Soil Mechanics & Geotechnical Engineering Laboratory Telephone: +201005117064 Fax: +20237607239

Email: marawan.shahin@f-eng.tanta.edu.eg

# Marawan M. Shahien Professor of Geotechnical Engineering & Foundations Geotechnical Engineering Consultant

**DATE OF BIRTH** June 13, 1966 **PLACE OF BIRTH** Alexandria, Egypt

NATIONALITY Egyptian

MARITAL STATUS Married (2 sons and 1 daughter)

# **EDUCATION**

Ph.D. (Geotechnical Engineering) in 1998 from the University of Illinois at Urbana-Champaign, USA. M.Sc. (Geotechnical Engineering) in 1991 from the University of Illinois at Urbana-Champaign, USA. B.Sc. (Civil Engineering) (**CLASS HONOR**) from Kuwait University, Kuwait.

#### HONORS AND AWARDS:

Norman Medal Award of the American Society of Civil Engineers (ASCE) for authoring a paper judged worthy of special commendation for its merit as a contribution to Eng. Science, 2004. Ralph B. Peck Fellowship for outstanding performance in geotechnical Eng., University of Illinois, 1992.

Stanley D. Wilson Fellowship for outstanding performance in geotech. Eng., University of Illinois, 1991.

#### ACADEMIC APPOINTMENTS

2018- Present	General Coordinator of Special Programs (Credit Hour System) – Faculty of Engineering,
	Tanta University, Tanta, Egypt.
2015- 2018	Coordinator of Construction Engineering Program (Credit Hour System) – Faculty of
	Engineering, <b>Tanta University</b> , Tanta, Egypt.
2014 – Present	Professor of Geotechnical Engineering & Foundations, <b>Tanta University</b> , Tanta, Egypt.
2007-2014:	Associate Professor, <b>Tanta University</b> , Tanta, Egypt.
Summer 2010:	Director of Soil Mechanics & Geotechnical Eng. Laboratory, Tanta University, Egypt
Fall 2007:	Acting Director of Soil Mech. & Geotechnical Eng. Lab., Tanta University, Egypt
Fall 2006:	Visiting professor, University of Illinois at Urbana-Champaign, USA
1999-2007:	Assistant Professor, <b>Tanta University</b> , Tanta, Egypt.
1998-1999:	Postdoctoral Research Associate, Mid America Earthquake Eng. Research Center,
	University of Illinois at Urbana Champaign, USA.
1990-1998:	Teaching/Research Assistant, University of Illinois at Urbana Champaign, USA.
1987-1989:	Laboratory Engineer, Kuwait University, Kuwait

# CONSULTING APPOINTMENTS

2004 – Present	Head of Geotechnical Engineering Department (part time), Hamza Associates
	Consulting office, Egypt.
2001 - 2004	Senior Geotechnical Engineer (part time), <b>Hamza Associates</b> Consulting office, Egypt.

# PROFESSIONAL & ACADEMIC EXPERIENCES

- Secretary General, Organizer, member of International Advisory committee and co-editor of conf. proceedings (5 volumes) of 17<sup>th</sup> ICSMGE, Alexandria (2009)— The first time to host this conference in Africa
- Organizer and co-editor of 3rd African Young Geotechnical Eng. Conference, Cairo, Egypt (2012)
- Secretary General, Organizer of ICASGE15, ICASGE17 & ICASGE19; the first three
  conferences in
- Licensed consultant of Geotechnical Eng. from the Egyptian Syndicate of Engineers since December, 2005.



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- While at Kuwait University, at University of Illinois at Urbana Champaign, Tanta University and at Hamza Associates consulting firm, Dr. Shahien has been involved in major civil engineering projects in North America and the Middle East. The projects cover many areas of geotechnical engineering; Geotechnical Investigation, Ports, Harbors and Waterfront Structures, Ground Improvements, Preservation of Antiquities, Deep Excavation, Slopes, Embankment and Dams Analysis, Deep Foundations, Groundwater Control, Liquefaction Analysis and Settlement Analysis. The clients of the work were local, regional and international. The international clients include but not limited to Bechtel, British Petroleum, TREVI, MENARD, BAUER. USA Corp of Engineers, NGI, Hydro Quebec, DEME, EDRA, ...
- Wide Spectrum of Research Interests in Geotechnical Engineering
- Member of Egyptian Code of Practice Committee Laboratory and Field Testing Committee
- Member of Egyptian Code of Practice Committee Deep Excavation Committee
- Teaching undergraduate and graduate courses in Soil Mechanics, Engineering Geology, Soil
  Improvement, Tunnels and Underground Structures, Earth Structures and Geotechnical Aspects of
  Hydraulic Structures.
- Member of Soil Mechanics and Geotechnical Engineering Laboratory Accreditation team University of Tanta (Accredited)
- Member of Faculty of Engineering Accreditation Team (CIQAP) Tanta University
- Curriculum of Construction Engineering Program Credit Hour System Tanta University
- Soil Mechanics in Engineering Practice by Terzaghi, Peck, and Mesri (3<sup>rd</sup> Edition)

Contributed to checking the manuscript and preparation of problems, reference list, author and subject indices.

- Co-Founder of International Geosynthetics Society- Egypt Chapter
- Technical Review of Papers Submitted for Publication in Conferences and Journals
- Supervisor of about 15 MSc and PhD Thesis
  - Egypt

Tanta University (Many MSc and PhD)
Cairo University(3 MSc and 1 PhD)
Menofeya University (MSc)

- Abroad

Freighurg Geotechnical Institute - PhD (Germany)

• Evaluator and Examiner of 15 MSc and PhD Thesis

- Egypt

Tanta University (Many MSc and PhD)

Cairo University(2 MSc)

Alexandria University (2 MSc)

Mansoura University (4 MSc)

Zagazig University (1 PhD & 2 MSc)

Menofeya University (MSc)

- Abroad

Freighurg Geotechnical Institute- PhD (Germany)

Cape Town University – MSc (South Africa)

· Invited to two Keynote Lectures in Cairo, Egypt

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- Author and Co-Author of 80+ published papers in international conferences and impacted Journals
- Author and Co-Author of 100+ technical reports
- Board Member of the Egyptian Geotechnical Society
- Secretary General, Organizer and co-editor of conference proceedings of International
   Conferences ICASGE'15, ICSGE'17, and ICSGE'19 the series of the International Conference
   on Advances in Structural and Geotechnical Engineering in Hurghada (Structural
   Eng. Department Tanta University) at Hurghada
- International Evaluator for Funded Research Project for Official Governmental Agency in Chile

# CONFERENCES ATTENDANCE AND PARTICIPATION

# INTERNATIONAL CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

- 15th ICSMGE Istanbul (Turkey) 2001
- 16th ICSMGE Osaka (Japan) 2005
- 17th ICSMGE Alexandria (Egypt) 2009 Secretary General (Organizer)
- 18th ICSMGE Paris (France) 2013
- 19th ICSMGE Soul (South Korea) 2017

# REGIONAL AFRICAN CONFERENCES ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

- 13th Marakesh (Morrocco) 2004
- 14th Yauende (Cameroon) 2007
- 16th Tunisia (Tunis) 2015

# OTHER REGIONAL CONFERENCES ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

• European Conference on Soil Mechanics and Geotechnical Engineering – Madrid (Spain) 2007

# INTERNATIONAL CONFERENCES ORGANIZED BY TECHNICAL COMMITTEES OR SUPPORTED BY ISSMGE

- 9th International Conference on Soil Dynamics and Earthquake Eng., Bergen, Norway (1999).
- 10th International Conference on Soil Dynamics and Earthquake Eng., Philadelphia, USA. (2001)
- 4th International Conference on Earthquake Geotechnical Engineering, **Thessaloniki Greece** (2007)
- International geotechnical conference "Development of cities and geotechnical engineering" (Saint Petersburg Russia, 17-19 June 2008). TC-38 Soil Structure Interaction
- CPT'14 International Symposium on Cone Penetration Testing, Las Vegas, USA.(2014)
- 5th International Conference on Geotechnical and Geophysical Site Characterization, ISC'5, 5-9 Sept, Jupiters Gold Coast, **Queensland, Australia** (2016)

# ASCE OR GEO-INSTITUTE CONFERENCES

- Vertical and Horizontal Deformations of Foundations and Embankments Settlement 94, ASCE Conference, College Station, Texas, USA (1994) – Papers Reviewer
- 3rd National Geo-Institute Conference, Geo-Engineering for Underground Facilities, **Urbana-Champaign, IL, USA**, June 1999. **Helped in organization**
- ASCE Geotechnical Congress GEO-Denver, ASCE, Denver, Colorado, August, 2000

# DEEP FOUNDATION INSTITUTE CONFERENCES

- 40th Annual Deep Foundations Institute, DFI2015, October 12-15, **Oakland, California, USA** (2015)
- International Conference on Deep Foundations, Seepage Control and Remediation, 41th Annual Deep Foundations Institute Conference, DFI2016, October 12-15, NewYork, USA (2016)

# OTHER GEOTECHNICAL INTERNATIONAL AND REGIONAL CONFERENCES

- 4th Geotechnical Engineering Conference, Cairo, Egypt (2000).
- 3rd Regional Middle East Conference on Civil Engineering, ASCE-AGS, Cairo 2002 Organizer
- 9th Arab Structural Engineering Conference, Abu Dhabi, UAE. (2003)

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- International Conference on Geotechnical Engineering, Sharjah, UAE. (2004)
- 5th Geotechnical Engineering Conference, Cairo, Egypt (2005).
- 11th International Colloquium on Structural and Geotechnical Engineering, Ain Shams University, Cairo, Egypt (2005)
- 2nd International Conference on Problematic Soils, Malaysia. (2006)
- 6th Alexandria International Conference on Structural and Geotechnical Engineering. (2007)
- World Conference on Earthquake Engineering, China (2008).
- 12th Int. Colloquium on Structural & Geotechnical Eng., Ain Shams University, Cairo, Egypt (2008)
- 3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, **Nicosia**, **North Cypris**. (2012)
- 3rd Young African Geotechnical Engineers Conference, Cairo, Egypt (2012) Organizer
- International Conference on Advances in Structural and Geotechnical Engineering, ICASGE15, Hurghada, Egypt (2015) Secretary General (Organizers) & Papers Reviewers
- 15th Int. Colloquium on Structural and Geotechnical Eng., Ain Shams University, Cairo, Egypt (2015) Papers Reviewers
- 9th Alexandria International Conference on Structural and Geotechnical Engineering. (2016)
- International Conference on Advances in Structural and Geotechnical Engineering, ICASGE17, Hurghada, Egypt (2017) Secretary General (Organizers) & Papers Reviewers
- International Conference on Advances in Structural and Geotechnical Engineering, ICASGE19, Hurghada, Egypt (2019) Secretary General (Organizers) & Papers Reviewers

#### MEMBERSHIP & AFFILIATIONS

- Member of the American Society of Civil Engineers,
- · Board Member of the Egyptian Geotechnical Society,
- Co-Founder of International Geosynthetics Society- Egypt Chapter,
- Egyptian Society of Earthquake Engineering,
- European Society of Earthquake Engineering,
- Geo-Institute (ASCE),
- Deep Foundation Institute, USA,
- International Society for Soil Mechanics and Geotechnical Engineering and
- International Geosynthetics Society.

# TEACHING:

• Tanta University, Egypt

# **Undergraduate Courses**

Engineering Geology (1st year, civil),

Soil Mechanics (1) (2<sup>nd</sup> year, civil),

Soil Mechanics (2) (3<sup>rd</sup> year, civil),

Soil Improvement (3<sup>rd</sup> year, elective civil),

Tunnels and Underground Structures (4th year, elective civil)

**Graduation Project** 

# Post-Graduate Courses

Earth Structures

**Underground Structures** 

Geotechnical Engineering For Hydraulic Structures

# • University of Illinois at Urbana-Champaign, USA

Teaching the laboratory part of CE 383 "Soil Mechanics and Soil Behavior", a course offered for senior level undergraduate and graduate students (1992-1998).

# **RESEARCH:**

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- Settlement of structures on granular soils subjected to seismic loads
- Settlement of granular soil deposits subjected to seismic loads
- Settlement of structures on granular soils subjected to static loads
- Stability of stiff fissured clay and clay shale slopes
- Geotechnical characteristics and compression of Pisa clay
- · Compressibility and consolidation of soils
- Foundations on expansive soils
- Post-densification penetration resistance of clean sands
- Soil improvement by vertical drains
- · Long term consolidation characteristics of dilluvial clay in Osaka Bay, Japan
- Performance of retaining waterfront structures during earthquakes
- · Geotechnical characteristics of Nile Delta Deposits
- Use of Horizontal Penetration Test in characterizing Dry Cemented Sand
- Groundwater Control in Arid Areas
- Compressibility Characteristics of Peats and Organic Soils in Egypt
- Analysis of Dewatering Systems in construction Pit surrounded by Partially Penetrating Cut off walls
- Liquefaction of Granular Soils
- Ground Improvement by Dynamic Compaction and Dynamic Replacement
- Effect of Soil Contamination on Properties and Behavior of Foundations
- · Liquefaction of Calcareous granular material
- Properties of sand and sea shells mixtures
- Improvement of soft ground using Stone Columns
- Earth Pressures on Displacement of different supported walls in deep excavations
- Ground Settlement due to tunneling
- Use of industrial waste and construction and demolishing in soil improvement
- Axial Capacity of Grouted Large Bored Piles
- · Negative Skin Friction of Piles

#### FUNDED RESEARCH PROJECTS

- Influence of industrial contaminants on engineering properties and foundations on Delta granular soils. Tanta University (2010-2011)
- Improvement of Delta soils by introducing vertical columns by deep mixing. Tanta University (2010-2011)

#### **CONSULTATION:**

Dr. Shahien is a licensed consultant of Geotechnical Engineering since December, 2005.

While at Kuwait University, at University of Illinois at Urbana - Champaign, Tanta University and at Hamza Associates consulting firm, Dr. Shahien has been involved in major civil engineering projects in North America and the Middle East. Examples of such projects are:

# • Geotechnical Investigation, Interpretation & Foundation Recommendations of the following partial list:

- West Nile Delta Onshore Gas Terminal Site Near Rossetta, Egypt, 2014-ongoing (Bechtel International/British Petroleum(BP))
- Master Plan of Hydraulic Structure in Egypt (MPHS) 50 Hydraulic Structures (Gas Natural Fenosa
   (Spain) Ministry of Water Resources and Irrigation Reservoirs and Grand Barrages Sector (RGBS))

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- West Nile Delta Onshore Gas Terminal Site D3, Egypt, 2012-2013 (Bechtel International/British Petroleum(BP))
- o Liquefying Natural Gas Facilities (LNG) at Idko, Egypt (Bechtel)
- o Liquefying Natural Gas Facilities (LNG) at El-Gamil, Egypt (**Bechtel**)
- o Rass Issa Refinery, Yemen
- o National Cement Factory, Taez, Yemen
- Over 300 residential units (villas) at Alegria, 6th of October, West of Cairo, Egypt
- o 117 residential complexes at Al-Rehab, East of Cairo, Egypt
- Over 200 residential units (villas) at Rabwa Residential Development, Sheikh Zayed, Egypt
- West Town of Cairo, Egypt
- o East Town of Cairo, Egypt
- o Barwa Complex, New Cairo, Egypt
- o Qatameya Plaza Complex, Egypt
- o Ten towers for Housing of Ministers Council, Nasr City, Cairo, Egypt.
- o Kafr El-Batikh Electrical Power Plant, Damietta, Egypt.
- o El-Shabab Simple Cycle Electrical Power Plant, Esmailia, Egypt.
- o Boroum Port, Yemen
- o Khalfout Port, Yemen
- o Two Wind Farms (120 towers each) at Zafarana, Egypt.
- Gabal 260 Zeit den Hanning in Will as de Frank was Residential Development. Sheikh Zaved.

# Ports, Harbors and Waterfront Structures - Geotechnical analysis, design, specification preparation, and/or monitoring

- Monitoring of Deep Quay Wall in Soft Clay During Dredging Port Said-East Port, Egypt
- Evaluation of Port Said-East Port Phase 1 for Upgrade to serve new category of ships, Egypt
- o Technical support for the construction of Pars Petrochemical Port, Iran
- Evaluation of Stability of existing Dekheila Port, Alexandria, Egypt.
- o Design of Quay walls of Zewatina Fishery Port in Lybia
- o Design of Quay walls of Oquila Fishery Port in Lybia
- Design of Rehabilitation and Strengthening scheme of Damietta Port Quaywall, Egypt.
- o Design Review for the New Zamil Ship Yard, Dammam Port, KSA

# • Ground Improvements - Selection of Technique, Analysis, Design, Controlling acceptance Criteria, and/or specification preparation

- Evaluating different alternatives of foundation schemes for Second Bangkok International Airport (Norwegian Geotechnical Institute NGI)
- o Analysis of OLGA C test embankment (Hydro-Quebec, Quebec, Canada)
- o Lime treatment for stabilization of natural clay slopes (US Army Corps of Engineers, USA)
- o Reclamation, ground improvement for the New Zamil Ship Yard, Damam Port, KSA
- Specification for reclamation and Dynamic compaction behind Quaywall of Boroum Port, Yemen
- o Specification for reclamation and Dynamic compaction behind Quaywall of Khalfout Port, Yemen
- o Rehabilitation and Strengthening of Quay Wall Damietta Port, Damietta, Egypt.
- Ground Improvement and treatments of Sinkholes in Gharbaneiat Area and Railway trac, North Coast, Egypt.
- o Liquefaction Potential and ground improvement of reclaimed island Jumairah Palm, Dubai- UAE
- o Ground Improvement Criteria for two Kuwait New Cities, Kuwait
- Specification for ground improvement of the container terminal at Damietta Port, Egypt

# Preservation of Antiquities - Design, analysis, and/or specification preperation

- Permanent Ground Water Lowering in Old Cairo, Egypt
- Geotechnical Stabilization of Tombs and Flood Control for Valley of the Queen, Luxor,
   Egypt. (Getty Conservation Institute, USA and Supreme Council of Antiquities, Egypt)
- o Library Extension Sant Kathrine Cathedral, Sant Kathrine, Sinai, Egypt

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# Deep Excavation - Design and Analysis of side support and ground control systems, and/or specification preparation

- Design of Side Support System and Ground Water Control for Underground Excavation for Car Park -Sydnawi Palace, Cairo, Egypt.
- New Assiut Barrage, Assiut, Egypt (Tender Study)

# Slopes, Embankment and Dams Analysis

- Settlement and Cracks of Railway embankments in Egypt
- o The Reinforcement of Kaback Dyke, Guinea Geotechnical Investigation and Analyses
- o Feasibility Study of the Rehabilitation of Aswan Dam
- Evaluating the stability of Ririe Dam under the effect of gravity and earthquake loads (US Army Corps of Engineers, Waterways Experiment Station, USA)
- Analysis of LA GRANDE 1 north dyke porewater pressures and settlement (Hydro-Quebec, Quebec, Canada)
- o Analysis of OLGA C test embankment (Hydro-Quebec, Quebec, Canada)
- Lime treatment for stabilization of natural clay slopes (US Army Corps of Engineers, USA)

## Deep Foundations Design and Analysis

- Large Bored piles for Interchange bridges, Cairo-Alexandria Desert Road transfer to Freeway.
- o Large Bored piles for Kafr El-Batikh Electrical Power Plant, Damietta, Egypt.
- Offshore driven piles for the New Zamil Ship Yard, Dammam Port, KSA
- Offshore driven piles for the port of **Surinam**
- o Offshore driven piles for the Miscellaneous Liquid Terminal at Aqaba, Jordan

#### Miscellaneous -

- Subsurface and Groundwater Study at Rabwa Residential Development, Sheikh Zayed, West of Cairo, Egypt
- Liquefaction Potential for Damietta Port, Egypt
- Geotechnical Assessment of cracked Gardens Hillside View Villas, Jebel Ali, Dubai, UAE
- o Consulting Services for Crown Plaza Development Project in **Abu-Dhabi**, UAE.
- o Settlement Analysis of North Giza Electrical Power Plant Structures.
- $\circ \quad \text{Settlement Analysis of El-Shabab Electrical Power Plant Structures}.$

# THESIS SUPERVISION (not Updated)

- o Compressibility Characteristics of Peats in Egypt, MSc Thesis, Cairo University Completed
- Deep Well Dewatering of Square Areas Enclosed by Impervious Walls Partially Penetrating Unconfined Aquifers, MSc Thesis, Cairo University – Completed
- Behavior of Vertical Piles Located Near Slopes and Subjected to Inclined Loads, MSc Thesis,
   Tanta University Completed
- New Experimental and Analytical Method for Evaluation of Soil Behavior: Application on Dry Cemented Sand- PhD Thesis, Tanta University- Completed
- Mechanical Properties of Sandy Soil Containing Sea Shells, MSc Thesis, Tanta University -Completed
- Improvement of Soft Ground Using Stone Columns Technique, PhD Thesis, Tanta University Completed
- Liquefaction Susceptibility of Calcareous Sand of Northern Coast in Egypt, MSc Thesis, Tanta University Completed.
- Slope Stability of Embankment, MSc Thesis, Menoufia University Completed
- Combined Seepage and Slope Stability Analysis of Reservoir Earth Dam, MSc Thesis, Tanta University - Completed

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Influence of Construction Processes Induced Vibrations on Soil and Adjacent Structures, MSc
 Thesis, Tanta University Completed

# THESIS EVALUATION & EXAMINATION (not Updated)

- o Compressibility Characteristics of Peats in Egypt, MSc Thesis, Cairo University (2010)
- o *Influence of Silica Fyoum on the Mechanical Properties of Silica Sand*, MSc Thesis, Cairo University (2010).
- Behavior of Vertical Piles Located Near Slopes and Subjected to Inclined Loads, MSc Thesis,
   Tanta University (2013)
- New Experimental and Analytical Method for Evaluation of Soil Behavior: Application on Dry Cemented Sand- PhD Thesis, Tanta University- (2014)
- o Alexandria 2012
- o Academy 2014
- o Mansoua 2015

# **PUBLICATIONS** (not Updated)

- 1. Shahien, M. M. (2015). "Expansive Soils Characterization: Misleading Practice," 16th African Regional Conference, Tunisia.
- Shahien, M. M., and El-Naggar, H. M. (2015). "Analysis of Axial Pile Load Test(s) on Large Bored Grouted and Instrumented Piles," Proceedings of International Conference on Advances in Structural and Geotechnical Engineering, ICASGE15, Hurghada, Egypt
- 3. Mohamed, D. R., Shahien, M. M., and Hafez, H. H. (2015). "Influence of Well Location on Drawdown in Area Surrounded by Vertical Cutoff Walls," Proceedings of International Conference on Advances in Structural and Geotechnical Engineering, ICASGE15, Hurghada, Egypt
- Kirra, M. S., Shahien, M. M., Zeidan, B. A., and El-Shemy, M. (2015). "Seepage and Slope Stability Analysis of Mandali Earth Dam, Iraq: A Case Study," Proceedings of International Conference on Advances in Structural and Geotechnical Engineering, ICASGE15, Hurghada, Egypt
- 5. Sobhey, M., Shahien, M. M., El Sawwaf, M. And Farouk, A. (2015). "A Numerical Study of Sandy Slopes Reinforced With Piles," *Proceedings of International Conference on Advances in Structural and Geotechnical Engineering*, ICASGE15, Hurghada, Egypt
- 6. Kirra, M. S., Zeidan, B. A., Shahien, M. M., and El-Shemy, M. (2015). "Seepage Analysis of Walter F. George Dam, USA: A case Study," *Proceedings of International Conference on Advances in Structural and Geotechnical Engineering*, ICASGE15, Hurghada, Egypt
- Shahien, M. and A. H. Albatal (2014). "SPT-CPT Correlations for Nile Delta Silty Sand Deposits in Egypt," Proceedings of CPT'14 International Symposium on Cone Penetration Testing, Las Vegas, USA. Paper 2-43.
- 8. Hamza, M. and M. Shahien (2013). "Compressibility Parameters of Cohesive Soils From Piezocone," Proceedings of the 18th International Conference on Soil Mechanics and Geotechnical Engineering, Paris, France.
- 9. Farouk, A. and M. Shahien (2013)." Ground Improvement Using Soil-Cement Columns: Experimental Investigation," Alexandria Engineering Journal, AEJ, Elsevier; ISSN: 1110-0168.
- 10. Shahien, M. and A. H. Albatal (2013). "Effect of neighboring footings on single footing settlement," Proceedings of 7th International Conference on Case Histories in Geotechnical Engineering, Chicago, USA.
- Shahien, M. and A. Farouk (2013). "Estimation of Deformation Modulus of Gravelly Soils using Dynamic Cone Penetration Tests," Ain Shams Engineering Journal, ASEJ, Elsevier; ISSN: 2090-4479

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12. Shahien, M., W. Ogila, A. Hefdhallah and N. Rabie (2013). "Drainage management of excess irrigation water in arid area," Proceedings of 6th International Perspective on Water Resources and Environment, ASCE, Izmir, Turkey.

- 13. Mohamed, D. R., M. Shahien and H. Hafez (2013). "Effect of well depth and depth of surrounding impervious wall on drawdown of ground water control system in an unconfined aquifer," Proceedings of 6th International Perspective on Water Resources and Environment, ASCE, Izmir, Turkey
- 14. Shahien, M. and A. Farouk (2012). "Correlation between compressibility of gravely deposits and dynamic cone penetration tests," Proceedings of 3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Nicosia, North Cypris.
- 15. Shahien, M. and A. Farouk (2012). "Experimental Investigation on Behavior of Footings on Contaminated Delta Soils," Proceedings of 3<sup>rd</sup> International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Nicosia, North Cypris.
- Salama, M. E and M. Shahien (2012). "Analysis of static and dynamic axial pile load tests,"
   Paper ID 66 Deep Foundations Institute Middle East Conference American University At Dubai, Dubai, UAE.
- 17. Farouk, A. and M. Shahien (2012). "Stabilization of Nile Delta Soil By Deep Mixing Method," *International Conference on Ground Improvement and Ground Control (ICGI2012)*, University of Wollongong, Australia
- 18. Hamza, M. and M. Shahien (2009). "Effective Stress Shear Strength Parameters From Piezocone," 17thInternational Conference on Soil Mechanics and Geotechnical Engineering, Alexandria, Egypt.
- 19. Shahien, M. (2007). "New Simple Procedure to Estimate Liquefaction Resistance from in-situ Penetration Resistance: Evaluation and comparison with existing procedures," 14th Regional African Conference on Soil Mechanics and Geotechnical Engineering, Younde, Cameroon.
- 20. Shahien, M. (2007). "New Procedure to Estimate Liquefaction Resistance from Penetration Resistance Using Field Records," 4th International Conference on Earthquake Geotechnical Engineering, Thessaloniki Greece.
- 21. Shahien, M. (2007). "New Simple Procedure to Estimate Liquefaction Resistance from Penetration Resistance: Evaluation And Comparison with Existing Procedures," 6th Alexandria International Conference on Structural and Geotechnical Engineering.
- 22. Shahien, M. (2006). "Characterization Of A Swelling Claystone: Physical, Mineralogical And Mechanical Properties," 2nd International Conference on Problematic Soils, Malaysia.
- 23. Hamza, M., M. Shahien and S. Corrie (2006). "Groundwater Problems And Solutions In Desert Arid Areas," 2nd International Conference on Problematic Soils, Malaysia.
- 24. Hamza, M., M. Shahien and M. Ibrahim (2005). "Characterization and undrained shear strength of Nile delta soft deposits using piezocone," 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan.
- 25. Khalil, M., M. Shahien, M. El-Meligy, S. El-Metwally and M. Mossaad (2005). "Estimation of geotechnical properties of dry cemented sand by static horizontal penetration test," 11th International Colloquium on Structural and Geotechnical Engineering, Ain Shams University, Cairo, Egypt
- Hamza, M. and M. Shahien (2004). "The Construction Slopes Landslide At The Left Abutment Of The Mujib Dam, Jordan," International Conference on Geotechnical Engineering, Sharjah, UAE.
- 27. Mesri, G. and M. Shahien (2004). "Residual Shear Strength Mobilized in First-time Slope Failures," -Closure, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 130, No. 5.
- 28. Hamza, M., M. Shahien and M. Ibrahim (2003). "Geotechnical Characterization of Soft Deposits in Western Nile Delta," 13th Regional African Conference on Soil Mechanics and Geotechnical Engineering, Marrakech, Morocco.
- 29. Khalil, M., M. Shahien, M. El-Meligy, S. El-Metwally and M. Mosaad (2003). "Assessment of

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Geotechnical Properties of Dry Cemented Sand by Horizontal Penetration," 9th Arab Structural Engineering Conference, Abu Dhabi, UAE.

- 30. Mesri, G. and M. Shahien (2003). "Residual Shear Strength Mobilized in First-time Slope Failures," Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 129, No. 1.
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