ABDELHALEEM I. KHADER

Assistant Professor, Department of Civil Engineering
An-Najah National University, Nablus, Palestine
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EDUCATION

PhD, Civil and Environmental Engineering August 2012
Utah State University, Logan, Utah, USA **GPA 3.90**
Dissertation: "Value of information from groundwater quality monitoring network design under uncertainty in climate and aquifer properties" Advisor: Dr. Mac McKee

M.S, Water and Environmental Engineering April 2007
An-Najah National University, Nablus, Palestine **Average 90.9%**
Thesis: "Impact of Pumping on Saltwater Intrusion in Gaza Coastal Aquifer, Palestine" Advisor: Dr. Mohammad Almasri

B.S, Civil Engineering January 2004
An-Najah National University, Nablus, Palestine **Average 89.1%**
Project: "Seismic and Structural Design of the new Engineering Building, An-Najah National University " Advisor: Dr. Abdel-Razzaq Touqan

RESEARCH INTERESTS

Monitoring Network Design	Statistical Learning Machines
Value of Information Analysis	Surface water/Groundwater Modeling
Water/Groundwater Quality	Decision Tree Models

HONORS AND AWARDS

First Place, J. Paul Riley AWRA-Utah Section Student Water Resources Conference and Paper Competition — April 10, 2012, Logan, UT, USA

PROFFESSIONAL EXPERIENCE

Postdoctoral Fellow 2012- 2013
Department of Civil Engineering, McMaster University Hamilton, ON, Canada

- Main Project: "Decision Support Tool for Integrated Water Monitoring Network Design and Evaluation"
- Estimation of groundwater recharge in southern Ontario, Canada using distributed models and streamflow records approach
- Distributed precipitation-runoff modeling for southern Ontario, Canada using PRMS
- Groundwater monitoring network design using Bayesian multi-objective evolutionary algorithm (ε-hBOA)
- Integrated precipitation/surface water/groundwater/water quality monitoring networks design and evaluation

Graduate Student / Research Assistant 2007-2012
Utah Water Research Laboratory, Utah State University Logan, UT, USA

- Groundwater flow modeling for the Eocene Aquifer, Palestine using MODFLOW
- Nitrate fate and transport modeling for the Eocene Aquifer using MT3DMS
- Uncertainty analysis using Monte Carlo Simulations
- Monitoring network design using statistical learning machines
- Studying the health risk consequences of nitrate pollution
- Value of information analysis for optimal monitoring network design
- Pre-mining Groundwater analysis for potash mining in Lisbon Valley in southeastern Utah (undergoing project)

Instructor, Iraqi Agriculture Extension Revitalization Program October 2009
Utah State University Logan, UT, USA

- Conducted lectures in water quality and hydrology
- Prepared tests, grading, and evaluations
- Translated for Arabic speakers and I led discussions in field trips to southern Utah

Master Student, Water and Environmental Studies Institute 2004-2007
An-Najah National University Nablus, Palestine

- Worked on saltwater intrusion modeling using MODFLOW, SEAWAT, and GWM

Teaching Assistant, Civil Engineering Department 2004
An-Najah National University Nablus, Palestine

- Instruction, grading, and preparing tests for Construction Materials Lab and Structural Analysis II

Site Engineer, Engineering Works Department 2004-2007
An-Najah National University Nablus, Palestine

- Worked in supervising the new science building. Total cost of the project: $8,000,000. Total area: 18,000 m^2
- Prepared bills of quantities and as-built maps
- Modified structural designs when needed
- Supervised daily activities of 120 construction workers
- Reviewed monthly bills by the contractor
- Reviewed and signed monthly payments for the contractor

PUPLICATIONS (PEER-REVIEWED)

- Abdelhaleem Khader, David E. Rosenberg, Mac McKee (2012). "A decision tree model to estimate the value of information provided by a groundwater quality monitoring network." *Hydrology and Earth System Sciences Discussion*, 9(12), 13805-13837.
- Abdelhaleem Khader and Mac McKee (2013). "Use of a relevance vector machine for groundwater quality monitoring network design under uncertainty" *Environmental Modeling and Software*, under review.

CONFERENCE PRESENTATIONS

- A.Khader, M. McKee, and David Rosenberg (2012). "Integrated groundwater quality monitoring network design, Case study: Eocene Aquifer, Palestine". Computational Methods in Water Resources, XIX International conference. Urbana-Champaign, IL 2012.
- A.Khader, M. McKee (2010). "Value of information analysis for groundwater quality monitoring network design". American Geophysical Union (AGU) Fall meeting. San Francisco, CA 2010.
- A.Khader, M. McKee (2010). "Groundwater Monitoring Network Design under Uncertainty in Climate and Aquifer Properties". Utah State University Spring runoff conference. Logan, UT 2010.
- A.Khader, M. McKee (2010). "Analyzing the Impacts of Climate Change on Groundwater Monitoring Network Design Using GIS". American water resources association (AWRA) spring specialty conference. Orlando, FL 2010.
- A.Khader, M. Amasri (2008). "Impact of Pumping on Saltwater Intrusion in the Gaza Coastal Aquifer, Palestine". Universities council on water resources (UCOWR) conference. Durham, NC 2008.

TRAINING COURSES

Getting Started as a Successful Proposal Writer and Academician — April 2012, Logan, UT, USA
An intensive one-day workshop for beginning concepts in grant writing
Office of Research and Graduate Studies, Utah State University

Integrated Water Resources Management (IWRM) — September 2005
Water Studies Institute, Birzeit University, Palestine. — Birzeit, Palestine

Seismic Design of Buildings — December 2003
Engineers Association – Jerusalem Center — Nablus, Palestine

PROFESSIONAL AFFILIATIONS

American Geophysical Union
American Society of Civil Engineers
Jordanian Engineers Association – Jerusalem Center

LANGUAGES

English (fluent)
Arabic (fluent)

COMPUTER SKILLS

MATLAB	R	ArcGIS
PRMS	RORA	RECESS
LINGO	ARCHYDRO	ERDAS
MT3DMS	MODFLOW	SEAWAT
EPANET	GWM	AUTOCAD
MS PROJECT	MS OFFICE	