



## CURRICULUM VITAE

### AYMAN ELZOHAIKY, PHD, EIT

Assistant Professor, Department of Engineering & Technology  
Texas A&M University-Commerce, Commerce, TX 75429, USA.  
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## EDUCATION

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- University of Missouri, Columbia, MO, USA** 08/2013 – 07/2018  
Ph.D. in Structural Engineering  
Department of Civil and Environmental Engineering  
Dissertation title: “*Monotonic and Fatigue assessment of Post-Tensioned Steel-Concrete Composite Beams*”  
Advisor: Prof. Hani Salim
- Zagazig University, Zagazig, Egypt** 09/2005 – 04/2010  
M.Sc. in Structural Engineering  
Department of Structural Engineering  
Thesis title: “*Strengthening of Continuous Composite Beams Using FRP*”  
Advisors: Prof. Ashraf El-Shihy
- Zagazig University, Zagazig, Egypt** 09/1999 – 06/2004  
B.Sc. in Civil Engineering

## PROFESSIONAL EXPERIENCE

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### *Academic:*

- Assistant Professor**, Department of Engineering & Technology, Texas A&M University-Commerce, Commerce, TX, USA. 09/2019 – Present
- Ad-Interim Assistant Professor**, Department of Engineering & Technology, Texas A&M University-Commerce, Commerce, TX, USA. 01/2019 – 5/2019
- Adjunct Instructor**, Department of Civil and Environmental Engineering, University of Missouri, Columbia, MO, USA. 08/2018 – 12/2018
- Graduate Research and Teaching Assistant**, Department of Civil Engineering, University of Missouri, Columbia, MO, USA. 08/2013 – 07/2018
- Lecturer**, Department of Structural Engineering, Zagazig University, Zagazig, Egypt. 05/2010 – 07/2013
- Graduate Research and Teaching Assistant**, Department of Structural Engineering, Zagazig University, Zagazig, Egypt. 03/2006 – 04/2010

**Industrial (Part-time):**

**BCE-Behairy Consulting Engineering:** Structural design (High Rise Building and bridge design sections)  
03/2007 – 08/2007

**PCE-Pyramids Consulting Engineering:** Structural design (High Rise Building and bridge section)  
08/2004 – 08/2006

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**PROFESSIONAL ACTIVITIES AND CERTIFICATIONS**

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- I have passed the PE exam on October 2020 with the Texas Board of Professional Engineers. Application is pending.

- I enrolled as an Engineer In Training (EIT) with the Texas Board of Professional Engineers.

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**HONORS**

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- Chuck Arize Junior Faculty Award Honor: *“This award speaks well of my research, teaching and service at A&M-Commerce”* 2020
- Zagazig University Honor for: *“Best M.Sc. in engineering and technology of advanced science”* 2011
- Egyptian Engineers Syndicate Honor:
  - \* Outstanding Engineers for excellence in Engineering Education (M.Sc.) 2010
  - \* Outstanding Engineers for excellence in Engineering Education (B.Sc.) 2004
- 5 State Awards for Outstanding Undergraduate Students, Egypt. 1999 - 2004

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**PUBLICATIONS**

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Journal Papers

**El-Zohairy, A.,** Hammontree, H., Oh E., and Moler, P. (2020). “Temperature Effect on the Compressive Behavior and Constitutive Model of Plain Hardened Concrete” *Journal of Materials*, 13(12). <https://doi.org/10.3390/ma13122801>.

**El-Zohairy, A.,** Salim, H., and Shabaan H. (2020). “Analytical Model and Parametric Study for Static Flexural Behavior of Externally Post-tensioned Steel-RC Composite Girders” *Journal of Structures*, 27. <https://doi.org/10.1016/j.istruc.2020.05.060>.

**El-Zohairy, A.,** Salim, H., and Saucier, A. (2019). “Fatigue tests on steel-concrete composite beams subjected to sagging moments” *Journal of Structure Engineering*, 145(5). [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002326](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002326)

**El-Zohairy, A.,** Salim, H., and Saucier, A. (2019). “Steel-Concrete Composite Beams Strengthened with Externally Post-Tensioned Tendons under Fatigue” *Journal of Bridge Engineering*, 24(5). [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001390](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001390)

Al-Sherrawi, M., Allawi, A. A., AL-Bayati, B., Al Gharawi, M., and **El-Zohairy, A.** (2018). "Behavior of Precast Prestressed Concrete Segmental Beams" *Civil Engineering Journal*, 4 (3): 488-496.

**El-Zohairy, A.**, Salim, H., Shaaban, H., Mustafa, S., and Shihy, A. (2018). "FE Analysis and Parametric Study of Continuous Steel-Concrete Composite Beams Stiffened with Post-tensioned Tendons" *Journal of Advances in Structural Engineering*, 21(6): 933-945 DOI: 10.1177/1369433217732495

**El-Zohairy, A.**, Salim, H., Fawzy, H., Mustafa, S., and Shihy, A. (2017). "Experimental and FE Parametric Study on Continuous Steel-Concrete Composite Beams Strengthened with CFRP Laminates" *Journal of Construction & Building Materials*, 157: 885-898.

**El-Zohairy, A.**, and Salim, H. (2017). "Parametric Study for Post-Tensioned Composite Beams with External Tendons" *Journal of Advances in Structural Engineering*, 20 (10): 1433-1450. DOI: 10.1177/1369433216684352

**El-Zohairy, A.**, Salim, H., Fawzy, H., Mustafa, S., and Shihy, A. (2015). "Finite Element Modeling of Externally Post-Tensioned Composite Beams" *Journal of Bridge Engineering (ASCE)*, 20 (12). DOI: 10.1061/(ASCE)BE.1943-5592.0000756

El-Shihy A. M., Fawzy H. M., Mustafa S. A. A., **El-Zohairy A. A.** (2010). "Experimental and Numerical Analysis of Composite Beams Strengthened with CFRP Laminates in Hogging Moment Region" *Journal of Steel and Composite Structures*, 10 (3): 439-453.

#### Conference Proceedings

**El-Zohairy, A.**, Alsharari, F., Salim, H., Mostafa, S., and Shaaban, H. (2020). "Fatigued Composite Beam with Different Shear Connection Arrangement" *Structures Congress (ASCE), St Louis, MO, April 5-8.*

Alsharari, F., **El-Zohairy, A.**, Salim, H., and Mutnbak, M. (2020). "Fatigue Testing of Post-Tensioned Steel-Concrete Composite Beams" *Structures Congress (ASCE), St Louis, MO, April 5-8.*

**El-Zohairy, A.**, Salim, H., and Saucier, A. (2019). "Effect of Externally Post-Tensioned Tendons on the Fatigue Behavior of Steel-Concrete Composite Beams" *Structures Congress (ASCE), Orlando, FL, April 25-27.*

**El-Zohairy, A.**, Salim, H., and Saucier, A. (2019). "Experimental Study on Fatigue Performance of Steel-concrete Composite Girders" *SEM Annual Conference, June 4-7, 2018, Greenville, SC. DOI.org/10.1007/978-3-319-95879-8\_13*

Al-Sherrawi, M., Allawi, A. A., AL-Bayati, B., Al Gharawi, M., and **El-Zohairy, A.** (2019). "Experimental Investigation of Segmental Post-tensioned Girders" *SEM Annual Conference, June 4-7, 2018, Greenville, SC. DOI: 10.1007/978-3-319-95053-2\_12*

Allawi, A. A., AlBayati, A., Al Gharawi, M., and **El-Zohairy, A.** (2019). "Experimental and Numerical Evaluations of Live Load Distributions of Steel-Concrete Composite Bridge" *SEM Annual Conference, June 4-7, 2018, Greenville, SC. DOI: 10.1007/978-3-319-95053-2\_13*

Allawi, A. A., Al-Sherrawi, M., Al Gharawi, M., and **El-Zohairy, A.** (2019). "A Case Study to Evaluate Live Load Distributions for Pre-stressed RC Bridge" *SEM Annual Conference, June 4-7, 2018, Greenville, SC. DOI: 10.1007/978-3-319-95053-2\_11*

**El-Zohairy, A.** and Salim, H. (2017). "Numerical Analysis of Steel-Concrete Composite Beams Strengthened with Pre-stressed CFRP Plates" *American Society for Composites (ASC) 32nd Annual Technical Conference, October 23-25.*

**El-Zohairy, A.**, Salim, H., Fawzy, H., Mustafa, S., and Shihy, A. (2017). “Behavior of Continuous Steel-Concrete Composite Beams Reinforced with CFRP sheets” *American Society for Composites (ASC) 32nd Annual Technical Conference, October 23-25.*

**El-Zohairy, A.** and Salim, H. (2017). “Behavior of Post-tensioned Steel-Concrete Composite Beams Subjected to Hogging Moments” *American Society for Composites (ASC) 32nd Annual Technical Conference, October 23-25.*

**El-Zohairy, A.**, and Salim, H. (2017). “Behavior of Steel-Concrete Composite Beams under Fatigue Loads” *Conference and Exposition on Experimental and Applied Mechanics, Indianapolis, IN, June 12-15.* DOI 10.1007/978-3-319-62831-8\_14

**El-Zohairy, A.**, and Salim, H., Shaaban, H., Mostafa S. (2017). “Continuous Composite Beams Stiffened with CFRP Sheet at the Hogging Moment Region” *Conference and Exposition on Experimental and Applied Mechanics, Indianapolis, IN, June 12-15.* DOI 10.1007/978-3-319-63552-1\_7

**El-Zohairy, A.**, and Salim, H. (2017). “Parametric Study of External Strengthening of Composite Beams using Post-Tensioned Tendons” *Structures Congress (ASCE), Denver, CO, April 6-8, 58-67.* DOI: 10.1061/9780784480403.006

#### Conference Presentations/Posters/Judge

**El-Zohairy, A.** (2019). 16th Annual Pathways Student Research Symposium. *Texas A&M International University, Laredo, TX, November 7-8. (Judge)*

**El-Zohairy, A.**, and Salim, H. (2017). “Steel-Concrete Composite Beams Subjected to Fatigue Loads” *Diverse Engineering Professionals Conference, Columbia, MO, October 7. (Poster)*

**El-Zohairy, A.**, and Salim, H. (2015). “Fatigue Analysis of Composite Beams Strengthened with Externally Post-Tensioned Tendons” *Mid-Continent Transportation Research Symposium, Ames, IA, August 19–20 (poster).*

**El-Zohairy, A.**, and Salim, H. (2015). “Analysis of Composite Beams Strengthened with Externally Post-tensioned Tendons” *1st Annual Missouri Bridge Conference, Columbia, MO, April 9 (poster).*

#### Manuscripts in Progress

Alsharari, F., **El-Zohairy, A.**, and Salim, H. (2021). “Post-Tensioning Effect on Fatigue Behavior of Damaged Steel-Concrete Composite Beams” *Journal of Engineering Structure, Submitted for the second review.*

**El-Zohairy, A.**, Salim, H., Mostafa, S., and Shaaban, H. (2021). “Experimental Investigation on Fatigue Behavior of Steel-Concrete Composite Beams with Different Shear Connection Arrangements” *Journal of Engineering Structure Submitted for the second review.*

Alsharari, F., **El-Zohairy, A.**, Salim, H., and El-Sisi, A. (2021). “Pre-Damage Effect on the Residual Behavior of Externally Post-tensioned Fatigued Steel-Concrete Composite Beams” *Journal of Structures, Submitted for the second review.*

**El-Zohairy, A.**, and Salim, H. (2021). “Experimental and FE Analysis on Steel-RC Composite Specimens with Externally Pre-stressed Tendons” *Journal of Advances of Structure Engineering, in progress.*

**El-Zohairy, A.**, and Salim, H. (2021). “Finite Element Simulation of Fatigue Damage in the Concrete Deck of Steel-Concrete Composite Beams” *Journal of Structural Engineering (ASCE), in progress.*

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## RESEARCH PROJECTS

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***Rubberized High Strength Concrete (HSC) Strengthen with Stainless Steel Fibers.***

Engineering and Technology Department, Texas A&M University-Commerce, Commerce, TX, USA.  
*Sponsored by Undergraduate Grant Program, Texas A&M University-Commerce.* 10/2020 – Present

***The Influence of Temperature on the Characteristic Compressive Strength and Constitutive Model of Plain Hardened Concrete*** 11/2019 – 06/2020

Engineering and Technology Department, Texas A&M University-Commerce, Commerce, TX, USA.  
*Sponsored by Texas A&M University-Commerce.*

***Effect of External Post-Tensioning on Fatigue Life of Shear Connectors in Steel-Concrete Composite Beams*** 03/2014 – 06/2020

Civil and Environmental Engineering Department, University of Missouri, Columbia, MO, USA. *Sponsored by the Egyptian Cultural and Educational Bureau, DeLong's Inc., and Coreslab Structures Inc.*

***Experimental Investigation of Precast Prestressed Reinforced Concrete Segmental Beams***

03/2015 – 10/2017

Civil Engineering Department, University of Baghdad, Baghdad, Iraq. *Sponsored by the University of Baghdad and Hammurabi Contracting Company.*

***Strengthening of Steel-Concrete Composite Beams with CFRP Laminates at Hogging Moment Regions*** 04/2008 – 03/2009

Department of Structural Engineering, Zagazig University, Zagazig, Egypt. *Sponsored by Zagazig University and Sika Egypt.*

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## REVIEWER ACTIVITIES

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ad hoc reviewer for Elsevier, ASCE, Taylor & Francis, ACI, etc.:

- 35 MDPI journals (*Applied Sciences Journal, Materials Journal, Symmetry Journal*);
- 17 Elsevier journals (*Construction and Building Materials, Engineering Structures, Thin-Walled Structures, Structures*);
- 3 Sage journals (*Advances in Structural Engineering*);
- 25 International journals (*Journal of King Saud University, Engineering Science and Technology, Journal of Materials Engineering and Performance, Structure and Infrastructure Engineering, Materials Research Express, Advances in Civil Engineering*).

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## TEACHING EXPERIENCE

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**Texas A&M University-Commerce, Commerce, TX, USA**

Department of Engineering & Technology

***Assistant Professor:***

- 1- CONE 332 - Structural Analysis and Design
- 2- CONE 341 – Engineering Hydrology and Hydraulic
- 3- CONE 351 – Surveying for Construction
- 4- CONE 413 - Design & Const of Steel

- 5- CONE 414 - Design & Const of Concrete
- 6- ENGR 2303 - Engineering Mechanics
- 7- ENGR 1304 - Computer-Aided Design (CAD)

**University of Missouri, Columbia, MO, USA**

Civil and Environmental Engineering Department

***Adjunct Instructor:***

- 1- CV\_ENG 3300 - Structural Analysis I. (Fall 2018)
- 2- ENGR1200 – Statics – Online Section (Fall 2018)
- 3- ENGR2200 – Strength of Material (Fall 2018)

***Teaching Assistant:***

- 1- CV\_ENG 3300 - Structural Analysis I. (Fall 2016 and Spring 2018)
- 2- ENGINR 1200 - Statics and Elementary Strength of Materials (online course). (Falls, Springs and Summers of 2015-2018)
- 3- ENGINR 2200 - Intermediate Strength of Materials. (Fall 2015, Springs of 2016 and 2018, and Summer 2018)

**Zagazig University, Zagazig, Egypt**

Department of Structural Engineering

***Lecturer:***

1. Computer-Aided Design of Structures. (Course implementation, teaching, and grading). (Fall 2012)
2. High Rise Buildings Design. (Course implementation, teaching, and grading). (Spring 2012)
3. Earthquake engineering. (Preparing and grading all exams). (Fall 2011-2012)

***Instructor:***

1. Structure Analysis Program (SAP2000) (Summers 2006-2013)
2. Computer-aided design (CAD) program (Summers 2006-2013)

***Teaching Assistant:***

1. Theory of Structures I, II and III. (Falls of 2007-2012)
2. Structural Mechanics I, II. (Springs of 2006-2013)
3. Plates and Shells. (Springs of 2006-2013)
4. Matrix Methods of Structural Analysis. (Falls of 2007-2012)

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**TRAINING ON TEACHING**

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**University of Missouri, Columbia, MO, USA**

- 1- Orientation for New International Teaching Assistants (ONITA). (Fall 2015)
- 2- Teaching for Learning Workshop (Spring 2017)
- 3- 2<sup>nd</sup> Annual Teaching Renewal Week (Spring 2017):

*Intentional Syllabus - Engagement - Dealing with Distracted Students - Defining and Preventing Plagiarism/Cheating - Grading/Assessment.*

**Zagazig University, Egypt**

A program for teaching training as a requirement for the Assistant Lecturer position. The program titled “*Skills Development of Teaching Staff and their Assistants*” offered by *Faculty and Leadership Development Center (FLDC); Zagazig University*. The program includes these courses:

1. Using technology in teaching
2. Ethics of scientific research
3. International publication of papers
4. Effective communication skills
5. Testing systems and students’ evaluation

**MEMBERSHIPS**

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American Society of Civil Engineering (A.M.ASCE)  
Structural Engineers Association of Texas (SEAOI)