Hassan M. Abouseeda
64 Elgeish Road, Sporting, Alexandria, EGYPT
Phone: (+2) 0100 163-3314 ◆ Email: hassan@geotechegypt.com ◆ www.geotechegypt.com



EDUCATION

Ph.D., Civil Engineering, May 1996 (GPA 4.0/4.0)
Rice University, Houston, Texas.
Thesis: "*Nonlinear seismic response of earth dams using a coupled boundary element - finite element formulation.*"

M.S., Civil Engineering, May 1996
Rice University, Houston, Texas.

B.Sc., Civil Engineering, June 1989 (GPA 3.9/4.0)
Alexandria University, Alexandria, Egypt
Rate of Appreciation: Distinction with honors (Top 1%)
Special Topic: "*Geotechnical Engineering*".

BACKGROUND

- Offshore and Marine design.
- Geotechnical engineering; Foundation analysis and design; Infra-structure design and Safety assessment.
- Structural engineering; advanced numerical analysis; Engineering dynamics.

EXPERIENCE

Associate Professor, *May 2005 - present*

Lecturer, *January 1998 - 2005*
Structural Engineering Department, Faculty of Engineering, Alexandria University, EGYPT

- Teaching post graduate courses:
  - Advanced geotechnical engineering.
  - Geotechnical earthquake engineering.
  - Infra-structure Design.
- Teaching under graduate courses in geotechnical engineering.
- Supervising graduation projects in Geomechanics and Foundations for final year students.
- Supervised 14 M.S. degree and 2 Ph.D. students.

Principal & Director, *January 2010 – Present*
Geotechnics, Engineering Consulting Office

- Marine and Structural design review and supervision of South Berth and Dry Dock Upgrade project, Alexandria Ship Yard, Alexandria, Egypt.
- Marine and Structural design and supervision for 50ton maintenance platform and 3 quay walls Algabbana, Republic of Yemen.
- Marine and Structural design and supervision for maintenance of Alhodaida Port, Republic of Yemen.
- Participated in designing Domyat Military Harbour (Sheet pile Wall).
- Participated in designing Alexandria Shore Protection Project, Eastern Section.
- Participated in designing Seafront Protection of Police and Teachers Club, Alexandria, Egypt.

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Senior Engineering Consultant, Partner, *November 2005 – January 2010*
Abouelfadl-Elhadary-Elkholy Consultants, Alexandria, EGYPT

- Participated in designing Shore protection and Water ways of Ganna Bay Touristic Compound-Alhodaida-Yemen.

Senior Engineering Consultant and Partner, *January 1998-2005*
FACB consulting bureau, Alexandria, EGYPT

- Participated in numerous engineering projects including but not limited to:
  - Design of quay walls in Alexandria Harbor extension and Petrojet Harbor at Elmeadia.
  - Design of a new harbors in Yemen (Alkatheeb-Hudaida, Alkhoka, Midi).
- Participated in a number of offshore related engineering projects:
  - Revision of structural engineering design and the design and engineering of the launch process of Rosetta jacket, offshore Rasheed city, Egypt.
  - Revision of structural engineering design and the design and engineering of the launch process of Temsah jacket, offshore Suez city, Egypt.

Senior Consultant, *October 2001 – September 2002 and May 2003 – January 2004*
Mustang Engineering, Houston, Texas, USA

- Participated in the design of Holstien top-sides. Performed structural design, stress checks, panel buckling checks and connection design. Developed code and performed fatigue analysis. Performed load-out analysis and lift analysis. Client: BP.
- Participated in the design of Mad-Dog top-sides. Performed structural design, stress checks, panel buckling checks and connection design. Developed code and performed fatigue analysis. Performed load-out analysis and lift analysis. Client: BP.
- Participated in the design of Benguela Belize compliant piled tower offshore Angola, West Africa. Performed structural design, in-place time domain dynamic analysis and time-domain fatigue analysis. Client: Chevron-Texaco.

Senior Engineering, *May 1996 – December 1997*
***Fugro McLellan Marine Geosciences**, Houston, Texas*

- Participated in preparing numerous geotechnical reports for off-shore structures.
- Participated in supervising boring operation offshore the Gulf of Mexico.
- Supervised conduction of advanced geotechnical laboratory test such as: resonant column, cyclic tri-axial, and CRS odometer tests.
  Clients: BP, Chevron-Texaco, Exxon-Mobil, Pemex, Petrobras.
- Responsible for conducting advanced numerical analysis on offshore foundation elements.
- Participated in a joint project with Amoco Oil Company to develop new design procedure for offshore suction foundations, including advanced numerical analysis using the Abaqus FEM software.

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Research Assistant, *August 1991- May 1996*
Department of Civil Engineering, Rice University, Houston, Texas, USA

- Assessed the dynamic effects of seismic wave propagation on earth dams.
- Developed hybrid numerical Finite-Boundary Element codes to study the dynamic response of structures over a half space.

Consulting *(part time), 1993-1996*
Prof. Panos Dakoulas Office, Houston, Texas, USA

- Participated in conducting the seismic evaluation of an offshore structure in Lake Maracaibo, Venezuela (1996).
- Participated in the seismic evaluation of the piers of Tagus River Bridge, Lisbon, Portugal, including seismic soil-structure interaction using the Finite Element code SASSI (1995).
- Participated in conducting the seismic modeling and analysis of the Evinos earth dam, Athens, Greece (1994).

Teaching assistant, *August 1991 -May 1992*
Department of Civil Engineering, Rice University, Houston, Texas, USA

- Assisted in supervising and grading a number of structural and geotechnical engineering courses.

Teaching assistant, *August 1989-June 1991*
Department of Civil Engineering, Alexandria University, Egypt

- Assisted in teaching and grading undergraduate classes in the structural engineering department.

Structural Engineer, *July 1990- July 1991*
FACB Consulting Bureau, Alexandria, Egypt

- Conducted all soil laboratory tests and prepared lab reports.
- Supervised field geotechnical investigation programs and geotechnical field testing.
- Participated in analyzing, designing a number of steel and concrete buildings, steel factories and storing sheds, petrochemical installations, crane bridges, and other.

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AWARDS AND HONORS

- Annual fellowship awardee of the United States Committee On Large Dams (USCOLD) 1992.
- Fellowship award, Department of Civil Engineering, Rice University, 1991-1992.
- Member, Chi-Epsilon, American Society of Civil Engineers.
- Award of distinction, Department of Civil Engineering, Alexandria University, 1984-1989.

TECHNICAL COURSES

- Attended advanced training course on the applications of SACS off-shore finite element package, Houston, Texas, 1999.
- Attended advanced training course on the applications of Abaqus finite element package, Detroit, Michigan, 1997.

COURSE WORK

- Graduate Level, *Rice University*
  Structural Dynamics l&ll, Advanced Geotechnical Modeling, Geotechnical Earthquake Engineering, Advanced Mechanics of Solids, Probabilistic Structural Dynamics, Waves in Heterogeneous Media, Concrete Building Design, and Applied Mathematics l&ll
- Graduate Level, *Alexandra University, Egypt.*
  Finite Element Method, Soil Dynamics & machine Foundations, Theoretical Soil Mechanics and Matrix Methods in structures.
- Undergraduate Level, *Alexandria University, Egypt.*
  Concrete Design I, ll&Ill, Steel Design l&lI, Structural Analysis I, Il&lll, Soil Mechanics l&ll, Foundation Engineering, Material Testing l&ll, Surveying l&ll.

COMPUTATIONAL SKILLS

Environments: Sun, IBM, SGI (UNIX), Personal Computers (PC and MAC).
Operating Systems: Unix, Windows, VMS, MacOS.
Languages: Fortran, C++, .Net Architecture, Visual Basic, Matlab, Mathematica.
Engineering Software: Abaqus/Standard, Abaqus/Explicit, Ansys, Plaxis, Nastran, Patran, Marc, Sap2000, Etabs, Safe, Robot, Staad, Cap-seastar, etc.
Drafting Software: Solid works, Autocad, Pro-E.

PERSONAL DATA

Date of Birth: December 9,1967.

PUBLICATIONS

Available upon request.

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PROJECTS *(off-shore)*

OFFSHORE AND HARBOR DESIGN

Client	Project	Project Budget Million EP	Role	Affiliation
Ministry of Interiors	Shore Protection for Sea Club, Alexandria	28	Design-Supervision	Dr. Mahmoud Fayez Zaki
Alexandria Governorate	Eastern Shore Protection of Alexandria - Egypt	130	Design	Dr. Bahaa Alsharnoubi
Alexandria Shipyard Company	Upgrading New Dry Dock	60	Design-Supervision	Geotechnics
Alexandria Shipyard Company	Upgrading Alexandria Shipyard	1800	Design review-Supervision	Dr. Mahmoud Fayez Zaki
Yemen Harbor Authorities	Maintainance of Alhodaida Quay Wall	8	Design-Supervision	Geotechnics
Yemen Naval Forces	Al Katheeb Harbor -quay wall and break waters	500	Design-Supervision	FACB
Yemen Coast Guard	Adan harbor	30	Design-Supervision	FACB
Yemen Engineering Corps	Adan harbor retrofitting	15	Design-Supervision	Geotechnics
Yemen Engineering Corps	Algabbana harbor	120	Design-Supervision	Geotechnics
Alwadei Group	Meedi Harbor - quay wall and break waters- Yemen	250	Design-Supervision	Geotechnics
Alwadei Group	Alkhawba Harbor retrofitting- Yemen	20	Design-Supervision	Geotechnics
Alwadei Group	Allsaleef quay wall retrofitting- Yemen	12	Design-Supervision	Geotechnics
Egyptian Naval Forces	Damietta harbor	30	Design	Dr. Hamdi Alqamhawy
Petrojet-PMS	Almeadeia quay wal	25	Design	FACB
Chevron	Benguila-Beleiz Complaint Tower - Angola	6000	Design	Mustang Engineering
BP	Mad Dog Spar and topside	1500	Design	Mustang Engineering

BP Holstein, GOM



The Mustang scope of work included the evaluation and selection of development scenarios followed by the execution of the Topsides Engineering for the chosen configuration. Mustang also provided project management support and procurement services to BP for the duration of the project up to, and including, commissioning. In addition to full topsides design responsibility for the projects Mustang also managed project interfaces with other contractors on behalf of BP. First oil achieved December 2004. Holstein was the first project to use spar-supported individually tensioned risers — a new technology that will allow spar structures to venture into deeper waters.

BP Mad Dog, GOM



Mustang was responsible for the topsides design, including detailed design and fabrication support. The floating facility hull, moorings, and marine systems will be classed as a Floating Offshore Installation (FOI) truss spar arrangement. Mustang also provided project controls support and interface coordination of hull, riser, and drill rig systems. In addition to full topsides design responsibility for the projects Mustang also managed project interfaces with other contractors on behalf of BP.

Chevron Benguela-Belize Compliant Piled Tower, Offshore Angola



Conceptual and costing studies, front-end engineering, detail design for a compliant tower in 1,300 feet of water. Mustang was the winner of a five company design competition for the FEED work that included entries representing various deepwater concepts. The tower was the first compliant tower structure to be installed outside of the Gulf of Mexico. The Benguela-Belize tower supports more than 40,000 short tons of topsides and 40 well slots. Mustang was awarded the design after performing front-end engineering design as well as pre-feed services. The bottom-founded structure, chosen over a floating facility, is a cost-effective design in deepwater environments. The tower was installed in April 2005, with topsides installation May 2005. Benguela-Belize was selected as the Project of the Year for the industry's **2005 Offshore Energy Achievement Awards**.