

Curriculum Vitae

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➤ EDUCATIONAL and PROFESSIONAL QUALIFICATIONS

- **Ph.D.** in Structural Engineering (Soil Mechanics and Foundation Engineering).
- **M.Sc.** in Structural Engineering (Soil Mechanics and Foundation Engineering).
- **B.Sc.** in Civil Engineering, Faculty of Engineering, Alexandria University.
- Member of the Egyptian Syndicate of Engineering.

➤ ACADEMIC ACTIVITIES

• (Jan. 2007-to-date)

College of Engineering and Technology, Arab Academy for Science and Technology and Maritime Transport, Alexandria: Lecturer / Assistant Professor of Soil Mechanics and Foundation Engineering.

• (Jan. 2000-to-Dec.2006)

Structural Engineering Dept., Faculty of Engineering, Alexandria University: Delegated Lecturer of Soil Mechanics and Foundation Engineering.

• Academic Fields of Interest:

- 1- Soil mechanics and design of foundations.
- 2- Repair and underpinning of foundations.
- 3- Soil-foundation interaction.
- 4- Collapsible soils.

• Courses Taught to Undergraduate Students

- 1- Design and Construction of Earth Structures and Foundations.
- 2- Soil Mechanics.
- 3- Repair of Structures.
- 4- Engineering Geology.

• Supervision on Graduation Projects

Supervisor of Geotechnical Engineering Graduation Project for senior undergraduate students (**more than 60 graduation project groups**).

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- **Courses Taught to Postgraduate Students**

- 1- Advanced Geotechnical Engineering.
- 2- Soil Stabilization.
- 3- Piling Engineering.

- **Supervision on Master of Science Thesis and Ph.D. Students**

- 1- Supervisor of Geotechnical Engineering M.Sc. postgraduate students (**24 M.Sc. theses have been finished and discussed, and other 7 are currently under supervision**).
- 2- Supervisor of Geotechnical Engineering **Ph.D. postgraduate students**.

The titles of the finished M.Sc. theses are:

- 1- Investigation of Construction Projects Delay Analysis in Egypt (2012).
- 2- Minimization of Construction Costs for Pile Foundations Using Artificial Neural Networks (2013).
- 3- Selection of Optimal Parameters of Discrete Contiguous Pile Wall (2014).
- 4- Treatment of Collapsible Soil by Mixing with Marble Powder (2014).
- 5- The Impact of Using Tubular Concrete-Filled FRP Pile Foundations on the Seismic Response of Bridges (2015).
- 6- Treatment of Collapsible Soil by Mixing with Iron Powder (2016).
- 7- Load Sharing of Piled Raft Foundation in Clay Subjected to Vertical Loads (2016).
- 8- Improving of Collapsible Soil by Mixing with Graded Sand & Compaction (2016).
- 9- Cost Optimization of Replacement Layer beneath Shallow Footings Resting on Medium Clay (2016).
- 10- Effective Project Control Practices (2016).
- 11- An Innovative Technique for Soil Improvement Under Large Wind Mills Units (2017).
- 12- Mapping Hazard Potential and Expected Earthquake Intensity on Bridge Structures Lying Within Alexandria Governorate (2017).
- 13- Numerical Simulation of Single Pile Capacity Using PLAXIS software (2017).
- 14- Improvement of Collapsible Soil Using Geosynthetic Materials (2017).
- 15- Consolidation Settlement in Clay Layer Beneath a Group of Shallow Footings (2017).
- 16- Cost Optimization of Replacement Layer Thickness Beneath Shallow Footing Resting on Collapsible Soil (2017).
- 17- LEAN Construction (2017).
- 18- Load Sharing of Pile Cap Foundation Embedded in Homogeneous and Stratified Soil Subjected to Vertical Loads (2018).
- 19- Effect of Using Swelling Concrete in Piles on The Capacity of Bored Piles (2018).
- 20- Estimation of Piles Lateral Capacity from Standard PDA Test Results (2018).
- 21- The Impact of Geotechnical Report on Unforeseen Ground Conditions Responsibility in Egypt (2018).
- 22- Potential Risks of Using Disconnected Piled Raft Foundation in Active Seismic Zones (2019).
- 23- The Effect of Applied Stress and Degree of Saturation of Soil on Collapse Settlement (2019).
- 24- Improvement of Soft / Medium Clay Using Unconnected Stone Columns (2019).

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- **Published Papers**

Eighteen papers have already published in either international conferences or international journals.

تاريخ النشر	مكان النشر	اسم البحث	م.م
Jan. 2001	9 th International Conference on Computer Methods and Advances in Geomechanics, Arizona – USA.	“ Study on the Osterberg Cell Procedure for Pile Testing “	1
April 2001	5 th International Conference on Deep Foundation Practice, Singapore.	“ Testing of Piles in Laboratory by Osterberg Cell “	2
April 2006	4 th International Conference on Unsaturated Soils, Arizona – USA.	“ Study of the Infiltration of Water Through Collapsible Soil “	3
Dec. 2012	9 th International Conference Role of Engineering Towards A better Environment “RETBE’12”, Alexandria - Egypt.	“The Appropriate Pile Diameter and Penetration Distance Through Bearing Layer Corresponding to Minimum Cost of Piled Foundations “	4
April 2014	8 th Alexandria International Conference on Structural and Geotechnical Engineering (AICSGE8), Alexandria – Egypt.	“ Treatment of Collapsible Soils by Mixing with Marble Powder “	5
June 2014	9 th International Conference on Structural Dynamics (EURODYN.2014), Porto – Portugal.	“ Studying the Impact of Using Tubular Concrete – Filled FRP Pile Foundations on Seismic Response of Structures “	6

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April 2015	International Conference on Advances in Structural and Geotechnical Engineering (ICASGE'15), Hurghada – Egypt.	“ Study on Common Methods for Calculating the Pile Group Stiffness “	7
May 2015	5 th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering , Crete – Greece. (COMPDYN 2015)	“ Mapping Hazard Potentials in Seismic Zones Based on Geotechnical Data for Designing Transportation Networks Infrastructure “	8
Oct. 2015	International Journal of Scientific & Engineering Research, Volume 6, Issue 10, October-2015	“ Load Sharing of Piled-Raft Foundations Embedded in Soft to Medium Clay Subjected to Vertical Loads “	9
Oct. 2016	2016 EMI International Conference, Metz – France.	“Improving Compressible Soil Response Under Vibrations from Large Wind Mills Rotaries “	10
Dec. 2016	9 th Alexandria International Conference on Structural and Geotechnical Engineering (AICSGE9), Alexandria – Egypt.	“ Numerical Simulation of Single Pile Capacity Using Plaxis “	11
March 2017	International Conference on Advances in Structural and Geotechnical Engineering (ICASGE'17), Hurghada – Egypt.	“ Improvement of Collapsible Soil Using Geosynthetic Materials “	12

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June 2018	16 th European Conference on Earthquake Engineering, Thessaloniki – Greece.	“ Estimation of Piles Lateral Capacity from standard PDA and CAPWAP Test Results “	13
Dec. 2018	Alexandria Engineering Journal (2018) 57, pp. 3737-3745.	“ Treatment of Collapsible Soils by Mixing with Iron Powder “	14
Dec. 2018	GEOMEAST International Conference (GEOMEAST 2018), Cairo – Egypt.	“ A Proposed Approach for Calculating Collapse Settlement “	15
March 2019	International Conference on Advances in Structural and Geotechnical Engineering (ICASGE’19), Hurghada – Egypt.	“ Study on Using Disconnected Piled Raft Foundations in Active Seismic Zones “	16
March 2019	International Conference on Advances in Structural and Geotechnical Engineering (ICASGE’19), Hurghada – Egypt.	“ A Numerical Study on the Factors Affecting the Capacity of Stone Columns”	17
Oct. 2019	Al-Azhar University Civil Engineering Research Magazine (CERM) Vol. (41) No. (4), pp. 326 - 335 October, 2019	“ Effect of Using Swelling Concrete in Piles on the Bored Piles Capacity “	18

➤ PROFESSIONAL EXPERIENCE

More than thirty years practical experience in civil engineering and geotechnical projects.

- Jan. 2007-to-date, **Altareq office for Engineering Consultations.**
- Jan. 2005-to- date, **Horema Lab. for soil investigations & Q.C.**, Technical Support with the following duties:

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- Reviewing and reporting laboratory tests and field tests of soil mechanics, concrete, roads and asphalt projects according to the Egyptian Standards (ES), American Society for Testing Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO) and British Standards (BSI).
- Reviewing and reporting soil reports.
- *April 1987-2004, Quortoba for Housing and Rebuilding Co.*, Chief Engineer with the following duties:
 - Revision of civil and architectural drawings.
 - Preparing design drawings.
 - Preparing bending lists.
 - Controlling of all civil and finishing works for residential buildings.
 - Preparing weekly site report.
 - Repair of cracking buildings.
- *July 1984- to- March 1987, Engineering Consulting Office (Dr. Fathi Abdrabbo)*, Design Engineer (part time),
 - Design of different types of shallow and deep foundations.
 - Design of residential and industrial buildings.

Some Projects (in brief):

- Reviewing the calculations of the geotechnical works for Rehabilitation of the Container Terminal Quay Wall at Damitta Port.
- Full design of R.C. frames and internal roads of Raas Shoquer Quay.
- Reporting many soil reports for school buildings supervised by the Engineering Authority of the Armed Forces.
- Design and supervising the civil works of “Dream Land Resort” – Alex. – Cairo desert road.
- Soil boring and full soil report for a private factory of textile in Kafr El-Dawar, Egypt (Eng. Salah Abdellatif, Co.,).
- Soil boring and full soil report for a residential complex (Abo-Seleman) Alexandria, Egypt.
- Sixty boreholes in a residential complex (El-Baroon City) Elkatamiah, Cairo, Egypt.
- Alexandria Sewage project and treatment plants.
- Egyptian petrochemicals complex-El Amerya.
- Medfly Rearing Facility.
- Korimat Power Station.
- Wady Kurkur project – Aswan.
- Fayoum – Mani souif power Transmission line.
- Shoes Factory – Ismailia.
- Multi storage Housein – Boustan Garage at Cairo.
- Extension of Gas Station – Abu Gharadig.
- Extension at the Egyptian Refracories Company – Alexandria.
- Pollution Control Project – Alexandria.
- King Marriout Navy Base under supervision of the American Army.
- Aswan soils Project – Aswan.
- Mena (3) Village: Complete Touristique village of several island with falls between them.

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- Moharram Bek Bridge: Extension of Moharram Bek Bridge.
- Beheira School Construction: The Construction of 22 school at Beheira.
- LPG – MPC UNIT: Petroleum Oils Mixing Unit.
- International Terminal Building No. 3 (Cairo International Airport): Construction of a new terminal building with its integrated facilities to accommodate 8.5 million passenger per year.
- New Storage Area for hard Bitumen (Reclaimed from lake Maryout): New storage area, reclaimed from lake Maryout for hard bitumen.
- Alexandria and Matrouh School: Construction of School in both Governorates.
- Matrouh: School Construction: Construction of school in Matrouh.
- Matrouh Main waste water lines: Construction of a new Wastewater network.
- Wahat Governorate School: Construction of new School.
- Matrouh Portable water Station: The construction of ground water tanks.
- Carbon Black Factory: The Construction of a Carbon Black Factory.
- Quortoba residential buildings in Alexandria (Shods, Janklesse, Loran, Boljly, Moharram Bek, Gleem).
- Quortoba residential buildings in Cairo (Maadi, New Maadi)
- Industrial Factory (Alras-Elsoudaa, Alexandria).
- Badr Mosque (Moharram Bek).
- Industrial Factory (New Borg-Elarab City).
- Residential villas in Alexandria (Agami, 6- October, Rashid).

➤ **INDUSTRY and COMMUNITY SERVICES**

- **(October 2010 – Date)**

Alexandria Government 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 College of Engineering and Technology – AASTM.

- **(October 2013 – Date)**

Housing and Building Consultant for Alexandria Government

Head of Repairing and Failed Structures committee (Borg El-Arab City).

➤ **COMPUTER SKILLS**

1 – Microsoft Main Programs (Word – Excel).

2- Finite Element Programs a) Plaxis b) Sap2000