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### **Personal Information**

Birthday – July 27<sup>th</sup>, 1982,      Birthplace – Cairo, Egypt,      Citizenship – Egyptian.

### **Languages**

**Arabic** and **English** (First language mastery)

**Persian** (moderate comprehension)

**French** and **Spanish** (took courses out of interest in languages)

### **Education**

**Ph.D.**, Electrical and Computer Engineering, 2011

Boise State University, Boise, Idaho, USA

Dissertation title: “Novel Parameter Identification Techniques for Large Synchronous Generators”

Major emphasis in Signals and Systems: Control theory, Parameter Estimation.

Minor emphasis in Computer Engineering: Embedded Systems, Digital Hardware Design and System Verification.

**M.Sc.**, Electrical Engineering, 2007

Kuwait University, Kuwait

Thesis title: “From Chaos to Order, and Vice Versa: An Instantaneous Lyapunov Exponent Targeting Control Algorithm”

Emphasis on Control Theory and Electronics.

**B.Sc.**, Electrical Engineering, 2004

Kuwait University, Kuwait

Graduation Project: “The Chess Playing Robot”

Capstone Design Project (group project): “Liquid Level Management System”

### **Affiliation**

IEEE, and IEEE-Control Systems Society – Member since 2004.

## Research Activity

Areas of research: Nonlinear Control Theory and Applications; Chaos control; Sliding-mode control; Lyapunov stability; Nonlinear least-squares estimation theory; Large synchronous generator and induction motor parameter estimation; electric machine dynamics and control.

## Research Initiatives

➤ Founder and coordinator of Alfaisal Renewable Energy Group **AREG**. This is a multidisciplinary group that works in three dimensions of research, teaching, and spreading the know-how towards developing the field of renewable energy systems.

## Publications

### Chapters in Edited Books

1. John Chiasson, and **Ahmed Oteafy**, *Elimination Theory for Nonlinear Parameter Estimation*, in: Jean Lévine, Philippe Müllhaupt (eds.), *Advances in the Theory of Control, Signals and Systems with Physical Modeling*, Springer-Verlag, Berlin/Heidelberg, pp. 65-75, 2011.

### Journals

1. Saleh Alshamali, Mohamed Zribi, and **Ahmed Oteafy**, "Sliding Mode Controllers for the Benchmark Bioreactor System," *Kuwait Journal of Science & Engineering*, vol. 38, issue 1, 2011.
2. **Ahmed Oteafy**, and John Chiasson, "A Study of the Lyapunov Stability of an Open-Loop Induction Machine," *IEEE Transactions on Control Systems Technology*, vol. 18, issue 6, pp. 1469-1476, Nov. 2010.
3. Mohamed Zribi, **Ahmed Oteafy**, and Nejjib Smaoui, "Controlling chaos in the permanent magnet synchronous motor," *Chaos, Solitons and Fractals*, vol. 41, issue 3, pp. 1266-1276, Aug. 2009.
4. **Ahmed Oteafy**, Mohamed Zribi, and Nejjib Smaoui, "Chaos Control through an Instantaneous Lyapunov Exponents Targeting Control Algorithm," *International Journal of Bifurcation and Chaos*, vol. 18, no. 8, pp. 2319-2344, August 2008.

### Conferences

1. **Ahmed Oteafy**, John Chiasson, and Marc Bodson, "Online identification of the rotor time constant of an induction machine," *Proceedings of the American Control Conference 2009*, pp.4373-4378, 10-12 June 2009.
2. **Ahmed Oteafy**, and John Chiasson, "Lyapunov stability of an open-loop induction machine," *Proceedings of the American Control Conference 2009*, pp.3452-3457, 10-12 June 2009.
3. Mohamed Zribi, and **Ahmed Oteafy**, "Control of a Bioreactor Using Static and Dynamic Sliding Mode Controllers," *Proceedings of the 3rd IEEE-GCC*, Bahrain, March 2006.

### Poster Presentations

1. Said Ahmed-Zaid, Ahmed Oteafy, and John Chiasson, "New Power Lab Developments at Boise State University," *Poster presentation at the University of Minnesota 2011 DOE Workshop*, Minneapolis, August 2011.

## Postdoctoral Research – Summer 2011

Principal Investigator: Prof. Said Ahmed-Zaid

As a postdoctoral research associate my main task during this summer research project was to review the DSP-based Electric Drives lab developed by the ECE department at the University of Minnesota. My other tasks included training two graduate students to further pursue this research project. The resulting recommendations were presented at the DOE consortium workshop, University of Minnesota, Minneapolis, August 2011.

### Ph.D. Dissertation

Ahmed Oteafy, *Novel Parameter Identification Techniques for Large Synchronous Generators*, Ph.D. Dissertation, Electrical and Computer Engineering Department, Boise State University, 2011.  
Supervisor: Prof. John N. Chiasson, Co-Supervisor: Prof. Said Ahmed-Zaid.  
External Examiner: Prof. George C. Verghese, EECS department, MIT.

### M.Sc. Thesis

Ahmed Oteafy, *From Chaos to Order, and Vice Versa: An Instantaneous Lyapunov Exponent Targeting Control Algorithm*, M.Sc. Thesis, Electrical Engineering Department, Kuwait University, 2007.  
Supervisor: Prof. Mohamed Zribi, Co-Supervisor: Prof. Nejib Smaoui.

### Project Reports

1. Ahmed Oteafy, “The Chess Playing Robot,” Graduation Project Course, EE Department, Kuwait University, 2004.  
Supervisor: Prof. Mohamed Zribi.
2. Ahmed Oteafy, and Ahmed Al-Najar, “Liquid Level Management System,” Capstone Project Course, EE Department, Kuwait University, 2004.  
Supervisor: Prof. Mohamed Fahim Hassan, Assisted by: Eng. Nasser Sidaoui.

### Research Grants

- Alfaisal-Internal Research Grant 2013.  
Title: Parameter Identification Techniques for Electric Machines  
Principal Investigator: Dr. Ahmed Oteafy,  
Dates: December 2012 (awarded), January to December 2013 (duration)  
Agency: Alfaisal University  
Amount: 49,000 SAR

### Conference Activities

Technical Program Committee Member:

- 2013 CyPhy 2013: 3<sup>rd</sup> Workshop on Design, Modeling and Evaluation of Cyber Physical Systems, Philadelphia, Pennsylvania, USA

Peer Reviewer:

- The 48<sup>th</sup> IEEE Conference on Decision and Control 2009, Shanghai, China.
- The 2011 IEEE Multi-Conference on Systems and Control, Denver, Colorado, USA.
- The 2012 IEEE Multi-Conference on Systems and Control, Dubrovnik, Croatia.
- The 2014 American Control Conference, Portland, Oregon, USA.

Session Chair:

- **2009 American Control Conference, St. Louis, Missouri, USA**
  - Co-chaired the Reduced Order Modeling session.
- **2009 Undergraduate Conference at Boise State University**
  - Chaired a Podium Presentations session (ECE and MATH department presentations)
  - Chaired a Media Presentations session on the Special Olympics.

### Teaching Experience

Alfaisal University

**Assistant Professor**, College of Engineering

Courses Taught:

*Fall 2013*

EE490 – Capstone Design Project

EE420 – Power Electronics

EE428 – Modern Control Theory

*Spring 2013*

EE426 – Renewable Energy

EE405 – Electrical Energy Conversion

*Fall 2012*

EE420 – Power Electronics

EE405 – Electric Power Systems

GE203 – Economics and Management for Engineers

Boise State University

*Fall 2010*

**Adjunct Professor**, College of Engineering

Teaching ENGR 120 – Introduction to Engineering

A freshman-level course taught to all college of engineering majors, introducing the students to the different fields of engineering, including, electrical, mechanical, civil, and material science engineering.

*Spring 2010*

**Teaching Fellow**, ECE Department, College of Engineering

Teaching ECE/ME 360 – System Modeling and Control

This course covers mathematical modeling of physical systems and control theory. It is complemented with a lab module where students apply the modeling and control theory to the control of a DC motor driven linear cart.

*Fall 2009*

**Teaching Fellow**, ECE Department, College of Engineering

Teaching Assistant for ECE/ME 360 – System Modeling and Control

*Spring 2009*

**Micron Ph.D. Fellow**, ECE Department, College of Engineering

Volunteer Teaching Assistant for ECE/ME 461/561 –Control Systems

Kuwait University

*Fall 2006*

**Graduate Teaching Assistant**, EE Department, College of Engineering and Petroleum

Lab Instructor for the EE334 – Electronics II Lab course

*Fall 2004, Spring 2005, Fall 2005, & Spring 2006*

**Graduate Teaching Assistant**, EE Department, College of Engineering and Petroleum  
Lab Instructor for the EE207 – Electrical Engineering Fundamentals Lab course

*Spring 2005*

Matlab® and Simulink® volunteer tutor for the IEEE-Student chapter at KU.

### **Teaching Workshops**

As part of my commitment to developing my teaching skills and methodology I developed a teaching workshop at Alfaisal University in Spring 2013.

Earlier, I participated in the following workshops offered by the Center for Teaching and Learning (CTL) at Boise State University:

- Using Midterm Assessment Process (MAP) to support student learning (September 29<sup>th</sup>, 2009)
- Active Learning (September 30<sup>th</sup>, 2009)
- Introduction to Course Design (January 7<sup>th</sup>, 2010)
- Teacher Talk: Best Practices for Lectures that Work ( March 5<sup>th</sup>, 2010)

These were offered by the Center for Teaching and Learning (CTL) at Boise State University.

### **Other Activities**

- Committee chair or member at Alfaisal University:
  1. Teaching and Learning Committee – College of Engineering
  2. Graduate Studies Committee – ESE department
  3. Social and Public Seminar Committee – ESE department
  4. Research Committee – ESE department
  5. Scientific Committee – ESE department
  6. Library Committee – ESE department
  7. Laboratories and Facilities Committee – ESE department
  8. Recruitment Committee – ESE department
  9. Hiring Committee – ESE department

- Spring 2010 Poster Presentation at “Boise State Day at Capitol”:

Met with Idaho state legislators to present the Importance of the research work at BSU.

### **Summary of Achievements**

**2010 – 2011 College of Engineering Dean’s Award for Outstanding Graduate Student–  
Boise State University (For Outstanding Scholarship and Graduate Research)**

**2009 - 2010 Teaching Fellowship – Boise State University**

**2007 - 2009 Micron PhD Fellowship – Boise State University**

**2007 - 2009 Graduate Residential Scholarship Program Fellowship – Boise State  
University**

**2004 - 2007 Graduate Teaching Assistantship – Kuwait University**

**1999 - 2004 Received the Minister of Higher Education’s Grant to study at Kuwait  
University (awarded each semester to 25 non-Kuwaiti high-school graduates in the country).**