

## **Tamer A. El-Maaddawy, PhD, PEng**

Associate Professor of Structural Engineering  
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### **EDUCATION**

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<b>Ph.D. in Structural Engineering</b>	February 2004
University of Waterloo, Waterloo, Ontario, Canada	
Thesis: Performance of Corrosion-Damaged Reinforced Concrete Beams Repaired with CFRP Laminates	
<b>M.Sc. in Structural Engineering</b>	November 1999
Ain Shams University, Cairo, Egypt	
Thesis: Performance of RC Short Columns under Bi-directional Seismic Input	
<b>B.Sc. with Honors in Civil Engineering</b>	June 1994
Ain Shams University, Cairo, Egypt	

### **PROFESSIONAL EXPERIENCE**

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Director, Civil Engineering Master Program, UAEU, UAE	Sept. 2011 – Current
Associate Professor, Civil & Environmental Engineering, UAEU, UAE	Sept. 2010 – Current
Assistant Professor, Civil & Environmental Engineering, UAEU, UAE	August 2005 – August 2010
Structural Engineer, Halcrow-Yolles, Toronto, Canada	March 2005 – June 2005
Post-doctoral Fellow, Civil Engineering, University of Waterloo, Canada	March 2004 – Feb. 2005
Ph.D. Candidate & Teaching Assistant, University of Waterloo, Canada	May 2000 – Feb. 2004
Research Engineer, Housing & Building Research Center, Giza, Egypt	June 1996 – April 2000
Structural Engineer, El-Behairy Consultant Engineers, Giza, Egypt	June 1994 – May 1996

### **PROFESSIONAL MEMBERSHIP & AFFILIATIONS**

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Member, Editorial Board, Journal of Composites for Construction, ASCE	Since 2014
Member, Editorial Board, Advances in Concrete Construction, Techno Press	Since 2013
Associate Editor/Member, Emirates Journal for Engineering Research (EJER)	2006-2012
Member, Editorial Board, International Journal of Structural Civil Engineering Research (IJSCR)	Since 2012
Member, Editorial Board, International Scholarly Research Notices (Subject Area: Materials Science)	Since 2011
Member, Editorial Board, Journal of Civil Engineering and Architecture (JCEA)	Since 2009
Member, Board of Directors, ACI – UAE Chapter	Since 2009
Member, IST Transaction of Civil Engineering & Construction Management	Since 2008
Member, International Institute for FRP in Construction (IIFC)	Since 2008
Associate Member, ACI 440 Committee Fiber Reinforced Polymers	Since 2007
Member, American Concrete Institute (ACI)	Since 2006
Member, UAE-Society of Engineers	Since 2005
Member, Professional Engineers Ontario (PEO)	Since 2005
Member, Canadian Society for Civil Engineering (CSCE)	2004-2006
Member, Egyptian Engineering Syndicate	Since 1994

### **ACADEMIC AWARDS**

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Marquis Who's Who in the World	2009
Best Research Award, UAE University, Al-Ain, UAE	2008
Merit Award for Exceptional Performance at the UAE University, UAE	2007
NSERC Research Award, Ontario, Canada (won but declined)	2005
University of Waterloo Graduate Student Award, Canada	2004
Honorable Presentation Award, 8 <sup>th</sup> ISIS Canada Annual Conference, Canada	2003
Graduate Scholarship (OGS), Ontario, Canada	2003
Distinguished Award for Bridge Design Competition, 7 <sup>th</sup> ISIS Canada Conference, Canada	2002

### RESEARCH GRANTS (LAST 5 YEARS)

Project Title	Role	Fund Source	Amount (Dhs)	Fund Years
Influence of Moist-Curing on Concrete Compressive Strength: Review of International Provisions and Experimental Evidences	PI	Ocean Readymix	15,000	2014
Composite Rebars for Reinforcing Concrete Structures in Regions of Severe Environment	PI	Joint UAEU-SQU	400,000	2013-2016
Strengthening of corrosion-damaged concrete beams with basalt-reinforced mortars	PI (yr. 2)	NRF/UAEU	360,000	2013-2015
Durability and Structural Behavior of Self-Curing Concrete Using Water-Soluble Polymers	Co-PI	NRF/UAEU	450,000	2012-2014
Structural Behavior of Concrete Corbels with Non-Metallic Reinforcement	PI	UAEU	30,000	2012-2013
Flexural Behavior of Externally-Strengthened One-Way RC Slabs Containing Cut-Offs	Co-PI	UAEU	30,000	2012-2013
Near-Surface-Mounted (NSM) Composite System for Strengthening Concrete Structures in UAE Environment	PI (yr. 2)	NRF/UAEU	500,000	2011-2013
Shear Behavior of Ultra-High-Strength Steel Fiber Reinforced Self-Compacting Concrete	Co-PI	UAEU	30,000	2011-2012
Performance Evaluation of Mechanically-Fastened FRP System (MF-FRP) for Structural Strengthening in the Gulf Environment	PI	Emirates Foundation	200,000	2010-2012
Design Life Extension of RC Structures	Co-PI	DM	188,000	2010-2011

### JOURNAL PUBLICATIONS (LAST 3 YEARS)

Google Scholar Citations: <http://scholar.google.ae/citations?user=slQ0HFAAAAAJ&hl=en&oi=ao>

Authors(s)	Paper Title	Journal of Publication	Year
El-Maaddawy, Bouchair, El-Dieb, & Biddah	Mechanically Fastened Composites for Retrofitting Corrosion-Damaged Reinforced Concrete Beams	ASCE Journal of Composites for Construction, 04014053, p. 12	2014
El-Maaddawy	Mechanically Fastened Composites for Retrofitting Corrosion-Damaged Reinforced Concrete Beams	ASCE Journal of Composites for Construction, Vol. 18, No. 2, 04013041, p. 9	2014
El-Maaddawy & Sherif	Response of Concrete Corbels Reinforced with Internal Steel Rebars and External Composite Sheets: Experimental Testing and Finite Element Modeling	ASCE Journal of Composites for Construction, Vol. 18, No. 1, 04013020, p. 11	2014
El-Maaddawy, Nessabi & El-Dieb,	Flexural Response of Corroded Reinforced Concrete Beams Strengthened with Powder-Actuated Fastened Composites	ASCE Journal of Composites for Construction, Vol. 17, No. 6, 04013004, p. 11	2013
El-Maaddawy & Chekfeh	Shear strengthening of T-beams with corroded stirrups using composites	ACI Structural Journal, Vol. 110, No. 5, pp. 779-790	2013
El-Maaddawy & Chekfeh	Retrofitting of severely shear-damaged concrete t-beams using externally bonded composites and mechanical end anchorage	ASCE Journal of Composites for Construction, Vol. 16, No. 6, pp. 693-704	2012
Hawileh, El-Maaddawy & Nazer	Non-linear Finite Element Modeling of Concrete Deep Beams with Openings Strengthened with Externally-Bonded Composites	Materials and Design Vol. 42, pp. 378-387	2012
El-Maaddawy & El-Ariss	Behavior of concrete beams with short shear span and web opening strengthened in shear with CFRP composites	ASCE Journal of Composites for Construction, Vol. 16, No. 1, pp. 47-59	2012
El-Dieb, El-Maaddawy & Mahmoud	Water-Soluble Polymers as Self-Curing Agents in Cement Mixes	Advances in Cement Research, Vol. 24, No. 5, pp. 291-299	2012

### CONFERENCE PUBLICATIONS (LAST 3 YEARS)

Authors(s)	Paper Title	Conference Title	Location & Year
El-Maaddawy & Sherif	Three-Dimensional Finite Element Modeling of Concrete Slabs Reinforced with Partially-Bonded Composite Strips	9 <sup>th</sup> International Conference on Short and Medium Span Bridges	15-18 July 2014 Calgary, Alberta, Canada
El-Dieb, El-Maaddawy, Al-Sallamin, & Mahmoud,	Self-Cured Concrete: Performance Assessment and Material Characterization	Concrete Innovation Conference (CIC 2014)	11-13 June 2014 Norway
El-Maaddawy, Bouchair, El-Dieb, & Biddah	Residual Strength of Aging Concrete T-Girders Strengthened with Near-Surface-Mounted Composite System	1 <sup>st</sup> International Conference on Ageing of Materials & Structures (AMS'14)	26 – 28 May 2014, Delft, Netherlands
El-Maaddawy & Sherif	Finite Element Analysis of Reinforced Concrete Corbels: Parametric Study and Comparison with STM Predictions	1 <sup>st</sup> International Conference on Infrastructure Management, Assessment and Rehabilitation Techniques (ICIMART'14)	4-6 March 2014, Sharjah, UAE
El-Maaddawy & Chekfeh	Retrofitting of Concrete T-Girders Pre-Damaged in Shear with CFRP Composites and Mechanical End Anchorage	11 <sup>th</sup> International Symposium on Fiber Reinforced Polymer for Reinforced Concrete Structures (FRPRCS-11)	26-28 June 2013, Guimarães, Portugal
El-Maaddawy, Nessabi, & El-Dieb,	Performance of RC Beams Strengthened With Mechanically-Fastened FRP System under Corrosion Environment	1 <sup>st</sup> Australasia and South-East Asia Structural Engineering and Construction Conference (ASEA-SEC-1)	28 Nov. – 2 Dec. 2012, Perth, Australia
El-Maaddawy, Bouchair, Biddah & El-Dieb	Flexural Behavior of Concrete T-girders Strengthened with NSM Composite System	7 <sup>th</sup> Asian Symposium on Polymers in Concrete (ASPIC 2012)	3-5 October 2012, Istanbul, Turkey
El-Maaddawy & Chekfeh	Effectiveness of NSM-GFRP Strengthening to Upgrade Shear Capacity of T-Beams With Corroded Stirrups	6 <sup>th</sup> International Conference on FRP Composites in Civil Engineering (CICE 2012)	13-15 June 2012, Rome, Italy

### MSc THESES SUPERVISION

Student	Degree	Thesis Title	Start Date	Status
Al Khalil, Jwan	M.Sc. (UAEU)	Structural Response of Flexure-Deficient Reinforced Concrete Continuous Slabs Strengthened with Composites	Fall 2012	in progress
Al Shawa, Jaffar	M.Sc. (UAEU)	Flexural Strengthening of One-way Continuous Reinforced Concrete Slabs with Cutoffs in Sagging and Hogging Regions	Fall 2011	in progress
Al Maali, Alaa	M.Sc. (UAEU)	Retrofitting of Shear-deficient Reinforced Concrete T-girders with Composite-based Systems	Spring 2012	Completed Spring 2014
Aboukwiek, Read	MSc (AUS)	Strengthening of Reinforced Concrete Columns subjected to Eccentric Loading with Near Surface Mounted Composite System	Fall 2011	in progress
Karam, Ehab	MSc (AUS)	Retrofitting of Composite Steel-Concrete Beams Pre-damaged in Flexure using Fiber Reinforced Polymers	Fall 2011	in progress
Bouchair, Anas	M.Sc. (UAEU)	Performance of RC T-Beams Strengthened with NSM Composites System under Accelerated Corrosion	Fall 2010	Completed Spring 2014
Nessabi, Amna	M.Sc. (UAEU)	Performance of RC Beams Strengthened with Mechanically-Fastened Composite System under Corrosive Environment	Spring 2010	Completed Spring 2013
Chekfeh, Yousef	M.Sc. (UAEU)	Strengthening of Reinforced Concrete Beams Pre-damaged in Shear	Fall 2008	Completed Fall 2011
El-Sayed, Mohamed G.	M.Sc. (UAEU)	Performance of Reinforced Concrete Columns Strengthened with FRP under Various Loading Conditions	Fall 2007	Completed Fall 2009

### CONSULTANCY WORK IN UAE (LAST 5 YEARS)

<b>Project Title</b>	<b>Client</b>	<b>Completion Date</b>
Structural Condition Assessment of Al Joori Kindergarten in Al Ain	ADEC	March 2014
Assessment of Concrete Structures inside the Police College Abu Dhabi	Secure Engineering	June 2012
Investigation on Water Leakage in 3 <sup>rd</sup> Basement Ritz Carl Hotel Project – DIFC – Dubai	Bouygues – Target JV	May 2012
Condition Assessment of Main Platform of Field of Graduation Police Academy – Abu Dhabi	Secure Construction	January 2012
Inspection and Assessment of Buildings and Villas in Abu Dhabi	SCMAF – Abu Dhabi	October 2011
Supervision of Strengthening of Ground Floor Slab of Residential Building in Jumeirah Village – Dubai	Al-Haddad Cladding & Painting Works	July 2011
Assessment of the Ground Floor Slab of Al Rayyana Project in Abu Dhabi	Pivot Engineering	June 2011
Design Life Extension of RC Structures	Dubai Municipality	March 2011
Repair and Strengthening of Ground Floor Slab of Residential Building in Jumeirah Village – Dubai	Al-Haddad Cladding & Painting Works	January 2011
Design of the Raft Foundation of Al-Khabisy Building in Al-Ain (Plot 07-05-007-13)	Wadi Bena Contracting EST.	May 2010
Condition Assessment and Reporting of a Private Villa in Al Hili – Al Ain	Fort General Contracting Company L.L.C.	February 2010
Collapse of a Nine-story Building in Abu-hail Street, Daira-Dubai	Emirates House Engineering Consultants	January 2010
Mechanical Properties Evaluation and Reporting of HK Anchor Ties for Insulated Concrete Wall Panel System	Dubai Central Laboratory & ISOFOAM Al-Khorafy	December 2009
Collapse of the RC Boundary of the Dubai National School	Dubai National School	October 2009
Structural Inspection of the 5 Main Buildings at Maqam I Hostel, Al-Ain	Campus Development Dept. - UAEU	October 2009
Condition Assessment and Inspection of Abu Dhabi Police Officers Club	Abu Dhabi Police GHQ, Ministry of Interior	May 2009
Condition Assessment of Sheikh Hamdan Ben Zayed Mosque in Al-Ain	MUSANDA / Al-Ain Municipality	April 2009
Visual Inspection and Reporting of a Sports' Hall of a Military Site in Al-Ain	Al Fara'a Contracting Company	January 2009
Preliminary Assessment of a Strengthening System for Al-Bustan Mall in Riyadh, Kingdom of Saudi Arabia	BULLIVANT ARABIA LTD	August 2008
Monitoring of Tensile Tests Performed on ComBar GFRP Bars in Qatar	SCHOECK GmbH, Germany	June 2008
Review of Structural Design and Tender Documents of the IPIC Headquarters in Abu Dhabi	TASAMEEM Project Management L.L.C.	January 2008
Technical Review and Reporting of the Structural Tender Documents of the Labor Residence in Abu Dhabi	TASAMEEM Project Management L.L.C.	December 2007
Condition Assessment and Structural Inspection of Al Selaimy Buildings in Al-Ain	Abu Dhabi Police GHQ, Ministry of Interior	December 2007
Condition Assessment of Al-Ruwais Police Station in Al-Ruwais	Abu Dhabi Police GHQ, Ministry of Interior,	May 2007