

Background Summary

- Structural Engineer with 11 years' experience and record of success of both small and large construction projects.
- In-depth knowledge of structural analysis and reinforced concrete design, assessment and repair techniques for buildings, analysis and design of light-frame wood buildings.
- Wide experience in teaching civil engineering courses for undergraduates.
- Great ability to work under stress, teamwork, managing skills and achieve long term targets.

Education

- **Ph.D.**, 2014 – 2019, University of Western Ontario, London, Ontario, Canada, **Field of Study:** Structural Engineering, **Thesis Title:** Analysis of Roofs of Wooden Houses Under Uplift Wind loads Analytical Solution, Retrofit, and Reliability Analysis, **Supervisor:** Prof. Ashraf El Damatty, Grade 88.25 %.
- **M.Sc.**, 2005 – 2007, Tripoli University (Former, Al-Fateh University), Libya, **Field of Study:** Structural Engineering, **Thesis Title:** Yield Line Analysis of Rectangular Slabs with Central Openings for Different Boundary Conditions, **Supervisor:** Prof. Ali.S. Zregh, Grade 95.5 %.
- **B.Sc. Civil Engineering**, 1998 – 2003, Tripoli University (Former, Al-Fateh University), Libya, Grade 75.02 %.

Honors and Awards

- Department of Civil Engineering. Award of excellence in undergraduate studies. One of the top-ranking graduate students. Tripoli University (Former, Al-Fateh University). Libya, 1998 – 2003.
- Department of Civil Engineering. Award of excellence in graduate studies. First ranking student. Tripoli University (Former, Al-Fateh University). Libya, 2005 – 2007.

Professional Experience

- **2020/09 – 2024/10**, Postdoctoral Associate with the department of Civil and Environmental Engineering, University of Western Ontario, work on development of software Wood3D which analysis of wooden shear walls under lateral loads.
- **2020/02 – 2020/9**, Postgraduate Research Assistant with the department of Civil and Environmental Engineering, University of Western Ontario, work on development of software for analysis of wood buildings.
- **2015/01 – 2018/12**, Teaching Assistant, Department of Civil and Environmental Engineering, University of Western Ontario, Teaching Introduction to Structural Engineering CEE 2220a, and Analysis of Indeterminate Structures CEE 3340a, and Finite Element Methods and Analysis of Buildings Under Lateral Loads CEE 3343b.

- **2008/03 – 2013/04**, Assistant Lecturer, Department of Civil Engineering. Tripoli University (Former, Al-Fateh University), Teaching Engineering Mechanics Statics GE 121, and Properties of Materials CE 133, Structure Analysis I CE 203.
- **2008/10 – 2009/12**, Structural Design Engineer, at Development Consulting Engineers.
- **2007/08 – 2008/10**, Structural Design Engineer, at Bonyan Consulting Engineers.
- **2005/03 – 2008/12**, Teaching Assistant, Department of Civil Engineering. Tripoli University (Former, Al-Fateh University), Teaching Engineering Mechanics Statics GE 121, and Fortran Program Language Gs 2000.
- **2004/08 – 2005/02**, Structural Design Engineer, at Ghadams office.
- **2004/08 – 2005/10**, Design and Site Engineer, the Libyan-Arab Domestic Investment Co. (LADICO), Libya.

Publications

- **Enajar, A.**, Nassef, A., and El Damatty, A. (2023), "Reliability of toe-nail connections in a gable roof houses under uplift wind loads", Engineering Structures. 274, 115199.
- Risha, A., **Enajar, A.**, and El Damatty, A. (2022), "Assessment of Current Analysis Methodology of Light-Frame Wood Buildings under Lateral Loads Using Wood3D", The International Structural Specialty Conference, Canadian Society for Civil Engineering, Whistler, BC, Canada, May 25-28, 2022.
- **Enajar, A.**, El Damatty, A.A., and Nassef, A. (2021), "Semi-Analytical Solution for Gable Roofs under Uplift Wind Loads", Engineering Structures. 227, 111420.
- **Enajar, A.F.**, Jacklin, R.B., El Damatty, A.A. (2019), "Nonlinear Modeling of Roof to Wall Connections in a Gable-Roof Structure under Uplift Wind Loads", Wind and Structures, 28(3), 181-190.
- **Enajar, A.**, El Damatty, A.A., and Nassef, A. (2019), "Closed-Form Solution and Reliability Analysis for Light-Frame Wood-Houses under Uplift Wind Loads", Submitted to the 15th International Conference on Wind Engineering, Beijing, China; September 1-6, 2019.
- El Damatty, A.A., Shehata, **A.**, **Enajar, A.**, Rosenkrantz, J., and Elezaby, F. (2018), "Research for adaptive and sustainable structures", 8th International Conference on Environmental Effects on Buildings and People, Cracow, Poland, October.
- Rosenkrantz, J. D., **Enajar, A.**, Jacklin, R., and El Damatty, A. (2016), "Structural modelling and verification methods to develop a cable roof harness retrofit", The 5th International Structural Specialty Conference, Canadian Society for Civil Engineering, London, ON, Canada, June 1-4, 2016.
- Zreggh, A.S., and **Enajar, A. F.** (2013), "Yield Line Analysis of Two Way R.C Rectangular Slabs with Central Openings Under Uniformly Distributed Load", 12th ARAB STRUCTURAL ENGINEERING CONFERENCE, Tripoli-Libya, December 16-18, 2013.

Skills

- **Structural Analysis**, Modeling and Design using SAP2000, ETABs, and AutoCAD.
- **Numerical Computing** by using MATLAB and Microsoft Visual Basic.

- **Preparation and Revision** of civil engineering courses for undergraduates such as Statics and Mechanics of Materials, Structure Analysis.
- **Monitoring and Developing** of the education quality for civil engineering undergraduate students.

Current Work

Currently, I am a lecturer in the Department of Civil and Environmental Engineering at the Tripoli University since January 2025.