

## Curriculum Vitae



**Alaa Mahmoud Morsy, B.Sc, M.Sc, Ph.D**

Vice Dean, *Manager of Education & Training Department*, Port Training Institute  
Associate Professor of Structural Engineering

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### **ACADEMIC CAREER SUMMARY**

***(March 2015 – Date)***

Vice Dean of Port Training Institute, AASTMT

***(July 2015 – Date)***

Education & Training Manager, Port Training Institute, AASTMT

***(January 2014 – Date)***

Associate Professor, Construction and Building department, College of Engineering and Technology AASTMT

***(June 2013 – July2015)***

Head of Marketing Department, Port Training Institute, AASTMT

***(Sept. 2012 – July2015)***

Head of Research and Development Department, Port Training Institute, AASTMT

***(January 2010 – Date)***

Assistant Professor, Construction and Building department, College of Engineering and Technology, AASTMT

***(September 2005 – November 2009)***

\*Assistant Lecturer, Construction and Building department, College of Engineering and Technology, AASTMT

\*Ph.D. Student - Structural engineering department- Faculty of engineering-Alexandria University

The title of the thesis is "**THERMAL PERFORMANCE OF RC COLUMNS STRENGTHENED WITH CFRP AT ELEVATED TEMPERATURE**"

***(November 2000 – November 2004)***

\*Graduated Teaching Assistant, Construction and Building department, College of Engineering and Technology, AASTMT

M.Sc. Student - Structural engineering department- Faculty of engineering-Alexandria University

The title of the thesis is "**PERFORMANCE OF CONCRETE COLUMNS STRENGTHENED WITH CARBON FIBER REINFORCED POLYMER**"

***(September 1995 – June 2000)***

B.Sc. in Civil Engineering - Faculty of engineering- Alexandria University

**Grade:** Very Good with Honors

**Graduation Project:** Excellent “Contract & Specification & Project Management & Reinforced Concrete Design”

*(September 1995 – June 2000)*

Graduation from English Boy's School (E.B.S.) Alexandria



### **PROFESSIONAL APPOINTMENTS:**

*(2014 – Date)*

External Reviewer for Structural Engineering Department- College of Engineering - Tanta University

*(2011 – Date)*

Member of the Peer Reviewer Committee of International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development

*(IJCSEIERD)*

*(2011 – Date)*

Member of the Peer Reviewer Committee of Journal of Civil, Structural, Environmental, Water resources and Infrastructure Engineering Research (JCSEWIER)

*(2009 – 2010)*

Member in College of Engineering Strategic Plan 2010-2015 committee- AASTMT

*(2011 – 2012)*

Chair Committee of British Institute accreditation– Construction and Building department- College of Engineering - AASTMT

*(2011 – Date)*

Member of International Association for Bridge and Structural Engineers IABSE

*(2010 – Date)*

Member of the Peer Reviewer Committee of Journal of Civil Engineering and Architecture “David Publishing Company” Illinois, U.S.A

*(2010 – 2013)*

Chair Committee of National Authority of Quality Assurance and Accreditation of Education (NAQAAE) – College of Engineering - AASTMT

*(2009 – 2011)*

Chair Committee of American Board of Engineering and Technology (ABET) accreditation– Construction and Building department- College of Engineering - AASTMT

*(2009 – Date)*

Consultant Engineer of R.C. Structures Design

*(2008 – Date)*

Member Egyptian society of Engineers (ESE)



### **INDUSTRY AND COMMUNITY SERVICES**

*(May 2012 – Date)*

Board Member “by election” “General Secretary” for Arab Academy Housing and Building Association

*(May2013 – Date)*

Housing and Building Consultant for Alexandria Governor – Head; Repairing and Failed Structures committee (August 2013)

*(May2010 – Date)*

Consultant for the paving and flooring Alexandria Government roads and highways (Quality control and Quality Assurance for Concrete tests, pavement, soil tests, and Cement tiled tests ) through the Consultant Engineering Center for Faculty of Engineering – AASTM

*(May2010 – Sept.2012)*

Manager for Reinforced Concrete Structures Laboratory – College of Engineering - AASTMT (May. 2010)

*(Dec.2009 – Date)*

**\*MANAGER AND CEO OF ALEXANDRIA BUREAU FOR ENGINEERING CONSULTATION (AMA) (DR.ALA MORSY )**

- **Design of Reinforced Concrete & Metallic Structures for many projects Supervising on repair and strengthening projects**
- **Supervising on Construction Reinforced Concrete & Metallic Structures projects as the following:**
  - R.C. residential buildings*
  - R.C. Mall " hanimex fifth group Nasr City"*
  - Storage Area for El-Nagger factory " frames steel structure in burg el Arab "*
  - Euro-Polymer factory for bituminous manufacturing " steel structure in El Amria, Alexandria "*
  - El Awaid School in Alexandria*
  - Sanitarium in Libya contain " R.C building, swimming pools, water tank"*
  - Ganatty Resort " Hotel + Mall" Tall el eass El Allamen*
  - 2 Residential building in GADAH, Arab Kingdom of SAUDIA" consist of bedroom +ground +mezanane+22 repeated floor"*
  - Residential building in Alexandria – Wengat*
  - Villa in King- Marouit*
  - Eastern company for tobacco "industrial building"*
  - Residential Building in WENGAT – Alexandria*
  - Residential Building in hagar-elnawatia – Alexandria*
  - El Naggat Mall and Sky Light in down town Alexandria*
  - Elmayzona industrial and commercial district (100,000 m2) in Oman*
- **Preparing repair and strengthening reports for SIKA co. for chemical engineering materials**
- **Steel Workshop drawing using TEKLA for steel manufacturing company**

- Design and Execution Supervisor on constructing (Alexandria Commercial Market – West Alexandria – El Saa Square – Alexandria – on 20,000 m2 ) Hafr ElBaten Mall – KSA- 100,000 m2
- Mabarar El Asafra Hospital – Al Ibrahimia – Alex. (14 floor- 1000 m2)
- **MAIN CONSULTANT FOR ENGINEERING PETROLEUM SERVICES “ALNAFT”**
  - Design the basic engineering and details engineering for Oil and Gas Factory in Alam- Shawish, Western Desert
- **MAIN CONSULTANT FOR SIKA COMPANY FOR CONSTRUCTION CHEMICALS IN FIELD OF TESTING MATERIAL AND REPAIR**
- **MAIN CONSULTANT FOR EL LUTUS GROUP FOR CONSTRUCTION**

## **ACADEMIC EXPERIENCE**

*(Dec.2009 – Date)*

Lecturer for **Sap 2000 – AutoCAD- ANSYS** in the following centers:

- 1- Arab Academy for science & technology, Alexandria, Egypt
- 2- AASTMT Alumni
- 3- YAT education Center
- 4- Development society center (Alexandria University)
- 5- Wide horizon center for education and IT
- 6- American University "AUC"

*(Dec.2009 – Date)*

Instructor for many seminars concerning new techniques in repair and strengthening- Faculty of Engineering – Alexandria University and Egyptian Engineering Syndicate

*(Dec.2009 – Date)*

Teach many Training Programs for civil engineers regarding “repair and strengthening for Reinforced concrete structures “and “Concrete Durability in marine environment”

## **Academic Fields of Interest:**

1. Reinforced concrete structures and Testing of Material
2. Repair and strengthening of R.C. structures
3. Use of Fiber Reinforced Polymers (FRP)in Repair and strengthening of structural elements (beams , columns, slabs)
4. Effect of Fire and elevated temperature on structures
5. Effect of fire insulating material on fire endurance of structures
6. Finite Elements Modeling (F.E.M) for R.C. structures
7. Use of Self Compacting Concrete

## **Computer Skills:**

### **1 -Finite Element Programs**

- a) Ansys 5.6.2
- b) Cosmos\m 2.6
- c) Sap2000
- d) Staad

### **2-Graphical Programs**

- a) AutoCAD
- b) Harvard Graphics
- c) Primavera

### **3-Programming with FORTRAN**

### **4- Programming with visual basic v(6.0)**

### Administrative Works at College of Engineering & Technology

#### **RESPONSIBLE FOR THE FOLLOWING TASKS:**

Committee for preparing the Accreditation Board for Engineering and Technology "ABET" requirement and documentation

Committee for preparing the "NAQAAE" requirement and documentation

Quality Assurance Committee for preparing the "British Institutions' Accreditation" requirement and documentation

Construction and Building Student Council

Final Exam Committee "CONTROL"

Academic advising Committee

ISO management system Committee

Preparing and scheduling the lectures and exams time tables. Preparing sheets, Quizzes, exams, and laboratory experiments.

### Administrative Works at Port Training Institute

#### **RESPONSIBLE FOR THE FOLLOWING TASKS:**

Activating internally reviewing for all PTI programs

Mapping all PTI courses to match with the knowledge and skills according to PDP modules

Help in conference organization and KSA workshop include keynote speakers, paper internal and external review , etc

Activating PTI partnership with international organizations e.g APEC , ILO , INPLAN , etc

Manage and organize the communication with ILO

Participate in technical offers submitted to external organization deals with training

Searching for Grants and funds from external donors , institutions, organizations

Organize the maritime courses according to STCW to match with ISO standards (Course file summary and session plan)

Design and implement new marketing plan for institute include vocational courses for graduated youth and carrier deviation and external training programs.

### Courses Taught To Civil Engineering Undergraduates:

#### **1- Reinforced Concrete Structures (I)**

a) *Fundamentals of R.C. design.*

b) *Analysis & Design of*

R.C. sections using working design method & limit state design method.

R.C. Beams, Solid slabs & Columns.

## **2- Reinforced Concrete Structures (II)**

### a) *Analysis & Design*

R.C. Hollow Block slabs, Waffle Slabs, Flat slabs & Panelled Beams. b)  
*Analysis & Design of Halls*  
Frames, Vierndeels, Arched slabs, Trusses & Arched girders.

## **3- Reinforced Concrete Structures (III)**

- a) Design of R.C. Tanks (Rectangular and Circular).
- b) Prestressed Concrete.

## **4- Theory of Structures (I)**

### a) *Analysis of determinate structures*

Beams, Frames, trusses, Arches, Influence line

## **5- Theory of Structures (II)**

### a) *Analysis of Indeterminate structures*

Virtual work method, Stiffness method & Moment distribution method

## **6- Structural Dynamics**

## **7- Construction Material:**

- a) The ASTM test on aggregate, cement, sand
- b) The design mix by using the ASTM code

## **8 – Strength of Material**

- a) Properties of area,
- b) Normal, shear, bending stress

## **9 - Foundations**

### A) *Analysis & Design of*

Isolated footings, combined footings, Strap, Strip, Piles & Raft foundations

## **10 – Testing of material**

Properties of engineering material and its test (Tension – Compression – Shear – Torsion – Hardness – impact – fatigue – creep

## **11- Quantity Surveying and cost estimation and specification**

## **12-Finite element Programs and software with cooperate with CEI England**



### **[Supervision on Graduation Projects](#)**

Sep 2000 – till now as supervisor of Structural Reinforced Concrete and Testing of Material Projects for seniors' undergraduates.



### **[Supervision on M.Sc. Thesis](#)**

- 1- A Comparative Study for Shear Strengthening Methods of Reinforced Concrete Beams Using FRP.
- 2- Repair of pre-loaded Reinforced Concrete Beams Using FRP.
- 3- Building Method using Tilt- up Technique for Single Floor.



### **[Computer Skills Taught To postgraduates](#)**

## Software

Sap2000  
Auto cad  
Stad pro 2003  
Ansys



## Part of the Publications

- 1- **“Behavior of Axially Loaded Column Strengthened with carbon fiber reinforced polymers”** (*The Fifth Alexandria International Conference for Structural and Geotechnical Engineering - Alexandria University*)
- 2- **“Analytical Model For Axially Loaded Rectangular reinforced concrete Columns confined by Fiber Reinforced Polymer Jackets”** (*The Fourth Middle East Symposium on Structural Composite for Infrastructure Application – Ein-Shams University* )
- 3- **Structural Performance for R.C. Columns Confined by CFRP under Elevated Temperature**" *13th International Conference on Structural and Geotechnical Engineering- Cairo – Egypt 27-29 December 2009*
- 4- **"Thermal Endurance of Insulated R.C. columns Strengthened With CFRP"**  
*FIBER REINFORCED POLYMER (FRP) COMPOSITES FOR INFRASTRUCTURE APPLICATIONS, Focusing on Innovation, Technology Implementation and Sustainability, San Francisco, California- USA- Nov. 2009*
- 5- **" Modeling the thermal performance of Insulated FRP strengthened RC. Columns under elevated temperature"** *FIBER REINFORCED POLYMER (FRP) COMPOSITES FOR INFRASTRUCTURE APPLICATIONS, Focusing on Innovation, Technology Implementation and Sustainability, San Francisco, California- USA – Nov. 2009*
- 6- **Effect of Elevated temperature on the structural performance of R.C. columns confined by CFRP"** *Asia – Pacific Conference on FRP in Structures –Soul – South Korea-Dec. 2009*
- 7- **“EFFECT OF DIFFERENT RETEMPERING TECHNIQUES ON THE PERFORMANCE OF SELF CONSOLIDATING CONCRETE”** (*The Fifth Alexandria International Conference for Structural and Geo-technical Engineering - Alexandria University*) Dec. 2010
- 8- **“A COMPARATIVE STUDY FOR SHEAR STRENGTHENING TECHNIQUES OF REINFORCED CONCRETE BEAMS USING FRP”** *4th International Conference on Concrete Repair, with cooperation by Technical university Dresden , Germany. Sep. 2011*
- 9- **"BONDING TECHNIQUES FOR FLEXURAL STRENGTHNING OF R.C. BEAMS USING CFRP LAMINATES"** *14th International Conference structural Faults and Repair, Edinburgh, Scotland, UK, July. 2012*

**10- BONDING TECHNIQUES FOR FLEXURAL STRENGTHENING OF R.C. BEAMS USING CFRP LAMINATES**” Ein Shams Engineering Journal – Science Direct-Elsevier Publisher – 2012

**11- "FRP REPAIR FOR RC BEAMS PRE-DAMAGED IN SHEAR"**14th International Conference structural Faults and Repair, Edinburgh, Scotland, UK, July. 2012

**12- REPAIR OF PRE-LOADED R.C. COLUMNS USING EXTERNAL CFRP SHEETS & EMBEDDED LONGITUDINAL STEEL REINFORCEMENT"** 14th International Conference structural Faults and Repair, Edinburgh, Scotland, UK, July. 2012

**13- EFFECT OF TIE CONFIGURATIONS ON THE PERFORMANCES OF R.C. COLUMNS UNDER LATERAL AND VERTICAL LOADS** “International Review of Civil Engineering (I.R.E.C.E.), Vol. 4 n. 1, Jan 2013

**14- DECREASING R.C. BEAM WEIGHT WHILE INCREASING ITS ULTIMATE CARRYING CAPACITY** “International Journal of Civil Engineering Research”. ISSN 2278-3652 Volume 4, Number 1 (2013), pp. 55-67 © Research India Publications <http://www.ripublication.com/ijcer.htm>

**15- FLEXURAL STRENGTHENING OF RC BEAMS USING NEAR SURFACE-MOUNTED CFRP LAMINATES UNDER SUSTAINED LOAD** “International Conference on Advances in Structural and Geotechnical Engineering” ICASGE’15, Hurghada, - Egypt- 2014

**16- FLEXURAL STRENGTHENING FOR R.C. BEAMS USING CFRP SHEETS WITH DIFFERENT BONDING SCHEMES** “International Conference on Advances in Structural and Geotechnical Engineering” ICASGE’15, Hurghada, - Egypt- 2014

**17- FLEXURAL REPAIR/STRENGTHENING OF PRE-DAMAGED R.C.BEAMS USING EMBEDDED CFRP RODS**” Alexandria Engineering Journal – Science Direct-Elsevier Publisher - 2015

**18- PARAMETRIC STUDY FOR RC BEAMS STRENGTHENED IN SHEAR WITH FRP USING NONLINEAR FINITE ELEMENT MODELIN**” The 9<sup>th</sup> International Concrete Conference 2016, Dundee – Scotland



#### **CONFERENCE PARTICIPATION:**

1. The Seventh Alexandria International Conference on Structural and Geotechnical Engineering, AICSGE7, December 20 22, 2003
2. Forth Middle East Symposium On Structural Composites for Infrastructure Applications, Alexandria, Egypt, May 20-23, 2005



3. Fiber Reinforced Polymer (FRP) Composites Conference for Infrastructure Application , University of Pacific , School of Engineering and Computer Science San Francisco, California, Nov. 4 – 6, 2009
4. The Second Official International Conference of International Institute for FRP in construction for Asia-Pacific Region – Korea-2009
5. The Seventh Alexandria International Conference on Structural and Geotechnical Engineering, AICSGE7, December 27-29, 2010
6. Keynote Speaker ,4th International Conference Concrete Solutions, Dresden, Germany from 25-29 September 2011
7. Keynote Speaker , and Session Chair, Structural Faults & Repair-2012, 14th International Conference, 3<sup>rd</sup>-5<sup>th</sup> July 2012, Edinburgh, Scotland
8. Keynote Speaker , IAPH Africa Europe Regional Meeting, NH Barbizon Palace Hotel, Amsterdam, the Netherlands, Nov. 2013
9. Third Annual river transport international forum” river transport present and future “ Aswan , December 2014
10. Keynote Speaker , Arabic Maritime Forum- Omman – Jordan – feb.2015
11. Water Transport in Arab Region- Egyptian Engineering Syndicate and Arab Engineering Union- Sep.2015
12. Keynote Speaker , 41st Annual International Conference of the Association of Egyptian American Scholars - (Comprehensive development of the Sinai Peninsula, (Futuristic, sustainable and comprehensive strategy from Egyptian scientists at home and abroad in collaboration with local communities- Dec 2014
13. Keynote Speaker , Workshop on “electronic systems development, Logistic and maritime training- Omman – Jordan – Oct.2015



### **CONFERENCE ORGANIZING:**

1. Organizing Committee Member, International Conference on Maritime Transport & Logistics MARLOG 5 " Toward Smart Ports, the Future We Want", Arab Academy for Science and Technology and Maritime Transport, March 2016, Alexandria, Egypt.
2. Organizing Committee Member, International Conference on Maritime Transport & Logistics MARLOG 4 "Sustainable Development of Mega Projects", Arab Academy for Science and Technology and Maritime Transport, March 2015, Alexandria, Egypt
3. Organizing Committee Member, International Conference on Maritime Transport & Logistics MARLOG 3 "Logistics Industry in the Arab World: Threats and Opportunities", Arab Academy for Science and Technology and Maritime Transport, March 2014, Alexandria, Egypt.

4. Organizing Committee Member, Workshop on the Role of Logistic in Supporting the Competitiveness of the Transport Sector, Arab Academy for Science and Technology and Maritime Transport in cooperation with Saudi Ports Authority, September 2013, Al Jubail, Kingdom of Saudi Arabia.
5. Organizing Committee Member, International Conference on Maritime Transport & Logistics MARLOG 2 "Sustainable Development of Suez Canal Region", Arab Academy for Science and Technology and Maritime Transport, March 2013, Alexandria, Egypt.
6. Organizing Committee Head, Workshop on “ Administrative leaders in maritime transport sector about the mega projects for the development of the Suez Canal axis and its expected effects”, Port Training Institute, January 2015, Alexandria – Egypt
7. Keynote Speaker, Workshop on “ Infrastructure management and infrastructures seaports maintenance operations”, Port Academy for Maritime and Technical Studies, August 2014, El Damam – KSA
8. Organizing Committee Head, Workshop on “The role of ports in society to support and facilitate inter-Arab trade”, Port Training Institute, October 2015, Alexandria – Egypt
9. Organizing Committee Member, Workshop on the Quality in Port, Arab Academy for Science and Technology and Maritime Transport in cooperation with Saudi Ports Authority, Feb. 2016, Geda, Kingdom of Saudi Arabia.

### **SOCIAL AND COMMUNITY SERVICE ACTIVITES**

- 1- Board Member “by election” “ General Secretary” for Arab Academy Housing and Building Association
- 2- Board Member “honorary Secretary” International Rotary (Alexandria Marine– District 2450)

*Thanks*

*Alaa Morsy*