metals under High Strain Rates</i>	Louisiana State University	May 2008
M.Sc.	Civil Engineering <i>M.Sc. Thesis: Effect of material nonlinearity on failure progress in laminated fibrous composite shells using finite element method</i>	Jordan Uni. of Sci. & Tech	June 2004
B.Sc.	Civil Engineering	Jordan Uni. of Sci. & Tech	Sep 2001

### Employment History

- Associate professor, September 2016 – current, Department of Civil Engineering, Fahad Bin Sultan University, Tabuk, Saudi Arabia.
- Associate professor, January 2015 – September 2016, Department of Civil Engineering. Jordan University of Science and Technology. Jordan.
- Assistant professor, September 2009 – January 2015, Department of Civil Engineering. Jordan University of Science and Technology. Jordan.
- Lecturer, September 2008 – September 2009, Department of Civil Engineering. Tafila Technical University. Jordan
- Graduate Research Assistant, August 2004 – May 2008, Louisiana State University, USA
- Site Engineer, August 2003 – August 2004, Penta Group for Engineering and Construction (Jordan).
- Graduate Teaching Assistant, June 2002 – January 2004, Jordan University of Science and Technology

- Graduate Research Assistant, November 2001 – January 2003, Jordan University of Science and Technology
- Software Developer, August 2001 – July 2004, Developing a computer package for steel structures analysis and design.

### Research Experience

- Simulating the behavior of composite structures and elements using in-house software.
- Simulating the behavior and response of full scale concrete structures and steel structures, using different types of finite element computer softwares, like ANSYS and ABAQUS Packages, under different loading conditions such as static, dynamic, thermal, and seismic.
- Excellent experience with the Analysis and Design of Buildings and structures utilizing commercial computer softwares such as Sap 2000 and Staad Pro 2005, Prokon.
- Simulating and modelling damage and plasticity behavior of concrete elements.
- Performing nano indentation experimental testing of different metals to study its behavior at the nanoscale.

### Consultings

- Working and offering consultations in the general area of structural design of steel and concrete structures for companies and design offices.
- Member of the Technical Committee for preparing and reviewing the Buildings General Technical Specifications, Ministry of Public Works and Housing, Amman-Jordan. May. 2010-May 2013.

### Computer software usage

- Excellent Knowledge in Finite Element Analysis softwares (ANSYS, ABAQUS,...)
- Developing my own software using Visual Basic and C++
- Excellent Knowledge in office packages such as Microsoft Word, Excel, and PowerPoint.
- Excellent Knowledge in CAD utilities for Drawing (Autocad, Microstation, etc..)
- Excellent Knowledge in Structural Analysis and Design Softwares (STAAD PRO, SAP2000, ETABS, ROBOT,...)

### Courses taught

- Strength of Materials (CE202)
- Structural Analysis 1 (CE332)
- Steel Design (CE 434)
- Reinforced Concrete 2 (CE531)
- Bridge Engineering (CE536)
- Advanced Steel Design (CE738)
- Construction management (CE570)
- Foundation Engineering
- Civil Engineering drawing

- Statics
- Reinforced Concrete 1
- Computer Applications in Civil Engineering

### Supervision

- Supervised 5 master students
- Supervised more than 70 bachelor graduation projects

### Editorial Board

- Scientific Advances Journal of Civil and Construction Engineering
- Innovative Infrastructure Solutions

### Publications

- George Z. Voyiadjis, Amin H. Almasri ,and Taehyo Park, Experimental nanoindentation of BCC metals, *Mechanics Research Communications*, Volume 37, Issue 3, April 2010, Pages 307–314.
- Ziad N. Taqieddin, George Z. Voyiadjis, and Amin H. Almasri, Formulation and Verification of a Concrete Model with Strong Coupling between Isotropic Damage and Elastoplasticity and Comparison to a Weak Coupling Model, *Journal of Engineering Mechanics*, Volume 138, Issue 5, May 2012, Pages 530–541.
- Ghazi A. Abu-Farsakh, Amin H. Almasri, and Dana H. Qa'dan, Stress concentration around a central hole as affected by material nonlinearity in fibrous composite laminated plates subject to in-plane loading, *Science and Engineering of Composite Materials*, Published Online: 2013-12-12
- Amin H Almasri, and Ziad N. Taqieddin, Finite Element Study of Using Concrete Tie Beams to Reduce Differential Settlement Between Footings, *MACMESE'11 Proceedings of the 13th WSEAS international conference on Mathematical and computational methods in science and engineering*, Italy, 2011, Pages 112-116
- Amin H Almasri, and Hesham H. Alayan, Numerical Evaluation of Steel Columns Stability under Various Cases of Thermal Loads, *Advanced Materials Research*, Volume 685, 2013, Pages 290-294
- Amin H Almasri, and Hasan S. Noaman, Numerical Evaluation of Steel Columns Buckling under Cyclic Loads, *Jordan Journal of Civil Engineering*, Volume 8, No. 3, 2014, Pages 353-361.
- Amin H. Almasri, Rajai Z. Alrousan, and Al-harith Manasrah, Finite Element Analysis of a 2-Span Pedestrian Bridge Collapse Due To Trucks Collision, *KSCE Journal of Civil Engineering*. Accepted for publication, 2014.
- Voyiadjis, G.Z., and Almasri, A.H., “Experimental Study and Fabric Tensor Quantification of Micro-Crack Distributions in Composite Materials,” *Journal of Composite Materials*, Vol. 41, No. 6, 713-745, 2007.
- Almasri, A.H., and Voyiadjis, G.Z., "The Effect of Strain Rate on The Dynamic Hardness in Metals,” *Journal of Engineering Materials and Technology*, 129 (4), 505-512, 2007
- Voyiadjis, G.Z., and Almasri, A.H., “A Physically Based Constitutive model for FCC

- metals with Applications to Dynamic Hardness,” *Mechanics of Materials*, 40 (6), 549-563, Jun 2008.
- o Almasri, A.H., and Voyiadjis, G.Z., “A Physically Based Constitutive model for BCC metals with Applications to Iron,” *ASCE Journal of Engineering Mechanics*, 134, 521-529, 2008.
  - o Voyiadjis, G.Z., and Almasri, A.H., “Variable Material Length Scale Associated with Nano Indentation Experiments,” *ASCE Journal of Engineering Mechanics*, 135 (3), 139-148, 2009.
  - o Abu-Farsakh, G., and Almasri, A., "A composite finite element to predict failure progress in composite laminates accounting for nonlinear material properties," *Structural Control and Health Monitoring*, Volume 18, Issue 7, pages 752–768, 2011.

#### CONFERENCES (Samples)

- o Abu-Farsakh, G.A., and Almasri, A.H., “Effect Of Material Nonlinearity On Failure Of Laminated Fibrous Composite Shells Using Finite Element,” *Proceedings of the 7th International Conference On Concrete Technology in developing countries (ICCT 2004)*, Kuala Lumpur, Malaysia, 5-8 October 2004, pp. 63-75.
- o Voyiadjis, G.Z., and Almasri, A.H., “Using Fabric Tensors to Quantify Micro-Cracks in Composite Materials,” *Proceedings of McMat2005: Joint ASME/ASCE/SES Conference on Mechanics and Materials*, June 1-3, 2005, Baton Rouge, Louisiana, USA.
- o Almasri, A.H., and Voyiadjis, G.Z., “Damage Variable and Damage Evolution through Fabric Tensors,” *43rd Annual Technical Meeting of Society of Engineering Science*, August 13–16th, 2006, Pennsylvania USA.
- o Voyiadjis, G.Z., and Almasri, A.H., “Effect of Strain Rate in Dynamic Hardness for Metals,” *43rd Annual Technical Meeting of Society of Engineering Science*, August 13–16th, 2006, Pennsylvania USA.
- o Almasri, A.H., and Voyiadjis, G.Z., “Fabric Tensors to Quantify Micro-Cracks in Metal Matrix Composite Materials,” *43rd Annual Technical Meeting of Society of Engineering Science*, August 13–16th, 2006, Pennsylvania USA.
- o Voyiadjis, G.Z., and Almasri, A.H., “Effect of Strain Rate in Dynamic Hardness for Metals through Constitutive Modeling,” *February 25-March 1, TMS 2007 Annual Meeting & Exhibition*, Orlando, Florida, USA.
- o Almasri, A.H., and Voyiadjis, G.Z., “Constitutive Modeling of BCC metals: Application to Ingot Iron,” *McMat 2007*, June 3-7, University of Texas at Austin, Texas USA.
- o Almasri, A.H., and Voyiadjis, G.Z., “Regularizing Shear Bands Using Dynamic Length Scale,” *44th Annual Technical Meeting of the Society of Engineering Science*, Oct. 21-24, 2007, College Station, Texas
- o Almasri, A.H., Alrousan, R.Z., and Manasrah, A., "Using Finite Element To Predict Failure Of Light Weight Bridges Due To Vehicles Impact: Case Study," *17th International Conference on Civil Engineering and Applied Mechanics*, Prague, Czech republic, March 23 - 24, 2015.

#### BOOK CHAPTERS

Part of my joint research work with Dr. Voyiadjis also appeared in his second edition of the Book on Advances in Damage Mechanics: Metals and Metal Matrix Composites With an Introduction to Fabric Tensors, (2nd edition), Chapter 21, Elsevier, Oxford, ISBN: 0-08-044688-4, 2006. This work was based on our research on “Experimental Study and Fabric Tensor Quantification of Micro-Crack Distributions in Composite Materials.”

“ Shear Bands in Steel Plates under Impact Loading” (Ed.) Oana Cazacu, in Multiscale Modeling of Heterogenous Materials From Microstructure to Macro-Scale Properties, 2008, ISTE Wiley.

#### TECHNICAL REPORTS

Voyiadjis, G. Z., Kattan, P. I., Abu Al-Rub, R. K., Almasri, A. H., and Taqieddin, Z. N., "Feasibility Study for Modeling Impact Damage Using Fabric Tensors in Fighting Vehicles Due to Blast and/or Projectile Penetration" Final Report (2003-04)," MEFFV Project Office, Marine Corps Systems Command, AFSS PGD, Quantico, Virginia, September 2004, 98 pages.

