

# KHALED M. ABDELATTY

Address: Al-Zhour - sector 2  
Zagazig, Sharkia, Egypt  
Telephone: +2 01007895382  
E-mail: [khaled.abdelatty@zu.edu.eg](mailto:khaled.abdelatty@zu.edu.eg)



## PROFESSIONAL SUMMARY

I am, An experienced Egyptian Geo-environmental Professional Engineer and University Lecturer with over 28 years of academic and practical experience. Open to work where my education, research, teaching, professional skills and practical engineering experience can merge all together to help teaching undergraduate students how to become the future clever environmentalists and earth scientists and improve myself to accomplish higher academic degree through good research in the area I am interested in.

## EDUCATION

- **PhD – Geo-Environmental Engineering** – Queens University – Canada (08/2010)

Title “An Evaluation of the Environmental Protection Provided by Composite Liners Systems” (Thesis-based degree)

I was a member of a research team under the supervision of Prof. Ronald Kerry Rowe, one of the best professors and researchers in the field of Geo-environmental engineering focused on geosynthetic materials uses and applications in solving environmental soil problems including studying the microscale soil chemistry and cation exchange capacity that occur within earth between fine soil grains such as bentonite and the contaminants.

Contaminant transport experimental model was created along with a numerical model to measure the spread of contaminants in the ground where a landfill existed lined with composite liners.

My research program was awarded many grants NCERC, OGS also was sponsored from many industry partners including Terrafix Geosynthetics Inc. and Golder Associates.

- **Master of Engineering - Environmental** – Carleton University – Canada (09/2002-08/2003)

(Courses-based degree) (Grad A)

Courses Studies:

- Modeling of ground water Flow and Contaminant Transport.
- Solid waste Management.
- Environmental Impact Assessment
- Selective course 1 “Using Geophysical methods in detecting Contaminant Transport”
- Selective Course 2 “Design of Laboratory Experiment”

- **Master of science MSc. - (Geotechnical)** - in structural engineering Department – Faculty of Engineering – Zagazig University – Egypt (09/1996 – 11/2000)

"Geotechnical Behavior of Sanitary Landfills" (Geo-environmental Engineering).

(Thesis-based degree)

A large-scale experimental program and numerical modeling was created studying the change in geotechnical properties of waste layers in landfill due to decomposition with time. and predict the settlements that happen for any structures build on landfills. Chemical testing program carried out to measure the change of contaminant's concentration with time and the effects of this contaminants on the surrounding environment.

### **Bachelor of civil engineering (09/1990 – 05/1995)**

Faculty of Engineering – Zagazig University – Egypt

(Very good with Honor Average of 5 years 83.7%)

Graduation project: Environmental Engineering – (Sanitary) Final grad (Excellent - Grad A+)

## **SKILLS**

### **Technical skills**

- Use technology in teaching
- Expert in numerical modelling for soil problems
- Expert in Laboratory model design
- Expert in field testing of soil
- Using numerical modeling software
- GIS

### **Communicate**

- Able to speak clearly so listeners can understand.
- Easily understand written information.
- Able to read and understand work-related materials.
- Understand spoken information.
- Understand new information or materials by studying and working with them.
- Able to write clearly so other people can understand.
- Always listen to others and ask questions.
- Analyze ideas and use logic to determine their strengths and weaknesses.
- Combine several pieces of information and draw conclusions.
- Use reasoning to discover answers to problems.
- Recognize the nature of a problem.
- Judge the costs and benefits of a possible action.
- Notice when something is wrong or is likely to go wrong.
- Follow guidelines to arrange objects or actions in a certain order.
- Think of new ideas about a topic.
- Develop rules that group different items in various ways.
- Think of a creative way to solve problems.
- Recognize when important changes happen or are likely to happen in a system.

- Identify what must be changed to reach goals.
- Check how well one is learning or doing something.
- Manage the time of self and others.
- Teach others how to do something.
- Use several methods to learn or teach new things.
- Be aware of others' reactions and understand the possible causes.
- Change behavior in relation to others' actions
- Expert in leading team work

### **Languages**

- Fluent English
- Good French
- Arabic mother tongue

### **Academic Work Experience:**

- **Senior lecturer of Geotechnical Engineering** (12/2013 – present)  
Faculty of Engineering, Zagazig University, Egypt.
- Teaching duties in the Civil Engineering Discipline including teaching undergraduate courses such as:
  - Engineering Geology
  - Soil science
  - Soil mechanics
  - Soil chemistry
  - Problematic Soil
  - Ground water flow & dewatering.
- **Research Duties** including carrying out research within the Geotechnical and environmental engineering groups
- Supervise graduate students for masters and PhD during their research
- **Lecturer of Geotechnical Engineering** - (01/2011-12/ 2013)  
Department of Civil Engineering Higher - Institute of Engineering and technology at 10th of Ramadan City, Egypt.
- Teaching
  - Engineering Geology
  - Soil science
  - Soil mechanics
  - Selective topics in soil and environment
  - Soil chemistry
  - Foundation design

- **Teaching and Research Assistant** (09/2003–08/2010)  
Geo-engineering center of Queen’s University - Kingston, On., Canada
- **Teaching Assistant, (09/2002–08/2003)**  
Department of Environmental Engineering - Carleton University - Ottawa, On., Canada
- **Teaching Assistant, (09/1995–08/2002)**  
Department of Structural Engineering - Zagazig University, Egypt.

### **Non- Academic Work Experience**

Practice Professional engineering in the field of Geotechnical design and environmental protection  
For:

- Zagazig University Center of Engineering Research and Consulting. (01/2014 – Present)
- Al-Madina Al Monawara for Engineering Designs and consulting. (01/2011 – Present)
- Technical Manager of MCAFERRIE middle east -Saudi Arabia Projects. (01/2016 – 06/2017)

### **ACCOMPLISHMENT**

1- Engineering Designs and consulting

- Design over 30 different projects including tunnels, offshore structures, bridges, and high-rise buildings
- Design over 20 projects including geosynthetic soil reinforcement
- Supervise construction of many projects Saudi Arabia
- Manage, supervise and performed laboratory and field soil testing for writing soil reports for over 50 projects

2- Academic work

Supervise 3 MSc., 1 PhD

Published 18 papers

### **PUBLICATIONS**

Journal papers: 13

Conferences: 5

- **On going research**

**Abdelatty, K. and Rowe, R.K (2023).** “Factors affecting the swelling of bentonite layer within the GCL in landfill applications”, Canadian Geotechnical Journal, (under review)

**Rowe, R.K and Abdelatty, K. (2023).** “Modeling contaminant transport during Moisture uptake by GCL in Landfill Cover”, Canadian Geotechnical Journal, (under review)

- **Already published work**

**Abdelatty, K. and Shallan O. (2022).** “Using geogrid basal reinforcement to reduce differential settlement under adjacent isolated footings” Mansoura Engineering Journal (MEJ) Vol. 47 (28-40)

- Abdelatty, K. and Shallan O. (2022).** "Behavior of isolated footings on weak to medium soil", Journal of Al-Azhar University Engineering Sector Vol. 17 (25-33)
- Abdelatty, K. and Shallan O. (2022).** "A Review on the Design, Applications and Numerical Modeling of Geogrid Basal Reinforced Soil" Egyptian International Journal of Engineering Sciences and Technology (EIJEST) Vol. 40 (42–53)
- Salem, T., Abdelatty, K. and Aboshita N. (2021).** "Design Guidelines for Laterally Loaded Large Diameter Piles", Design Engineering Journal, Issue: 7 (6674 - 6694)
- Abdelatty, K. and Aboshita N. (2021).** "Behavior of large Diameter piles under the effect of dynamic loads", Alexandria University International conference of soil mechanics and Foundation (AICSGE), (840 - 854)
- Salem, T., Abdelatty, K. and Abdallah Ahmed (2021).** "The pile Response in Coastal Soil formation under combined loads ", Design Engineering Journal issue 6 (2189-2207)
- Abdelatty, K. and Abdallah Ahmed (2021).** "Efficiency of settlement reducing piles in Coastal Soil formation under static loads", Alexandria University International conference of soil mechanics and Foundation (AICSGE), (1022- 1038)
- Salem, T., Abdelatty, K. and and Aboshita N. (2020).** "Modeling of Large Diameter Piles in Soil Formations Including Soft Clay", Port Said Engineering Research Journal Vol 24 No. 1 (44-53)
- Salem, T., Abdelatty, K. and Abdallah Ahmed (2020).** "Numerical Assessment of pile Capacity in loose sand in North-Eastern Egypt", Port Said Engineering Research Journal Vol 24 No. 1 (54-64)
- Rowe, R.K and Abdelatty, K. (2013).** "Leakage and contaminant transport through a single hole in the geomembrane component of a composite liner", ASCE Journal of Geotechnical and Geo-environmental Engineering, 139(3): 357-366.
- Rowe, R.K and Abdelatty, K. (2012).** "Effect of a calcium-rich soil on the performance of an overlying GCL", ASCE Journal of Geotechnical and Geo-environmental Engineering, 138(4): 423-431.
- Rowe, R.K and Abdelatty, K. (2012).** "Modeling contaminant transport through composite liner with a hole in the geomembrane", Canadian Geotechnical Journal, 49 (7): 773-781.
- Rowe, R.K. and Abdelatty, K. (2009).** "Impact of the calcium uptake on the performance of GCLs in landfill covers", 17th International Conference on Soil Mechanics and Geotechnical Engineering (Alexandria) (ISSMGE) (3388-3392)
- Rowe R. K. and Abdelatty K.(2007)** "Evaluation of two analytical equations for leakage through holes in composite liners," 60th Canadian Geotechnical Conference, Ottawa, October, (1297-1302).
- Haggag, A., Bayoumi, S., Mashhour, M. and Abdelatty, K., (2001)** "Shear Strength of Sanitary Landfills", Proc. 4th Int. Alex. Conf. On Struct. And Geotech. Eng., Faculty of Engineering., Alexandria Univ., April 2001, (925-934)
- Abdelatty, K., Mashhour, M. and (2001)** "Prediction of long-term landfill settlements", Proc. 4th Int. Alex. Conf. On Struct. And Geotech. Eng., Faculty of Engineering., Alexandria Univ., April 2001, (966-977)