

Amin Almasri

Associate Professor of civil engineering

Contact

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Personal Info

Date of birth: 18/Nov/1979

Marital status: Married (2 kids)

Citizenship: Jordanian

Skill Highlights

- Research skills
- Teaching skills
- Managerial skills

Languages

Arabic 

English 

Education

- Ph.D. in Civil Engineering (structural engineering), Louisiana State University, USA, 2008

Ph.D. Dissertation: Dynamic Shear Bands in Metals under High Strain Rates

- M.Sc. in Civil Engineering (structural engineering), Jordan Uni. of Sci. & Tech, Jordan, 2004

M.Sc. Thesis: Effect of material nonlinearity on failure progress in laminated fibrous composite shells using finite element method

- B.Sc. in Civil Engineering, Jordan Uni. of Sci. & Tech, Jordan, 2001

Experience

2022-Now	Associate Professor and Civil Engineering Department Head, Liwa College, Abu Dhabi, United Arab Emirates
2020-2022	Engineering Dean Assistant, Fahad Bin Sultan University, Tabuk, Saudi Arabia.
2017-2020	Civil Engineering Department Chair, Fahad Bin Sultan University, Tabuk, Saudi Arabia.
2016-2022	Associate professor, Department of Civil Engineering. Fahad Bin Sultan University, Tabuk, Saudi Arabia.
2015-Now	Associate professor, Department of Civil Engineering. Jordan University of Science and Technology. Jordan.
2009-2015	Assistant professor, Department of Civil Engineering. Jordan University of Science and Technology. Jordan.
2008-2009	Lecturer, Department of Civil Engineering. Tafila Technical University. Jordan
2004-2008	Graduate Research Assistant, Louisiana State University, USA
2003-2004	Site Engineer, Penta Group for Engineering and Construction (Jordan).
2002-2004	Graduate Teaching Assistant, Jordan University of Science and Technology
2001-2003	Graduate Research Assistant, Jordan University of Science and Technology
2001-2004	Software Developer for scientific project.

Research interests

- Simulating the behavior of composite structures and elements using in-house software.
- Simulating the behavior and response of full scale concrete 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.

- Analysis and design of buildings and structures utilizing commercial computer softwares such as Sap 2000 and Staad Pro 2005, Prokon.
- Modeling damage and plasticity behavior of steel and concrete elements.
- Studying the performance of nano metals through experimental testing.

Committees and Consultings

- Consultant for several design offices and firms in the area of analysis and design of steel and concrete structures (Petra consultants, Mohammad Habib office, Buthaina Altarawneh office, ASTRA Group).
- 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.

Courses Taught

- Statics (CE201)
- Strength of Materials (CE202)
- Civil Engineering drawing (CE302)
- Structural Analysis 1 (CE332)
- Structural Analysis 2 (CE433)
- Steel Design (CE434)
- Reinforced Concrete 1 (CE432)
- Reinforced Concrete 2 (CE531)
- Bridge Engineering (CE536)
- Construction management (CE570)
- Foundation Engineering (CE462)
- Computer Applications in Civil Engineering (CE535)
- Advanced Steel Design (CE738)
- Finite Element Method (CE743)

Computer Softwares

- Excellent knowledge in finite element analysis softwares, such as ANSYS and 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, such as Autocad and Microstation.

- Excellent knowledge in structural analysis and design softwares, such as STAAD PRO, SAP2000, ETABS, and ROBOT.
- Excellent knowledge in project planning software PRIMAVERA 6.

Academic Supervision

- Supervised more than 180 bachelor graduation projects.
- Master Thesis. Alharith Manasrah. Finite element analysis of pedestrian bridges collapse due to trucks collision. Main supervisor. 2010
- Master Thesis. Safa Olimat. Contact Stresses produced by Dynamic Loading. Main supervisor. 2011
- Master Thesis. Hesham Alayan. Finite element study of thermal buckling of steel structural columns. Main supervisor. 2011
- Master Thesis. Hasan Safwan. Simulation of buckling of steel columns under cyclic loading using finite element method. Main supervisor. 2013.
- Master Thesis. Dana Qa'adan. Effect of central holes on fibrous composite laminated plates subject to in-plane loading. Co-Advisor. 2014
- Master Thesis. Ahmad Alatawi. Effect of high temperatures on fiber reinforced concrete: Experimental Study. Main supervisor. 2019
- Master Thesis. Mohamed Saud Alali. Effect of High Temperatures on Compressive Strength of Concrete Wrapped with FRP Sheets: An Experimental Investigation. Main supervisor. 2021

Awards and Honors

- I was on Honor List for 6 semesters out of 8 during my undergraduate study of civil engineering in Jordan University of Science and Technology. This requires a GPA greater than 84% (Excellent)
- Teaching assistantship for 5 semesters during master studies starting spring 2002 to spring 2005.
- Research assistantship for 4 years during Ph.D studies starting fall 2004 to spring 2008.
- Winner of 2015-best software prize of Philadelphia University for ALYAF-Composite Structures Design software.

List of Publications

- Amin H. Almasri, Israa Jabur, "Assessing lateral torsional buckling of stepped steel I beams using finite element method," *Forces in Mechanics*, 15, 2024, 100266. <https://doi.org/10.1016/j.finmec.2024.100266>
- Amin H. Almasri, "Smarter Window Selection for Smarter

Energy Consumption: The Case of the United Arab Emirates," Buildings, 2024, 14(4), 876. <https://doi.org/10.3390/buildings14040876>

- Amin H. Almasri, Dima A. Husein Malkawi, & Abdallah I. Husein Malkawi, "Numerical analysis to determine the optimum distance of reaction piles in a static pile load test," Arabian Journal of Geosciences, 16, 7, 2023.
- Mohammad Akhtar, Abdulsamee Halahla, Amin H. Almasri, "Experimental Study on Compressive Strength of Recycled Aggregate Concrete under High Temperature," Structural Durability & Health Monitoring, Vol. 15, No. 4, 335-348, 2021.
- Abdulsamee M. Halahla, Yazan Abu Tahnat, Amin H. Almasri, George Z. Voyiadjis, "The effect of shape memory alloys on the ductility of exterior reinforced concrete beam-column joints using the damage plasticity model," Engineering Structures, Volume 200, 2019, 109676
- Abdulsamee M. Halahla, Mohammad Akhtar, Amin H. Almasri. "Utilization of Demolished Waste as Coarse Aggregate in Concrete", Civil Engineering Journal, Vol. 5, No. 3, 2019.
- Amin H. Almasri and Shadi Moqbel, "Numerical evaluation of AASHTO drag force coefficients of water flow around bridge piers," Journal of Engineering Materials and Technology, Apr 2017, 139(2).
- Amin H. Almasri and Qusai Fandi Al-Waked, "Inspection and Numerical Analysis of an Ottoman Railway Bridge in Jordan," Advances in Materials Science and Engineering, vol. 2016, Article ID 9039483, 7 pages, 2016. doi:10.1155/2016/9039483.
- 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. 2015, Volume 19, Issue 6, Pages 1845–1851
- 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, 2015, Volume 22, Issue 1, Pages 31–36.
- 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, and Hesham H. Alayan, Numerical Evaluation of Steel Columns Stability under Various Cases of Thermal Loads, Advanced Materials Research, 2013, Volume 685, Pages 290-294.
- 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.
- George Z. Voyiadjis, Amin H. Almasri, Danial Faghihi, and Anthony N. Palazotto, "Analytical solution for shear bands in cold-rolled 1018 steel," Journal of the Mechanical Behavior of Materials, 2012, Volume 20, Issue 4-6, Pages 89–102.

- 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.
- Amin H. Almasri, and George Z. Voyiadjis, "Nano-indentation in FCC metals: experimental study," *Acta Mechanica*, 2010, Volume 209, Issue 1/2, Pages 1-9.
- 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.
- 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.
- 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.
- 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.
- 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

Conferences

- Amin H Almasri, "A Better Window Orientation Selection for Sustainable Cities: Comparison Between UAE and Oman," Oman Conference for Environmental Sustainability OCES, 26-28 February 2024.
- Amin H. Almasri, Ahmed M. Abu Abdo, Mustafa Tamen, "Concrete Material Common Failures in Turkey 2023 Earthquakes," International Conference On Science Technology And Management - (ICSTM-23) 24th -25th October, 2023 Rome, Italy.
- Amin H. Almasri, Ahmad Abu Abdo, Hany El Naggari, "A Simplified Constitutive Model to Predict Behaviour of Concrete with Tire Derived Aggregate," 8th World Congress on Civil, Structural, and Environmental Engineering (CSEE'23) Lisbon, Portugal – March 29 – 31, 2023
- Amin H. Almasri, Mohammad Akhtar, Abdulsamee Halahla, "Concrete With Recycled Course Aggregate Under Thermal Loads," 3rd Coordinating Engineering for Sustainability And Resilience, May 6th– May 9th, 2022, Irbid, Jordan

- Amin H. Almasri. "Analytical Solution of Nonprismatic Reinforced Concrete Cantilever Deflection under Concentrated Load," 2nd International Conference on Structural Engineering, New Technology and Methods, April 2 - 4, 2017, Spain.
- Amin H. Almasri, and Shadi Moqbel, "Numerical Evaluation of Drag Coefficient of Flow around Different Bridge Piers Shapes," International Symposium on Multi-physical Solutions for Harsh Environments: Computations and Experiments, Seoul, South Korea, March 21-22, 2016.
- 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.
- Ghazi A. Abu-Farsakh, Amin H. Almasri, "Investigation of Failure Progress of Composite Laminates," International Conference of Civil Engineering for Sustainability and Resilience, Amman, Jordan, 24-27 April 2014.
- Amin H. Almasri, and Hesham H. Alayan, "Numerical Evaluation of Steel Columns Stability under Various Cases of Thermal Loads," 3rd International Conference on Advanced Materials Research, Dubai, United Arab Emirates, January 2013,
- Amin H. Almasri and Safa'a Olimat, "Analytical and Numerical Simulation of Dynamic Indentation for Different Indenter Shapes," International Symposium on Modeling Material Behavior at Multiple Scales, Seoul, South Korea, April 8-10, 2012
- 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
- 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.
- 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.
- 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
- 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.

- 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.
- 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.
- 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.
- 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.

Book Chapters

- Part of my joint research work with Dr. Voyiadjis 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.
- “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.

References

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