

Abdul-Aziz A. Banawi, PhD, LEED Green Associate

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EDUCATION:

Doctor of Philosophy in Civil Engineering – Construction Management and Sustainability

University of Pittsburgh 2013

Master of Science in Civil Engineering – Construction Management

Florida Institute of Technology, 2008

Master of Science in Systems Engineering – Engineering Management

Florida Institute of Technology 2008

Bachelor of Science in Architecture – Architecture

King Abdulaziz University 2003

Appointments:

2013 to Present: Assistant Professor, Department of Architecture Engineering
United Arab Emirates University, Al-Ain, United Arab Emirates

2010 to 2013: Graduate Research Assistant, Department of Civil and
Environmental Engineering, University of Pittsburgh, Pittsburgh

2007 to 2008 Graduate Research Assistant, Department of Civil Engineering,
Florida Institute of Technology, Melbourne, Florida

2003 to 2006 Architect, PARSONS Ltd., Royal Commission for Industrial
Yanbu, Saudi Arabia.

2002 to 2003 Architect in Training, Harsani Architects, Jeddah, Saudi Arabia

REFEREED JOURNAL PUBLICATIONS

Submitted

1. Banawi, Abdulaziz, Qadir, Ghulam. (2014) "Identify the Barriers to Widely Construct Green Buildings in United Arab Emirates – Case Study." Submitted to International Journal of Sustainable Built Environment, Elsevier.

Accepted/Published

1. Banawi, Abdulaziz, and Melissa M. Bilec. "A framework to improve construction processes: Integrating Lean, Green and Six Sigma." *International Journal of Construction Management* 14.1 (2014): 58-71.
2. Banawi, Abdulaziz, and Melissa M. Bilec. "Applying Lean, Green, and Six-Sigma Framework to Improve Exterior Construction Process in Saudi Arabia." *Journal of Construction Engineering and Project Management* 4.2 (2014)

Articles in Progress

1. Banawi, Abdulaziz, Qadir, Ghulam. (2014) "Residential Life Cycle Assessment Modeling: Comparative Case Studies of Internal Partition Gypsum board system and masonry concrete: Residential Complex in Al-Ain, United Arab Emirates." To be submitted to *Journal of Green Buildings*.

REFEREED CONFERENCE PROCEEDINGS

1. Banawi, Abdulaziz, Bilec, Melissa. (2014). "A model combining three methods lean, green, and six-sigma (lg6) to identify waste in construction processes prior to construction phase." World Sustainable Buildings, October 28–30, 2014, Barcelona, Spain.

PRESENTATIONS AND POSTERS

1. Banawi, Abdulaziz, and Melissa M. Bilec. "Applying Lean, Green, and Six-Sigma Framework to Improve Exterior Construction Process in Saudi Arabia." Poster, Engineering Sustainability 2013, April 7-9, 2013, Pittsburgh, Pennsylvania.

TEACHING EXPERIENCE

GENG 215: Introduction to Ethics and Design: Fall 2013, enrollment 20 to 35

This course introduces students to Engineering Ethics, as a set of moral principles that relate to Engineering projects and designs. The course explores creative ways of reconciling conflicting moral claims. It outlines the responsibilities of Engineers towards public safety and the environment, within economic constraints and governing laws. A systematic Engineering Design process is introduced. Each design stage explores relevant methods and their ethical implications. The course critically examines litigations that involve the engineering profession in relation to product liability.

Students' quotes from course and instructor final evaluation for Fall 2013:

"Ethics is one of the difficult course in CRU and hard to understand. However, our doctor abdulaziz made it very easy and enjoyable. He's like our big brother. He did his best to help us. I cannot imagine myself being taught ethics by another instructor. I think he's without doubt the best who's teaching this subject in UAEU. He's using his previous experiment and knowledge to simplify the course. What a perfect doctor he is."

"The most enjoyable and interesting course I ever attend! Seriously I enjoyed every second on it, I loved the course I learned a lot from ethics and I enjoyed the design part. Additionally, this course is the definition of reality, I learned, I do it in real life! Beside, Dr. Abdul Aziz was way to helpful, even if I'm yawning in his class I got the idea because of his examples from life. Thanks because I attend a class like this, it will be a memorable course!"

ARCH 430: Integrated Building Design Studio: fall 2013-2014, enrollment 5 to 9

This course develops a comprehensive design process with focus on systems design and integration of a mixed-use building, issues of technology, ecology and energy. Exercises focus on the design of building systems and components, building structural design, building codes, design for safety in buildings, architectural expression, integration strategies and applications involving the mechanical, electrical, energy, and building management systems.

ARCH 430: Integrated Building Design Studio: fall 2013, enrollment 9

This course develops a comprehensive design process with focus on systems design and integration of a mixed-use building, issues of technology, ecology and energy. Exercises focus on the design of building systems and components, building structural design, building codes, design for safety in buildings, architectural expression, integration strategies and applications involving the mechanical, electrical, energy, and building management systems.

ARCH 315: Building Construction Systems: spring 2014 - fall 2014, enrollment 9

The course introduces students to common building materials and their properties, and construction processes ranging from site planning to construction. Construction technology, systems, methods and techniques are selected with emphasis on local applications and practice. Simple structural systems, construction methods, and building components are covered, including foundations, structural components, wall systems, and floor and roof systems.

The course materials are delivered through a series of lectures coupled with group

discussions, readings, hands-on practice assignments, and on-line blackboard access for course documents and information.

Note: class fall 2014 was developed using iBook author, Chalkup, and iTunes U

ARCH 335: Intermediate Building Design Studio: Spring 2014, Fall 2014, enrollment 9

This course aims at developing students' analytical skills and awareness of the building physical, social and cultural contexts. Students are introduced to the engineering design process, as well as assessment and application of alternative structural, mechanical and electrical systems. Studio activities include simulations of building environments, and advanced architectural presentation techniques.

ARCH 585: Graduation Project I: Spring 2014, Fall2014, enrollment 4

This course aims at graduation project selection based on the real needs of society. Initiation of an engineering design process through research and design methods, literature review, data gathering, analysis of potential sites and similar existing buildings as well as assessment of alternative building engineering solutions to the design problem. Emphasis is on physical and social documentation, visual surveying, users' needs, generating alternative solutions, and evaluation in preparation for graduation project II course.

ARCH 590: Graduation Project II: Fall2014, enrollment 4

This course aims at developing the final graduation project design based on initial development previously prepared during Graduation Project I. Final detailed design solutions of the project are prepared along with an architectural model and report, including sustainable construction systems and components, structural elements, selection of mechanical and electrical systems, cost estimation and project planning and scheduling.

STUDENT ADVISING

Undergraduate Students

Shaikha Al Meqbaali (2011)

Mona El-Hallak (2012)

Hind Kolthoum (2013)

Aisha Al Kindi (2013)

Asalah El Naffar (2013)

Batoul Hittini (2013)

Omar Najjar (2013)

Industrial Training

Asmaa Dhanhani (2010), Al Hon Consulting Engineering

Basma Ahmed (2009), Al Fara'a Group

Aysha Al Muhairi (2010), Al Ain City Municipality

STUDENT COMMITTEES

Undergraduates Students

Gradation Project Spring (2014), Civil and Environmental Engineering Department

Naila Mohamed

Fatima Abdul Razzaq Khouri

Sumayya Mohammed Alhebsi

Mariam Salem Mohammed Al Dhaheri

Gradation Project Spring (2014), Architectural Engineering Department

Maryam Saeed Obaid Daen

Shaikha Salmeen Al Alawi

Sara Saeed Saif Al Reyami

Gradation Project Spring (2014), Architectural Engineering Department

Fakhra Mubarak Mohammed Barman

Noura Hareb Ali Obaid

Kathya Khalifa Mubarak Saif

DEPARTMENT COMMITTEES

Design Committee: Fall 2013 to present

This committee is in charge of develop and review all aspects related to the design courses including but not limited to; courses objectives, deliverables, syllabus, materials, and teaching procedure.

Accreditation Board for Engineering and Technology (ABET) Committee: Fall 2014 to present

Develop and prepare ABET Criterion number 3: The Department Program Mission and Educational Objectives.

Student Society Advisor: Fall 2014

Industry Liaison: Fall 2014

SERVICES

University - Architectural Engineering Department:

1. *Represent the Architectural Engineering Department at:*

- United Arab Emirates University: Freshman orientation day, Fall 2014.
- United Arab Emirates University: College of Engineering open day: Spring 2014.

2. *Media Specialist, Spring 2014 to present.*
 - In charge of design, develop, and approve department media and graphics related works.

University - School of Engineering:

1. *Lead United Arab Emirates University Ethics Team at the IEEE Ethics competition 2014 at Khalifa University, Sharjah, UAE.*
 - Achieve 4th place. Total of 15 team from 8 different schools nationwide

Service (Professional)

- Special Awards Judge in Renewable Energy – Intel International Science and Engineering Fair (Intel ISEF) 2012 Pittsburgh, USA.

PEER REVIEW SERVICE

The International Journal of Construction Management.

The Journal of Construction Engineering and Project Management.

PROFESSIONAL EXPERIENCE

2003 to 2006: Architect, PARSONS Ltd., Industrial Yanbu, Saudi Arabia

Prepared a design works for small projects including residential and public facilities.

Lecturing fresh graduates the Fire Code, International Building Code and Saudi Building Code.

Reviewed materials specifications.

Reviewed private projects & initiate permissions.

Performed site inspection and applying quality.

Prepared cost estimates.

Prepared and chair meetings for engineers in training and their mentors.

Performed value engineering on three different projects including; Royal commission head quarter in Riyadh, boys' primary school, and Yanbu technical institute

2002 to 2003 Architect, Harasani Architects, Jeddah, Saudi Arabia

Contributed to the design of the Saudi Commission for Tourism & Antiquities headquarter in Riyadh, Saudi Arabia.

Prepared design works for residential and commercial projects.

Prepared cost estimates, construction plans, details, and specifications.

PROFESSIONAL DEVELOPMENT WORKSHOPS

Two-Day Teaching Workshop January 2013, University of Pittsburgh, Pittsburgh, PA.

Becoming a More Effective Research Mentor 2012, University of Pittsburgh, PA.

5-hour iBooks Author Challanage, the submitted work won the iBook Excellence Award, 2014, United Arab Emirates University, UAE.

Chalkup workshop: streamlined tool for assignments, discussion boards, flashcards and materials distribution, 2014, United Arab Emirates University, UAE