### **Curriculum Vitae**

Usama Ali Ali Ebead, Ph.D., P.Eng., M.ASCE. M.ACI Professor and Civil Engineering Program Coordinator, Civil and Architectural Engineering, Qatar University, Doha, Qatar, POBox 2713, Office I-205; Tel. +974-7022-3023; <u>uebead@qu.edu.qa</u> or <u>uebead@yahoo.ca</u>

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#### **CURRICULUM VITAE**

Usama Ali Ali Ebead, Ph.D., P.Eng., M.ASCE. M.ACI Associate Professor, Civil Engineering Program Coordinator, Civil and Architectural Engineering, Qatar University, Doha, Qatar, POBox 2713, Office I-205; Tel. +974-7022-3023; uebead@qu.edu.qa or uebead@yahoo.ca

#### **1.** Personal Information and Main Highlights

#### a. Education

**Ph.D.** (August 2002) in Structural Engineering, Faculty of Engineering, Memorial University of Newfoundland, St. John's, NL, Canada

DISSERTATION: Strengthening of Reinforced Concrete Two-Way Slabs

**Certificate of the Graduate Programme in Teaching** (2001), Memorial University of Newfoundland, St. John's, NL, Canada

**Certificate of the International Teaching Assistants** (1999), Memorial University of Newfoundland, St. John's, NL, Canada

**M.Sc.** (June 1998) in Structural Engineering, Department of Civil Engineering, Helwan University, Cairo, Egypt

THESIS: Repair and Strengthening of Partially Loaded RC Beams Using Ferrocement

B.Sc., Honours (May 1994) in Civil Engineering, Helwan University, Cairo, Egypt

Throughout the 5-year enrolment, I was ranked  $1^{st}$  (in first year) and  $2^{nd}$  (in the subsequent 4 years) in order of merit among 80 students.

FINAL YEAR PROJECT: Design and analysis of a prestressed reinforced concrete bridge, a multistorey residential building and an elevated water tank (**Distinction**)

#### b. Professional experience

March 2016 —: **Civil Engineering Program Coordinator**, Qatar University, Doha, Qatar September 2015 —: **Civil Engineering Program Focal Person**, Qatar University, Doha, Qatar September 2013—: **Associate Professor**, Qatar University, Doha, Qatar September 2011 to August 2013: **Associate Professor**, United Arab Emirates University, UAE August 2010 —: **ASCE Student Chapter Practitioner Advisor**, the UAE Chapter September 2007 to August 2011: **Assistant Professor**, United Arab Emirates University, UAE April 2006 to August 2007: **Research Professional level III**, University of Sherbrooke, QC, Canada April 2004 to March 2006: **NSERC Postdoctoral Fellow**, University of Sherbrooke, Canada September 2001 to December 2001: **Lecturer**, Memorial University of Newfoundland, NL, Canada January 1999 to August 2002: **Teaching Assistant**, Memorial University of Newfoundland, Canada September 1994 to December 1998: **Instructor**, Helwan University, Cairo, Egypt September 1997 to March 1998, **Part-time Structural Engineer**, SENS, Cairo, Egypt August 1994 to September 1997 and April 1998 to November 1998, **Part-time Structural** 

Engineer, El-Khiat & Menissy, Engineering Consulting and Constructions, Cairo, Egypt

#### c. Main highlights

Dr. Ebead:

- 1. is currently the editor of Structures and Buildings Journal.
- 2. was promoted to Associate Professor in June 2011.
- 3. received 18 funded research grants of approximately 2.7 million Canadian dollars.
- 4. published/under-review 43 indexed journal papers and over 46 refereed conference papers.
- 5. is an internationally recognized expert in the fields of infrastructure renovation and strengthening, advanced composite materials, and numerical modelling.
- 6. has developed innovative strengthening techniques and finite element models for reinforced concrete structures.
- 7. has been carrying out innovative and significant research on the use of non-corrosive reinforcements in concrete combined with by-product materials and construction waste.
- 8. is a recipient of 2 research and teaching awards at Qatar University, 1 at UAE University while being a faculty member.
- 9. received 7 awards/fellowships while being a student/post-doc.
- 10. supervised/have been supervising 7 graduate students.
- 11. supervised 12 undergraduate research students at Qatar University.
- 12. attended/gave a presentation in 28 scientific conference and event.
- 13. taught and developed 10 courses at Qatar University and same number at UAE University.
- 14. is the Chair of the Departmental Curriculum Committee at Qatar University.
- 15. is the Undergraduate Program Coordinator at Qatar University.
- 16. has significantly contributed to ABET re-accreditation efforts at Qatar University and UAEU.
- 17. has been a licensed member of Professional Engineers Ontario.
- 18. is a current member of ACI Committee 549.
- 19. has been a reviewer of several journals.
- 20. Has a Google Scholar profile at:

https://scholar.google.com/citations?user=M5LnwrIAAAAJ&hl=en.

# 2. Fellowships, Prizes, and Awards Given for Research or Teaching Achievements

- 1. Certificate for Excellence in Research/Teaching at the College of Engineering, Qatar University, 2016
- 2. Dean's Award on Teaching "Targeting Excellence in Teaching and Learning", Qatar University, 2015
- 3. Best Individual Research Project Award at the College of Engineering level, United Arab Emirates University, 2009
- 4. Best Presentation Award (Post-Docs and Research Associates), Canada Annual Conference, 2006
- 5. Natural Sciences and Engineering Research Center (NSERC) Postdoctoral Fellowship, Canada, 2004–2006
- 6. Postdoctoral Fellowship by Canada Research Chair in Innovative Strengthening Systems, University of Sherbrooke, Sherbrooke, QC, Canada, 2002–2004
- 7. Postgraduate Graduate Scholarship, Memorial University of Newfoundland, St. John's, NL, Canada, 1999–2002
- 8. Postgraduate Scholarship in the Area of Water Resources, The Government of Egypt, 2000 (declined)
- 9. Postgraduate Fellowship, Helwan University, Cairo, Egypt, 1995–1999
- 10. Undergraduate Distinction Awards, Helwan University, Cairo, Egypt, 1990–1994

## 3. Research, Scholarly, and Creative Activities

## a. Research projects/grants

# 1. NPRP Cycle # 9: Sustainable concrete using seawater, recycled aggregates, and non-corrosive reinforcement: NPRP 9 – 110 – 2 - 052

Role: Lead Principal Investigator

Collaborative investigators: Professor Antonio Nanni, University of Miami, USA.

Period: 2017-2020

Funded by: Qatar Foundation, Qatar

Fund amount: \$684,627 US

Location of Tenure: Qatar University, University of Miami

# 2. NPRP Cycle # 7: Strengthening of corrosion-damaged reinforced concrete structures with textile-reinforced mortars (TRM): Project number: NPRP 7 - 1720 - 2 - 641

Role: Lead Principal Investigator

Collaborative investigators: Professor Antonio Nanni, University of Miami, USA and Dr. Ahmed Elrefai,

Laval University, Canada.

Period: 2015-2018

Funded by: Qatar Foundation, Qatar

Fund amount: \$746,616 US

Location of Tenure: Qatar University, University of Miami, Laval University

# 3. UREP Cycle 17: Behavior of Basalt Fiber Reinforced Self-Compacting Concrete: Project number UREP17-065-2-019

Role: Primary Research Mentor

Period: 2015-2016

Funded by: Qatar Foundation, Qatar

Fund amount: \$ 52,900 US

Location of Tenure: Qatar University

# 4. Strengthening of Reinforced Concrete Beams with Textile Reinforced Mortars: QUST-CENG-SPR-13/14-5

Role: Lead Principal Investigator

Period: 2014-2015

Funded by: Qatar University, Qatar

Fund amount: QR 150,000

Location of Tenure: Qatar University

# 5. Developing Cellular Concrete for Load Bearing Structures: Project number: QUUG-CENG-CAE-13/14-9

Role: Lead Principal Investigator Period: 2014-2016 Funded by: Qatar University, Qatar Fund amount: QR 120,000 Location of Tenure: Qatar University

# 6. Textile reinforced mortar for shear strengthening of reinforced concrete beams: Project number: QUST-CENG-SPR-14/15-15

Role: Lead Principal Investigator Period: 2015-2016

Funded by: Qatar University, Qatar

Fund amount: QR 30,000

Location of Tenure: Qatar University

 Bond slip relationships for externally bonded mechanically fastened (EB/MF) fiber reinforced polymer (FRP) system in reinforced concrete structures: Project number: QUST-CENG-SPR-14/15-16

Role: Lead Principal Investigator

Period: 2015-2016

Funded by: Qatar University, Qatar

Fund amount: QR 20,000

Location of Tenure: Qatar University

## 8. Innovative strengthening technique for reinforced concrete structures in the UAE

Role: Principal Investigator (switched to Co-Investigator after joining Qatar University)

Period: Two years starting January 2013

Funded by: National Research Foundation, UAE

Fund amount: AED 320,000

Location of Tenure: United Arab Emirates University

### 9. Strengthening of corrosion-damaged concrete beams with basalt-reinforced mortars

Role: Co- Investigator

Period: Two years starting January 2013

Funded by: National Research Foundation, UAE

Fund amount: AED 400,000

Location of Tenure: United Arab Emirates University

# **10.** Virtual Experimentation-Driven Design Tools for Strengthened Reinforced Concrete Structural Elements in the UAE

Role: Principal Investigator

Period: Two years starting January 2011

Funded by: Emirates Foundations, UAE

Fund amount: AED 120,000 + AED 198,000 of "in-kind" contribution (Total of AED 318,000)

Location of Tenure: United Arab Emirates University

### 11. Self-Compacting Concrete in the UAE: Mechanical Properties and Standardization

Role: Co-Investigator

Period: Two years starting January 2011

Funded by: Emirates Foundations, UAE

Fund amount: AED 140,000 + AED 230,000 of "in-kind" contribution (Total of AED 370,000)

Location of Tenure: United Arab Emirates University

## 12. Mechanics of FRP/Concrete Interfaces

Role: Principal Investigator

Period: April 2004 to March 2006

Funded by: NSERC (Natural Sciences and Engineering Research Council), Canada

Fund amount: \$80,000 CAN

Location of Tenure: University of Sherbrooke, Sherbrooke, Quebec, Canada

# 13. Modeling of the shear behavior of the hybrid externally bonded/ mechanically fastened FRP strengthened concrete beams

Role: Principal Investigator

Period: March 2012 to March 2013

Funded by: United Arab Emirates University, UAE

Fund amount: AED 20,000

Location of Tenure: United Arab Emirates University

# 14. Modelling of the flexural behavior of hybrid externally bonded/ mechanically fastened FRP strengthened concrete beams

Role: Principal Investigator

Period: March 2011 to March 2012

Funded by: United Arab Emirates University, UAE

Fund amount: AED 20,000

Location of Tenure: United Arab Emirates University

# **15.** Mechanically Fastened FRP systems for strengthening RC beams – Experimental studies and finite element modeling: Phase 2-Shear strengthening

Role: Principal Investigator

Period: January 2010 to January 2011

Funded by: United Arab Emirates University, UAE

Fund amount: AED 30,000

Location of Tenure: United Arab Emirates University

# **16.** Mechanically Fastened FRP systems for strengthening RC beams – Experimental studies and finite element modeling: Phase 1-Flexural strengthening

Role: Principal Investigator

Period: December 2008 to December 2009

Funded by: United Arab Emirates University, UAE

Fund amount: AED 30,000

Location of Tenure: United Arab Emirates University

# 17. Finite element modeling of FRP- and steel- strengthened two-way slabs

Role: Principal Investigator

Period: December 2007 to December 2008

Funded by: United Arab Emirates University, UAE

Fund amount: AED 20,000, Location of Tenure: United Arab Emirates University

# **18. Extending Design Life of RC Structures**

Role: Team is composed of 4 investigators contributing equally

Period: Five months, starting July 2010

Funded by: Dubai Municipality

Fund amount: AED 188,000

Location of Tenure: United Arab Emirates University

#### b. Articles published/in-press/under-review in refereed journals (Coauthors with \* are students)

- 1. **Ebead, U.A**, Shrestha, K., Saeed, H. "Lightweight non-autoclaved aerated concrete for structural applications." <u>Structures and Buildings</u>, under-review, 2017.
- Wakjira, T.\* and Ebead, U.A. "Hybrid NSM and EB technique for Shear Strengthening of Reinforced Concrete Beams using FRCM: Experimental study", <u>Construction and Building materials</u>, underreview, 2017.
- Elghazy, M.\*, El Refai, A., Ebead, U.A., and Nanni, A., "Fatigue and Monotonic Behavior of Corrosion-Damaged Reinforced Concrete Beams Strengthened with FRCM composites", <u>Journal</u> <u>of Composites for Construction</u>, under-review 2017.
- Wakjira, T.\* and Ebead, U.A., El-Sherif, H.\* "Shear Strengthening of Reinforced Concrete Beams with Near-Surface Mounted FRCM systems", <u>Construction and Building materials</u>, under-review, 2017.
- Elghazy, M.\* El Refai, A., Ebead, U.A., and Nanni, A., "Corrosion-Damaged Reinforced Concrete Beams Repaired with Fabric-Reinforced Cementitious Matrix (FRCM)", Journal of Composites for Construction, under-review 2017.
- Younis, A.\*, Ebead, U.A., and Judd, S., "Life Cycle Cost Analysis of Structural Concrete Using Seawater, Recycled Concrete Aggregate, and GFRP Reinforcement", <u>Construction and Building</u> <u>materials</u>, under-review, 2017.
- El Refai, A., Ebead, U.A., and Nanni, A., "Post-repair performance of corrosion-damaged beams rehabilitated with fabric-reinforced cementitious matrix (FRCM)", <u>Construction and Building</u> <u>materials</u>, under-review 2017.
- 8. Akbari Hadad, H.\*, Nanni, A., **Ebead, U.A.**, and M. El Refai, A., "Static and Fatigue Performance of FRCM Strengthened Concrete Beams", Journal of Composites for Construction, in-press, 2017.
- Elghazy, M.\*, El Refai, A., Ebead, U.A., and Nanni, A., "Effect of Corrosion Damage on the Flexural Performance of RC Beams Strengthened with FRCM Composites", <u>Composite Structures</u>, V. 180, pages 994-1006, 2017.
- Pino, V.\*, Hadad, H.\*, De Caso, F., Nanni, A., Ebead, U.A., and El Refai, A. "Performance of FRCM Strengthened RC Beams Subject to Fatigue", Journal of Bridge Engineering, V. 22, No. 10, pages 04017079, 2017.
- Younis, A.\*, Ebead, U.A., and Shrestha, K., "Different FRCM Systems for Shear-Strengthening of Reinforced Concrete Beams", <u>Construction and Building Materials</u>, V. 153, pages 514-526, October 2017.
- 12. Ebead, U.A. and Saeed, H.A. "FRP/stirrups interaction of shear-strengthened beams", <u>Materials</u> <u>and Structures</u>, V. 50, No. 2, pages 103, April 2017.
- 13. Ebead, U.A. and Saeed, H.A. "Modeling of inexpensive strengthening technique for RC beams", <u>ACI Structural Journal</u>, V. 113, No. 2, pages 451-462, March-April 2017.
- Ebead, U.A, Shrestha, K., Afzal, M., Refai, A., Nanni, A. "Effectiveness of fabric-reinforced cementitious matrix (FRCM) in strengthening reinforced concrete beams." <u>Journal of Composites</u> <u>for Construction</u>, ASCE, V. 21, No. 2, pages 04016084, April 2017.

- Abdel Baky, H.\*, Ebead, U.A., and Neale, K.W., "Nonlinear finite element analysis of fibrereinforced polymer/concrete joints." <u>Advances in Structural Engineering</u>, V. 19, No. 10, pages 1604-1619, October 2016.
- Ebead, U.A., "Inexpensive strengthening technique for partially loaded Reinforced concrete beams: experimental study" <u>Journal of Materials in Civil Engineering</u>, ASCE, V. 27, No. 10, pages 04015002, October 2015.
- Ebead, U.A. and Saeed, H.A. "Flexural and Interfacial Behavior of Hybrid EB/MF-FRP Strengthened Reinforced Concrete Beams", <u>ACI Structural Journal</u>, V.111, No. 4, pp. 741-752, 2014.
- Ebead, U.A. and Saeed, H. "Numerical Modelling of Shear Strengthened Reinforced Concrete Beams Using Different Systems." Journal of Composites for Construction, ASCE, V. 18, No. 1, pp. 04013031 (1-10). 2014.
- 19. Ebead, U.A. and Saeed, H.A. "Hybrid shear strengthening system for reinforced concrete beams: an experimental study", <u>Engineering Structures</u>, Vol. 49, pp. 421-433, 2013.
- 20. Abdel Baky, H.\*, **Ebead, U.A.**, and Neale, K.W., "Nonlinear micromechanics-based bond–slip model for FRP/concrete interfaces", <u>Engineering Structures</u>, Vol. 39, pp. 11-23, June 2012.
- Saeed, H.A. and Ebead, U.A., "Experimental investigation on the chemical & physical properties of activated glass powder pastes", <u>Advances in Cement Research</u>, DOI: 10.1680/adcr.12.00013, April 2013.
- 22. Saeed, H.A., Arezki Tagnet Hamou, **Ebead, U.A.**, K.W. Neale, "Stoichiometric Study of Activated Glass Powder Hydration", <u>Advances in Cement Research</u>, Vol 24, No. 2, pp. 91-101, 2012.
- 23. Ebead, U.A., "Hybrid Externally Bonded/Mechanically Fastened FRP for RC Beam Strengthening", <u>ACI Structural Journal</u>, Vol. 108, No. 6, pp. 669-678, 2011.
- 24. Ebead, U.A. and Saeed, H.A., "Modeling of reinforced concrete slabs strengthened with FRP or steel plates" <u>ACI Structural Journal</u>, Vol. 107, No. 2, pp. 218-227, 2010.
- Abdel Baky, H.\*, Ebead, U.A., and Neale, K.W., "Statistical analyses and parametric study for reinforced concrete beams strengthened in flexure with FRPs" <u>Advances in Structural</u> <u>Engineering</u>, Vol. 13, No. 5, pp. 805-822, 2010.
- Neale, K.W, Abdel Baky, H.\*, Yahiaoui, A., and Ebead, U.A., "Micromechanical modelling of FRPstrengthened concrete structures" <u>Arch. Civ. Env. Eng. Journal (ACEE)</u>, Vol. 3, No. 1, pp.63-76, 2010.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Mechanically fastened FRP-strengthened two-way concrete slabs with and without cut-outs" Journal of Composites for Construction, ASCE, Vol. 13, No. 3, pp. 198–207, May/June 2009.
- Moon, D.Y., Ebead, U.A., and Benmokrane, B., "Effective surface deformation height and bond rigidity of GFRP reinforcing bar with ribs" <u>Polymers and Polymer Composites</u>, Vol. 17, No. 3, pp. 161-172, April 2009.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Studies on mechanically fastened fiber-reinforced polymer strengthening systems" <u>ACI Structural Journal</u>, Vol. 106, No. 1, pp. 49–59, January/February 2009.

- Kotynia, R., Abdel Baky, H.\*, Neale, K.W. and Ebead, U.A., "Flexural strengthening of RC beams with externally bonded CFRP systems: Test results and 3D nonlinear finite element analysis" <u>Journal of</u> <u>Composites for Construction, ASCE</u>. Vol. 12, No. 2, pp. 190-201, March/April 2008.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Interfacial behavior and debonding failures in FRPstrengthened concrete slabs" <u>Journal of Composites for Construction, ASCE</u>, Vol. 11, No. 6, pp. 629–639, 2007.
- Abdel Baky, H.\*, Ebead, U.A. and Neale, K.W., "Flexural and interfacial behavior of FRPstrengthened reinforced concrete beams" <u>Journal of Composites for Construction, ASCE</u>, Vol. 11, No. 6, pp. 629–639, 2007.
- 33. Ebead, U.A. and Neale, K.W., "Mechanics of fibre-reinforced polymer–concrete interfaces" <u>Canadian Journal of Civil Engineering</u>, Vol. 34, pp. 367–377, 2007.
- Neale, K.W., Ebead, U.A., Abdel Baky, H.\*, Elsayed, W.\* and Godat, A., "Analysis of the load– deformation behaviour and debonding for FRP-strengthened concrete structures" <u>Advances in</u> <u>Structural Engineering</u>, Vol. 9, No. 6, pp. 57–69, 2006.
- 35. Aly, R.S.\*, Benmokrane, B. and **Ebead, U.A.**, "Tensile lap splicing of fiber-reinforced polymer reinforcing bars in concrete" **ACI Structural Journal**, Vol. 103, No. 6, 857–864, 2006.
- 36. Aly, R.S.\*, Benmokrane, B. and **Ebead, U.A.**, "Tensile lap splicing of bundled CFRP reinforcing bars in concrete" Journal of Composites for Construction, ASCE, Vol. 10, No. 4, pp. 287–294, 2006.
- Zhang, B., Benmokrane, B. and Ebead, U.A., "Design and evaluation of fiber-reinforced polymer bond-type anchorages and ground anchor" <u>International Journal of Geomechanics, ASCE</u>, Vol. 6, No. 3, pp. 166–175, 2006.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Modelling of debonding failures in FRP-strengthened two-way slabs" Fiber Reinforced Polymer Reinforcement for Reinforcement Concrete Structures, Shield, C.K., Busel, J.P., Walkup, S.L. and Gremel, D.D., Eds., <u>ACI SP-230</u>, Vol. 1, pp. 461–479, 2005.
- Ebead, U.A. and Marzouk, H., "Tension-stiffening model for FRP-strengthened RC two-way slabs" <u>Materials and Structures/Matériaux et Constructions, RILEM</u>, Paris, Vol. 38, pp. 193–200, 2005.
- 40. Ebead, U.A. and Marzouk, H., "Fiber reinforced polymer strengthening of two-way slabs" <u>ACI</u> <u>Structural Journal</u>, Vol. 101, No. 5, pp. 650–659, 2004.
- 41. Ebead, U.A. and Marzouk, H., "Strengthening of two-way slabs using steel plates" <u>ACI Structural</u> Journal, Vol. 99, No. 1, pp. 26–31, 2002.
- 42. Ebead, U.A. and Marzouk, H., "Strengthening of two-way slabs subjected to moment and cyclic loading" <u>ACI Structural Journal</u>, Vol. 99, No. 4, pp. 435–444, 2002.
- 43. Ebead, U.A., Amin, A., Tarkhan, M. and Helmy, S., "Stress-strain relationships for ferrocement reinforced with expanded metal meshes" Engineering Research Journal, Vol. 62, pp. 14–28, 1999.
- c. Articles in refereed conference proceedings (Coauthors with \* are students)
- Ebead, U.A., Younis, A.\*, El Refai, A., and Nanni, A., (2017) "Tensile and pull-off characterization for TRM rehabilitation systems", <u>The Fifth International Conference on Durability of Fiber</u> <u>Reinforced Polymer (FRP) Composites for Construction and Rehabilitation of Structures (CDCC</u> <u>2017</u>), Sherbrooke, Quebec, July 19-21, 2017.

- Elghazy, M.\*, El Refai, A., Ebead, U.A., and Nanni, A., (2017) "Corrosion-damaged beams repaired with carbon-fabric-reinforced cementitious matrix", <u>The Fifth International Conference on</u> <u>Durability of Fiber Reinforced Polymer (FRP) Composites for Construction and Rehabilitation of</u> <u>Structures (CDCC 2017)</u>, Sherbrooke, Quebec, July 19-21, 2017.
- Ebead, U.A., Younis, A.\*, and Shrestha, K.C., (2017) "Shear Strengthening of Reinforced Concrete Beams Using Fabric-Reinforced Cementitious Matrix" <u>ISEC-9, The Ninth International Structural</u> <u>Engineering and Construction Conference</u>, Valencia, Spain July 24-July 29, 2017.
- Younis, A.\*, Ebead, U.A., and Shrestha, K.C., (2017) "Tensile Characterization of Textile Reinforced Mortar" Accepted in ISEC-9, The Ninth International Structural Engineering and Construction <u>Conference</u>, Valencia, Spain July 24-July 29, 2017.
- Younis, A.\*, Ebead, U.A., and Nanni, A., (2017) "Applicability of Using Seawater Accompanied by FRP Reinforcement in Concrete Structures" <u>ISEC-9, The Ninth International Structural Engineering</u> and Construction Conference, Valencia, Spain July 24-July 29, 2017.
- Ebead, U.A., Younis, A.\*, and Shrestha, K.C., (2017) "Effect of Surface Preparation on the Bond behavior between Concrete Substrate and Strengthening Layer of Textile Reinforced Mortar" <u>ISEC-9, The Ninth International Structural Engineering and Construction Conference</u>, Valencia, Spain July 24-July 29, 2017.
- Ebead, U.A., Shrestha, K.C., Afzal, M.S., El Refai, A., and Nanni, A., (2016) "Effectiveness of FRCM system in Strengthening Reinforced Concrete Beams" <u>The 4<sup>th</sup>-International Conference in</u> <u>Sustainable Construction Materials and Technologies (SCMT4)</u>, Las Vegas, Nevada, August 7-11. 2016.
- M. Elghazy, El Refai, A., Ebead, U.A., and Nanni, A., (2016) "Performance of Corrosion-Aged Reinforced Concrete (RC) Beams Rehabilitated with Fabric-Reinforced Cementitious Matrix (FRCM)", <u>The 4<sup>th</sup> International Conference in Sustainable Construction Materials and Technologies</u> (SCMT4), Las Vegas, Nevada, August 7-11. 2016.
- Pino, V.\*, Hadad, H., De Caso, F., Nanni, A., Ebead, U.A., El Refai, A. (2016) "Performance of FRCM Strengthened RC Beams Subject to Fatigue", <u>The 4<sup>th</sup> International Conference in Sustainable</u> <u>Construction Materials And Technologies (SCMT4)</u>, Las Vegas, Nevada, August 7-11. 2016.
- Ebead, U.A., (2015) "FRP/stirrups interaction for mechanically fastened FRP strengthened beams in shear" <u>The Third Conference on Smart Monitoring, Assessment and Rehabilitation of Structures</u> (SMAR 2015), 7-9 September, Antalya, Turkey, 10 p.
- Ebead, U.A., (2015) "Numerical modeling of ferrocement-strengthened RC beams" <u>The Third</u> <u>Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR 2015)</u>, 7-9 September, Antalya, Turkey, 10 p.
- Ebead, U.A. and Saeed, H.A., "Finite element modelling of hybrid MF/EB FRP strengthened RC beams" <u>11<sup>th</sup> International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-11</u>, Guimaraes, Portugal, 26–28 June, 2013.
- Ebead, U.A. and Saeed "Hybrid mechanically fastened/externally bonded FRP for RC beam shear strengthening" <u>6th International Conference on FRP Composites in Civil Engineering, CICE</u>, Rome, Italy, June 2012, 8 p.

- 14. **Ebead, U.A.** and Saeed, H.A., "Flexural and Punching Shear and Capacities of Steel Strengthened Slabs", Proceedings of <u>The Sixth International Structural Engineering and Construction Conference</u> (ISEC-6), June 21-26, Zürich, Switzerland., 2011.
- 15. **Ebead, U.A.**, Mwafy, A.M., and Saeed, H.A., "Bonded/Mechanically Fastened FRP for RC Beam Strengthening", Proceedings of <u>The Sixth International Structural Engineering and Construction</u> <u>Conference (ISEC-6)</u>, June 21-26, Zürich, Switzerland, 2011.
- Mwafy, A.M., and Ebead, U.A., 2011, "Evaluation of the seismic design factors of RC multi-story buildings", Proceedings of <u>The Sixth International Structural Engineering and Construction</u> <u>Conference (ISEC-6)</u>, June 21-26, Zürich, Switzerland, 2011.
- Ebead, U.A., "Mechanically fastened FRP flexural strengthening of reinforced concrete beams" in the <u>13<sup>th</sup> Structural Faults & Repair-2010</u> conference proceedings (ISBN 0-947644-67-9), Structural Faults & Repair-2010, Edinburgh, Scotland, 15–17 June 2010.
- Ebead, U.A. and Saeed, H.A., "Finite element modelling of FRP- and steel- strengthened two-way slabs" <u>9th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete</u> <u>Structures, FRPRCS-9</u>, Sydney, Australia, 13–15 July, 2009.
- Abdel Baky, H.\*, Ebead, U.A. and Neale, K.W., "Proposed constitutive law for FRP/Concrete interfaces based on nonlinear micromechanics finite element analyses" <u>9<sup>th</sup> International</u> <u>Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-9,</u> Sydney, Australia, 13–15 July, 2009.
- 20. **Ebead, U.A.**, "Analysis of strengthened slab-to-column connections" Proceedings of the <u>9<sup>th</sup> Annual</u> <u>UAE University Research Conference</u>, CD-ROM version, pp. 10, Al Ain, UAE, April 13-16, 2009.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Analysis of mechanically fastened FRP-strengthened concrete structures" <u>5<sup>th</sup> International Conference on Advanced Composite Materials in Bridges</u> <u>and Structures (ACMBS-V)</u>, Winnipeg, Manitoba, Canada, 22–24 September, 2008.
- 22. Abdel Baky, H.\*, Ebead, U.A. and Neale, K.W., "Numerical aspects concerning the accuracy of finite element simulations of concrete beams strengthened in flexure using FRP sheets" 5<sup>th</sup> <u>International Conference on Advanced Composite Materials in Bridges and Structures (ACMBS-V)</u>, Winnipeg, Manitoba, Canada, 22–24 September, 2008.
- Elsayed, W.\*, Ebead, U.A. and Neale, K.W., "Investigations on mechanically fastened FRPstrengthened concrete slabs" <u>4<sup>th</sup> International Conference on FRP Composites in Civil Engineering</u> (<u>CICE2008</u>), Zurich, Switzerland, 22–24 July 2008.
- Abdel Baky, H.\*, Neale, K.W. and Ebead, U.A., "Nonlinear micromechanics-based FE analysis of FRP-strengthened concrete structures" <u>4<sup>th</sup> International Conference on FRP Composites in Civil</u> <u>Engineering (CICE2008)</u>, Zurich, Switzerland, 22–24 July 2008.
- 25. Abdel Baky, H.\*, Ebead, U.A. and Neale, K.W., "Proposed design equations for the debonding strain level in FRP strengthening laminates for reinforced concrete beams strengthened in flexure" <u>The Fifth Middle East Symposium on Structural Composites for Infrastructure Applications</u>, Hurghada, Egypt, 23–25 May, 2008.
- 26. Sim, J., Moon, D., Oh, H. and Ebead, U.A., "Durability of GFRP rebar with ribs containing milled glass in alkali environment of concrete" <u>3<sup>rd</sup> International Conference on Durability & Field</u> <u>Applications of Fiber Reinforced Polymer (FRP) Composites for Construction</u>, Quebec, Canada, 22– 24 May, 2007.

- Ebead, U.A., Abdel Baky, Neale, K.W., "Statistical and finite element analysis of FRP-strengthened concrete beams" <u>8<sup>th</sup> International Symposium on Fiber Reinforced Polymer Reinforcement for</u> <u>Reinforced Concrete Structures (FRPRCS-8)</u>, Patras, Greece, 16–18 July, 2007.
- Neale, K.W. and Ebead, U.A., "Towards understanding failure mechanisms in FRP-strengthened concrete structures" <u>Second International Conference on Recent Advances in Composite</u> <u>Materials [ICRACM]</u>, India Habitat Centre, New Delhi, India, 20–23 February, 2007.
- 29. Neale, K.W., **Ebead, U.A.,** Abdel Baky, H.\*, Elsayed, W.\* and Godat, A., "Analysis of debonding failures in FRP-strengthened concrete beams and slabs" <u>3<sup>rd</sup> International Conference on FRP</u> <u>Composites in Civil Engineering (CICE 2006)</u>, Miami, Florida, 13–15 December, 2006.
- 30. Elsayed, W.\*, **Ebead, U.A.** and Neale, K.W., "Analysis of FRP-strengthened two-way slabs" <u>2<sup>nd</sup></u> <u>International *fib* Congress</u>, Paper ID 10–7, 10 p., Naples, Italy, 5–8 June 2006.
- 31. Neale, K.W., Ebead, U.A., Abdel Baky, H.\*, Elsayed, W.\* and Godat, A., "Modelling of Debonding Phenomena in FRP-strengthened concrete beams and slabs" in <u>Bond Behaviour of FRP in</u> <u>Structures</u>, Chen, J.F. and Teng, J.G., eds., , pp. 45–54, International Institute for FRP in Construction, Hong Kong, 2005.
- Ebead, U.A. Neale, K.W. and Abdel Baky, H.\*, "Debonding failures in FRP-strengthened concrete beams: a simplified analysis based on response surface methodology" <u>1<sup>st</sup> International Structural</u> <u>Specialty Conference</u>, Calgary, Alberta, 23–26 May 2006.
- Abdel Baky, H.\*, Ebead, U.A. and Neale, K.W., "Modelling of the flexural behaviour and debonding for FRP-strengthened concrete beams" in Proceedings of the Third International Conference on <u>Composites in Construction 2005</u>, Hamelin, P., Biguaud, D., Ferrier, E. and Jacquelin, E., Eds., Université Lyon I, Vol. 1, pp. 139–146, Lyon, France, 11-13 July 2005.
- 34. **Ebead, U.A.** and Neale, K.W., "Interfacial behaviour of FRP-concrete joints subjected to direct shear" Proceedings of the <u>33<sup>rd</sup> CSCE Annual General Conference</u>, Toronto, Ontario, 2–4 June, 2005.
- Ebead, U.A., Neale, K.W. and Bizindavyi, L., "On the interfacial mechanics of FRP-strengthened concrete structures" in <u>FRP Composites in Civil Engineering – CICE 2004</u>. R. Seracino, Ed., A.A. Balkema Publications, pp. 351–359, Adelaide, Australia, 2004.
- 36. Abdel Baky, H.\*, Ebead, U.A., Masmoudi, R. and Neale, K.W., "Analysis of the flexural response of FRP-strengthened concrete beams" in the Proceedings of The Fourth International Conference on <u>Advanced Composite Materials in Bridges and Structures</u>, El-Badry, M. and Dunaszegi, L., Eds., Canadian Society for Civil Engineering, 8 p., Calgary, Canada, 20-23 July 2004.
- Ebead, U.A. and Marzouk, H., "ACI code verification for FRP externally reinforced slabs" <u>2<sup>nd</sup></u> <u>International Workshop on Structural Composites for Infrastructure Applications</u>, December 17– 18, Sponsored by the National Science Foundation (NSF) Housing and Building Research Center (HBRC), 10 p., Cairo, Egypt, 2003.
- Marzouk, H., Ebead, U.A. and Neale, K.W., "Flexural strengthening of two-way slabs using FRPs" in <u>Proceedings of the Sixth International Symposium on FRP Reinforcement for Concrete</u> <u>Structures (FRPRCS-6)</u>, Tan, K.H., Ed., World Scientific Publishing Co., Vol. 1, pp. 427–436, Singapore, 8-10 July 2003.
- 39. Marzouk, H., **Ebead, U.A.** and Neale, K.W., "Tensile properties of concrete in FRP strengthened two-way slabs" in Proceedings of the Sixth International Symposium on FRP Reinforcement for

<u>Concrete Structures (FRPRCS-6)</u>, K.H. Tan, Ed., World Scientific Publishing Co., Vol. 1, pp. 437–446., Singapore, 8-10 July 2003.

- 40. Ebead, U.A. and Marzouk, H., "Experimental study on two-way slabs strengthened using fiber reinforced plastics" in Proceedings of the <u>Third Middle East Symposium on Structural Composites</u> <u>for Infrastructure Applications</u>, Abdel-Hady Hosny and Amr Abdelrahman, Eds. The Egyptian Society of Engineers, page 1171, Cairo, Egypt, 17-20 December 2002.
- Ebead, U.A. and Marzouk, H. (2002): Theoretical study on two-way slabs strengthened using fiber reinforced plastics" in Proceedings of the <u>Third Middle East Symposium on Structural Composites</u> <u>for Infrastructure Applications</u>, Abdel-Hady Hosny and Amr Abdelrahman, Eds. The Egyptian Society of Engineers, page 1171, Cairo, Egypt, 17-20 December 2002.
- 42. **Ebead, U.A.,** Marzouk, H. and Lye L., "Strengthening of two-way slabs using FRP materials: A simplified analysis based on response surface methodology" In Proceedings of the <u>Second World Engineering Congress</u>, pp. 82–89, Sarawak, Malaysia, 2002.
- 43. **Ebead, U.A.,** Tarkhan, M., Amin, A. and Helmy, S., "Nonlinear analysis of repaired RC sections by ferrocement layers" In Proceedings of the <u>Fourth International Conference on Civil and Architecture Engineering</u>, Military Technical College, pp. 1–17 Cairo, Egypt, 2002.
- 44. **Ebead, U.A.,** Tarkhan, M., Amin, A. and Helmy, S., "Repair and strengthening of partially loaded reinforced concrete beams" In Proceedings of the <u>Second International Conference</u>, pp. 511–524, El-Menia University, El-Menia, Egypt, 2002.
- 45. Ebead, U.A. and Marzouk, H., "Analysis of reinforced concrete repaired and un-repaired two-way flat slabs" in Proceedings of the <u>18<sup>th</sup> Canadian Congress of Applied Mechanics</u>, Memorial University of Newfoundland, Vol. 2, pp. 195–196, 2001, St. John's, Newfoundland, Canada, 3-7 June 2001.
- 46. Ebead, U.A. and Marzouk, H., "Evaluation of the rehabilitation of reinforced concrete two-way slabs" in Proceedings of the <u>4<sup>th</sup> International Conference on Structural and Geotechnical</u> <u>Engineering</u>, Vol. 2, pp. 213–223, Alexandria, Egypt, 2001.

# d. Other publications

- 1. **Ebead, U.A.**, "Modeling of the shear behavior of the hybrid externally bonded/ mechanically fastened FRP strengthened concrete beams" Final research report, submitted to Research Affairs, UAE University, Al Ain, UAE, 2013.
- 2. **Ebead, U.A.**, "Modelling of the flexural behavior of hybrid externally bonded/ mechanically fastened FRP strengthened concrete beams" Final research report, submitted to Research Affairs, UAE University, Al Ain, UAE, 2012.
- 3. **Ebead, U.A.**, "Mechanically Fastened FRP systems for strengthening RC beams Experimental studies and finite element modeling: Phase 2-Shear strengthening" Final research report, submitted to Research Affairs, UAE University, Al Ain, UAE, 2010.
- 4. **Ebead, U.A.**, "Mechanically Fastened FRP systems for strengthening RC beams Experimental studies and finite element modeling: Phase 1-Flexural strengthening" Final research report, submitted to Research Affairs, UAE University, Al Ain, UAE, 2009.
- 5. **Ebead, U.A.**, "Finite element modeling of FRP- and steel- strengthened two-way slabs" Final research report, submitted to Research Affairs, UAE University, Al Ain, UAE, 2008.

- 6. **Ebead, U.A.**, "Strengthening of reinforced concrete two-way slabs" PhD dissertation, Faculty of Engineering and Applied Science, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, 2002.
- Ebead, U.A. and Marzosuk, H., "Strengthening of reinforced concrete two-way slabs" Technical Report. Faculty of Engineering and Applied Science, Memorial University of Newfoundland, 245 p. St. John's, Newfoundland, Canada, 2002.
- 8. **Ebead, U.A.**, "Engineering design with AutoCAD, Engineering Graphics ENGI 1504-02 Course Notes" Units 1 and 2" Faculty of Engineering and Applied Science, Memorial University of Newfoundland, 110 p, St. John's, Newfoundland, Canada, 2001.

#### e. Thesis supervision

PhD supervision:

1. Ph.D. thesis (Ongoing): Sustainable concrete using seawater, recycled aggregates and noncorrosive reinforcement, Qatar University

Role: Main supervisor

Student name: Younis, Adel

Status: Ongoing

Completion date: September 2019

Supervisor: sole supervision by Dr. Usama Ebead

2. Ph.D. Thesis (Completed): Strengthening of reinforced concrete two-way slabs using FRP composites, University of Sherbrooke, Sherbrooke, QC, Canada

Role: Secondary supervisor

Student name: Elsayed, W.

Status: Completed, January 2008

Supervisory committee also included Dr. K.W. Neale, University of Sherbrooke as main supervisor.

3. Ph.D. Thesis (Completed): Numerical Modelling of FRP-Strengthened RC Beams, University of Sherbrooke, Sherbrooke, QC, Canada

Role: Secondary supervisor

Student name: Abdel Baky, H.

Status: Completed, April 2008

Supervisory committee also included Dr. K.W. Neale, University of Sherbrooke as main supervisor.

# 4. Ph.D. Thesis (Completed): Experimental and Analytical Studies on Bond Behaviour of Tensile Lap Spliced FRP Reinforcing Bars in Concrete, University of Sherbrooke, Sherbrooke, Canada

Role: Secondary supervisor

Student name: Aly, R.

Status: Completed, May 2005

Supervisory committee also included Dr. B. Benmokrane, University of Sherbrooke as main supervisor. **M.SC. Supervision** 

# 1. M.Sc. Thesis (Ongoing): Shear strengthening of reinforced concrete beams with FRCM systems, Qatar University

Role: Main supervisor

Student name: Wakjira, Tadesse

Status: Ongoing

Expected completion date: September 2018

Supervisor: sole supervision by Dr. Usama Ebead

# 2. M.Sc. Thesis (Ongoing): Aluminium reinforced mortars for reinforced concrete beam strengthening, Qatar University

Role: Main supervisor

Student name: Elgaar, Moustafa

Status: Ongoing

Expected completion date: September 2019

Supervisor: sole supervision by Dr. Usama Ebead

# 3. M.Sc. Thesis (Ongoing): Flexural strengthening of reinforced concrete beams with NSM-FRCM systems, Qatar University

Role: Main supervisor

Student name: El-Sherif, HossamEldin

Status: Ongoing

Expected completion date: September 2019

Supervisor: sole supervision by Dr. Usama Ebead

# 4. M.Sc. Thesis (Ongoing): Innovative flexural strengthening technique for reinforced concrete beams with FRP systems, Qatar University

Role: Main supervisor

Student name: Ibrahim, Mohamed Amin

Status: Ongoing

Expected completion date: September 2019

Supervisor: sole supervision by Dr. Usama Ebead

# 5. M.Sc. Thesis (Completed): Strengthening of reinforced concrete beams with textile reinforced mortars, Qatar University

Role: Main supervisor

Student name: Afzal, Muhammad

Status: Completed

Completion date: January 2016

Supervisor: sole supervision by Dr. Usama Ebead

Nominated for best thesis award

### f. Thesis examination (all at Qatar University)

- Student Name: Mrs. Alaa Ghassan Abutaqa
   Thesis Title: Elastic Properties of Nano Composite Cementitious Materials
   My role: Examiner
   Date: June 8, 2015
- Student Name: Mr. Mohamed Omar Mohsen
   Thesis Title: Effect of Mixing Patterns & Dispersing Surfactant on the Dispersion and Flexural
   Strength of Multi-Walled Carbon Nanotubes (MWCNT) cement Composites
   My role: Examiner
   Date: December 22, 2016

#### 3- Mr. Abdullah Shameem Ahmed Thesis Title: Gap Acceptance Behavior of Pedestrians at a Midblock Section in Doha, Qatar My role: Chair Date: January 5, 2016

Student Name: Ms. Maha Mahmoud Sobhey Abdelbaset
 Thesis Title: Livability in High-Rise Districts: Case Study of West Bay Tall Buildings
 My role: Chair
 Date: January 20, 2015

#### g. Advising: Research direction

#### Undergraduate level

- At QU, training an undergraduate student, Mr. HossamEldin El-Sherif, to work on NPRP Cycle #7: Strengthening of corrosion-damaged reinforced concrete structures with textile-reinforced mortars (TRM): Project number: NPRP 7 - 1720 - 2 – 641.
- At QU, mentoring 6 research students on UREP research grant on research project entitled "Behavior of Basalt Fiber Reinforced Self-Compacting Concrete" (2015-2016).
- At QU, mentoring 2 students on a student internal grant on a project entitled "Strengthening of Reinforced Concrete Beams with Textile Reinforced Mortars" (2014-2015).
- At QU, mentoring 2 students on a student internal grant on a project entitled "Textile reinforced mortar for shear strengthening of reinforced concrete beams" (2015-2016).
- At QU, mentoring 2 students on a student internal grant on a project entitled "Bond-slip relationships for externally bonded mechanically fastened (EB/MF) fiber reinforced polymer (FRP) system in reinforced concrete structures" (2015-2016).
- At UAEU, mentoring one student, Mr. Alaa Maali, on research project entitled "Mechanically Fastened FRP systems for strengthening RC beams – Experimental studies and finite element modeling: Phase 1-Flexural strengthening" (2008-2009).

#### h. Outreach through conference participation

Dr. Ebead attended and presented (or will) his work in the following international and local conferences:

- The Fifth International Conference on Durability of Fiber Reinforced Polymer (FRP) Composites for Construction and Rehabilitation of Structures (CDCC 2017), Sherbrooke, Quebec, July 19-21, 2017.
- The Ninth International Structural Engineering and Construction Conference, ISEC-9, Valencia, Spain July 24-July 29, 2017.
- The 4th International conference in Sustainable Construction Materials and Technologies (SCMT4), Las Vegas, Nevada, August 7-11. 2016.
- The Third Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR 2015), 7-9 September, Antalya, Turkey, 10 p.
- 11th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-11, Guimaraes, Poland, 26-28 June, 2013.
- The 6th International Conference on FRP Composites in Civil Engineering, CICE, Rome, Italy, June 2012.
- The sixth International Structural Engineering and Construction Conference (ISEC-6), June 21-26, Zürich, Switzerland, 2011.
- The 13th Structural Faults & Repair-2010, Edinburgh, Scotland, 15 17 June 2010.
- 9th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-9, Sydney, Australia, 13-15 July, 2009.
- 4th International Conference on FRP Composites in Civil Engineering (CICE2008), Zurich, Switzerland, 22 24 July 2008.

- The Fifth Middle East Symposium on Structural Composites for Infrastructure Applications, Hurghada, Egypt, 23-25 May, 2008.
- 3rd International Conference on Durability & Field Applications of Fiber Reinforced Polymer (FRP) Composites for Construction, Quebec, Quebec, Canada, 22–24 May, 2007.
- 8th International Symposium on Fiber Reinforced Polymer Reinforcement for Reinforced Concrete Structures (FRPRCS-8), Patras, Greece, 16–18 July, 2007.
- 1st International Structural Specialty Conference, Calgary, Alberta, 23–26 May, 2006
- ACI Convention, Denver, Colorado, USA, November 2006.
- 7th International Conference on Short and Medium Span Bridges, Canada, August 2006.
- ISIS Canada 11th Annual Conference, Calgary, Alberta, Canada, May 2006.
- 7th International Symposium on Fiber Reinforced Polymer (FRP) Reinforcement for Concrete Structures (FRPRCS-7), Kansas City, Missouri, USA, November 2005.
- ACI Convention, Kansas City, Missouri, USA, November 2005.
- Third International Conference on Composites in Construction (CCC 2005), France, July 2005.
- 33rd Annual Conference of the Canadian Society for Civil Engineering, Toronto, Ontario, Canada, June 2005.
- Fourth International Conference on Advanced Composite Materials for Bridges and Structures (ACMBS-4), Calgary, Canada, July 2004.
- ISIS Canada 9th Annual Conference, Halifax, Nova Scotia, Canada, May 2004.
- ACI Convention, Boston, Massachusetts, USA, September 2003.
- 6th International Symposium on Fiber Reinforced Polymer for Reinforced Concrete Structures (FRPRCS-6), Singapore, July 2003.
- ISIS Canada 8th Annual Conference, Vancouver, British Colombia, Canada, May 2003.
- Third Middle East Symposium on Structural Composites for Infrastructure Applications (MESC-3), Aswan, Egypt, December 2002.
- Eighteenth Canadian Congress of Applied Mechanics, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, June 2001.
- Fourth International Conference on Structural and Geotechnical Engineering, Alexandria, Egypt, April 2001.

# 4. Teaching, Mentoring, and Advising

Dr. Ebead has been awarded the Certificate for Excellence in Research/Teaching at the College of Engineering, QU, 2016 and Dean's Award in Teaching "Targeting Excellence in Teaching and Learning", QU, 2015.

# a. Courses taught at Qatar University (2013- present)

- 1. Advanced Special Topics in Civil Engineering CVEN651 (Post Graduate, PG)
- 2. Finite Element Method, CVEN504 (PG)
- 3. Design of Reinforced Concrete Members, CVEN320 (Undergraduate, UG)
- 4. Design of Reinforced Concrete structures, CVEN422 (Undergraduate, UG)
- 5. Structural & Architectural Form 2 RC design, ARCT 340 (UG)
- 6. Analysis of Structures, CVEN 220 (UG)
- 7. Civil Engineering Design Project I, CVEN401 (UG)
- 8. Civil Engineering Design Project II, CVEN402 (UG)

- 9. Structural & Architectural Form 2 Steel & Shell Structures, ARCT 341 (UG)
- 10. Engineering Graphics, GENG111 (UG)

## b. Courses taught at the United Arab Emirates University (2007-2013)

- 1. Computer Application in CE (PG)
- 2. Finite Element Method: Theory and Applications (PG)
- 3. Reinforced Concrete Design II: (UG)
- 4. Structural Analysis (UG)
- 5. Matrix Structural Analysis (UG)
- 6. Reinforced Concrete design for Architectural Engineering (UG)
- 7. Statics (UG)
- 8. Mechanics of Materials (UG)
- 9. Graduation Project I (UG)
- 10. Graduation Project II (UG)

## c. A course taught at Memorial University of Newfoundland (2001)

1. Engineering Graphics (UG) (ENG1504)

### d. Course Development and teaching practices

- Dr. Ebead has been a dedicated teacher as recognized by the appreciation of the students and the college. He received two teaching awards for his excellence in teaching in both 2015 and 2016.
- Dr. Ebead always complete a full course portfolio/file that includes the following components:
  - 1- Course Syllabus
  - 2- Course Teaching Philosophy
  - 3- Teaching Material (Slides, Lecture Notes, etc.)
  - 4- Copies of Assessment Tools
    - a. Always uses a mix of assessment tools that include:
      - i. Assignments
      - ii. In-class activities
      - iii. Quizzes
      - iv. Midterm exam
      - v. Project
        - 1. Design
        - 2. Lab
      - vi. Final exam
  - 5- Course Outcome–Assessment Matrix
  - 6- Graded Samples of Student's Work
  - 7- Lab. Materials (Including Graded Samples of Students Lab. Work)
  - 8- Reflections on Course Improvement
- Dr. Ebead developed the entire course materials and PowerPoint Presentation for most of his courses particularly,
  - 1- Reinforced concrete design courses
  - 2- Analysis of structures courses
  - 3- All graduate courses he taught (listed above)

- 4- Engineering drawings and graphics courses
- Dr. Ebead benefits from the Peer Observation Program, a three-step process that involves a preobservation meeting, the class observation and a post observation meeting.
- Dr. Ebead communicates effectively with the students through the Blackboard System where all announcement, materials, questions and answers are shared among the course participants.
- Dr. Ebead also encourages students to send questions via email and he answers them immediately as they are always taken priority. He also shares good questions with other students to benefit.
- Dr. Ebead adopts problem-solving strategy in some of his courses and encourages group work in all of his courses. He progressively integrating other learning techniques into his class such as flipped classroom.
- Dr. Ebead uses varied assessment methods to enhance the student learning of the course. These assessment methods include home assignments, in-class activities, quizzes, midterm exam, project (design and/or lab), and final exam. He always devotes time to discuss the results of the assessment methods with the students either in-class or in his office.
- Dr. Ebead is consistently praised by his students through personal meetings and emails. In addition, the student evaluations of his teaching indicate consistent and steadily increasing student satisfaction of the learning experience with Dr. Ebead.
- Dr. Ebead deals with end-of-semester surveys of course learning outcomes very seriously and he uses processed results of these surveys to continuously improve his course offering.
- Dr. Ebead uses learning activities to encourage student engagement. In several circumstances, Dr. Ebead used analogies between the lectured concepts and real-life applications.
- Dr. Ebead integrated creative technology in teaching and learning. For example, Dr. Ebead used a touch screen tablet to deliver his lecture slides with an attractive fashion to add to the content and to produce explanation easily and share edited and marked-up notes with the students.
- Dr. Ebead has often utilized YouTube videos related to the lecture topic to attract the attention and interest of students.

### e. Advising: Other than Research Direction

### Undergraduate level

- At QU, Dr. Ebead is an academic Advisor for eighteen (18) undergraduate students
- At QU, Dr. Ebead is the Program Focal Person for student advising.
- At QU, Dr. Ebead is the program coordinator of the civil Engineering Program
- At QU, Dr. Ebead supervises students during their civil engineering senior design project courses (CVEN401 and CVEN 402).
- At QU, Dr. Ebead has mentored six (6) undergraduate students on UREP research grant.
- At UAEU, Dr. Ebead was the academic advisor of students attending their Industrial Training course.
- At UAEU, Dr. Ebead was the academic advisor for twenty (20) students.

#### 5. Services

### a. Scientific and professional

- An Editorial Panel Member of Structures and Buildings journal (November 2017-)
- Professional Engineers Ontario, Ontario, Canada: Licensed member since 2004.
- American Society of Civil Engineers (ASCE): Member during 2006–2009 and 2015–present.
- American Concrete Institute (ACI): Member during 2006 Present.
- Canadian Society for Civil Engineering (CSCE): Member during 2006 2008.
- Syndicate of Egyptian Engineers (SEE): Registered member during 1994–present.
- ACI Committee 440, Fiber Reinforced Polymer Reinforcement: Associate member during 2006 2012.
- ACI Committee 440, Fiber Reinforced Polymer Reinforcement: Associate member during 2006 2012.
- School of Graduate Studies, Memorial University of Newfoundland: Fellow since 2002.
- International Institute for FRP in Construction (IIFC): Member During 2007-2012.
- Held a position ASCE Student Chapter Practitioner Advisor since August 2010 until August 2013.

#### b. Reviewing activities

- Refereeing research papers in the following scientific journals and conferences
  - o Journal of Composites for Construction
  - o ACI Structural Journal
  - Engineering Structures
  - Construction and Building Materials
  - o Journal of Engineering Research
  - o Reviewer for Research Proposals for enabling grants at the University of Sharjah, UAE
  - ISEC-9, the Ninth International Structural Engineering and Construction Conference, Valencia, Spain July 24-July 29, 2017.
- Dr. Ebead is a member of the Recruitment Committee that reviewed and evaluated job applications in the Civil and Architectural Engineering Department, QU.
- Dr. Ebead was a member of the Selection and Recruitment Committee that reviewed and evaluated job applications in the Civil and Environmental Engineering Department, UAEU.
- Dr. Ebead was on the ad-hoc committee that sets guidelines for the annual evaluation of faculty members in the Civil and Environmental Engineering Department, UAEU.
- Dr. Ebead peer-evaluated research proposals for faculty members at the College of Engineering at QU.
- Dr. Ebead peer-evaluated research proposals for faculty members at the Civil and Environmental Engineering Department at the UAEU.
- Dr. Ebead has served as a Department examiner of many Senior Design projects at QU.
- Dr. Ebead has served as a Department and College examiner of many graduation projects at the UAEU.

- Dr. Ebead contributed every semester as a member of the Examinations Committees in supervising and proctoring final exams of the General Education courses at the UAEU.
- Dr. Ebead was on the examination Committee of MSc and PhD theses at different universities.
- Refereeing research papers in the following scientific conferences
  - 11th Arab Structural Engineering Conference (ASEC), King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia, October 2009
  - o 7th International Conference on Composite Science & Technology (ICCST/7), UAE, 2009
  - Third International Conference on Durability & Field Applications of Fiber Reinforced Polymer (FRP) Composites for Construction, Quebec City, Quebec, Canada, May 2007

#### c. Services at Qatar University

- Chair of the Civil Engineering Department Curriculum Committee: January 2015 until present.
- Coordinator of the Civil Engineering Program: February 2016 until present.
  - Responsible for overseeing the assessments and evaluation for the program's Student Outcomes, the writing up of the assessment annual report, and the periodical review of the Program Educational Objectives.
  - Lead the effort for the program continuous improvement, and curriculum review.
  - Assist in preparing the program for successful accreditation visits, and university internal review.
  - Recommend to the Department Head the courses that should be offered in a given semester based on the input from program faculty and students.
- Focal Person of the Civil Engineering Program: September 2015 until present.
  - Dealing with the students' academic concerns, suggestions and feedback. Liaise with the Department head and other faculty members on resolving academic students' issues.
  - Providing academic consultation to all students, particularly to students newly admitted to the program and under warning or on probation.
  - Coordinating with the Academic Advising Office (AAO), Department head and other faculty members on monitoring the academic progress for students under warning, or on probation.
  - Providing clarifications on the program recommended study plan to ensure the successful completion of degree requirements and timely graduation.
  - Giving advice on the scientific content of courses, and refer students to the appropriate faculty members when necessary.
  - Giving advice on courses to take, to prepare for a specific job, career track or for postgraduate study.
  - Giving advice on elective courses that are consistent with the students' abilities, interests and career goals.
  - Liaising with the department in offering the elective courses that meet the interest, and the graduation requirements of most of the students.
  - Providing clarifications on some program requirements, policies and procedures.
  - Providing clarifications about senior projects and practical training.

- Providing information about undergraduate research opportunities international competitions and student club.
- Coordinating with the university Student Career Service Center, and other faculty members on student job opportunities.
- Coordinating scientific activities with student professional societies and clubs.
- Coordinator of the Student Outcome Assessment activities in the Civil Engineering Program: September 2015 until present.
- Member of the Civil Engineering Department Curriculum Committee: September 2013-January 2015.
- Academic Advisor for 18 undergraduate students in the Civil Engineering Program: January 2017 until present.
- Co-chair with HOD of the preparation committee of the self-study report and display room for ABET visit: September 2016 until December 2016.
  - Prepared the Civil Engineering Program for a successful visit of Engineering Accreditation Commission of ABET that took place in December 2016.
  - Significantly contributed to the write up of the ABET self-study report.
  - Significantly administered the efforts for displaying the required ABET materials.
- Member of the Internal ABET Mock visit preparation committee: January 2015 until March 2015.
- Member of the External ABET Mock visit preparation committee: March 2015 until December 2015.
- Responsible for the preparation of interim and full annual assessment reports: January 2015 until present.
- Responsible for the preparation of the Senior Design Project kit with all the assessment and grading rubrics for the department: September 2013-Present.
- Tutor and Presenter of the ABET awareness among faculty members and students in the Civil Engineering Program: Different dates.
- Adviser and instructor of two Honor Program students: Different dates.
- Chair of the Lab Committee-Civil Engineering Department: January 2014 until December 2016.
- Chair/member of the Department Recruitment Committee: different dates.
- Secretary of the Industry Advisory Board Committee of Civil Engineering: different dates.
- Chair of the Taskforce: Ways to improve the student's success: April 2016 until June 2016.
- Chair of the Taskforce: The effect of class size on student success: October 2016 until December 2016.
- Member of the Taskforce: Reviewing Courses with Similar Description: February 2017 until present.
- Member of the Taskforce: Balanced Workload for Students: February 2017 until present.
- Presenter at the Workshop on nondestructive tests on January 22, 2014: January 22, 2014.
- Adviser of the Students in the Department of Architectural and Urban Planning as part of collaboration with the Department of Civil and Architectural Engineering: Different dates.

- Attended several Department and College seminars: Different dates.
- Member of the Taskforce: Requirements for the EAC design aspect: May 2015 to June 2015.
- Member of the Examination of graduate students: Multiple dates.
- Participated in the Assessment Days 2014: 12 and 13 February 2014.
- Attended several OFID sessions and workshops: Different dates.
- Reviewer of several scientific papers in journals and conferences and a reviewer of research proposals.
- Chair/Member of research thesis supervisory committees.
- Head/member of the structures focus group
  - Discussing course distribution for every semester and submit recommendations to the Head of the Department.
  - Discussing issues related to the Structural Engineering specialty and those related to teaching courses or lab research facilities.
  - Reviewing set of Exit Exam questions.
- Attended local conferences in Qatar.

### d. At the United Arab Emirates University

Dr. Ebead:

- was the head of the Departmental Curriculum committee of the Civil and Environmental Engineering Department at the UAEU.
- contributed to the completion of ABET Self-Study report and ABET assignments.
- was ASCE Student Practitioner Advisor. This is for the ASCE Chapter in the UAE.
- was responsible for creating an electronic library of all courses given to CE students.
- was a member of the Teaching Development Committee and Curriculum Committee.
- contributed to students' advising and counseling activities.
- was a member of the Structures Group Committee in the CEE Department.
- evaluated several individual research grant proposals in the CEED.
- was a member in the Ad-Hoc Committee for Faculty Evaluation Criteria.
- was a member of the Ad-hoc committee to revise the Graduation Project report kit and grading sheets to enable senior students fully comply with ABET criteria for senior design course.
- was a member of the Faculty of Engineering Curriculum committee at the UAEU.
- was the CEE Department representative to Library Liaisons at the UAEU.
- was on the committee for moving and relocation of services and equipment of the UAEU to the new campus. He also evaluated bidders' reports.