

Hussein Saad

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PERSONAL INFORMATION

- Date of Birth: September 16, 1988
- Citizenship: Egypt
- Gender: Male
- Marital status: Single

EDUCATION

- **PhD in Electrical Engineering** **2014-present**
 University of Texas at Dallas
 Advisors: Prof. Aria Nosratinia
- **M.Sc. in Communication and Information Technology** **2010-2013**
 Nile University
 Cumulative GPA: 3.79
 Advisors: Prof. Amr Mohamed and Prof. Tamer Elbatt
- **B.Sc. in Communication Engineering** **2005-2010**
 German University in Cairo
 Cumulative GPA: 1.17 - Excellent with honor
 Graduation Project: Online Event Segmentation From Continuous Speech Using GMM Supervectors and Support Vector Machines.
 Advisor: Dr. Friedhelm Schwenker, University of Ulm, Germany

WORKING EXPERIENCE

- **System Design Engineer at Varkon Semiconductors** **May 2013- July 2014**
 - Design of a Digital Phase Locked Loop (floating and fixed point) that is used for clock synchronization and recovery.
 - Design of a Digital Farrow Filter (floating and fixed point).

RESEARCH EXPERIENCE

- **Graduate Research Assistant, Electrical Engineering Department, University of Texas at Dallas**
September 2014 - Present.
 - 1- Conducting research on Information theory and its applications in Data science and big data.

- **Qatar University: February-August 2011 and February-August 2012.**
- **Nile University – Wireless Intelligent Network Center (WINC): September-January 2011 and September 2012 - April 2013.**

Research Assistant: Conducting research in problems related to wireless communication systems such as:

- 1- Interference mitigation in femtocell networks.
- 2- Utilizing learning theory such as Reinforcement learning to perform resource allocation in femtocell networks.

RESEARCH INTERESTS

- Information theory.
- Data science.
- Resource allocation in heterogeneous networks (Specially femtocell networks).
- Machine learning (specially Reinforcement learning).

PUBLICATIONS

- **Conference Papers:**
 - H. Saad, A. Mohamed, and T. ElBatt, "Distributed Cooperative Q-learning for Power Allocation in Cognitive Femtocell Networks," in Proceedings of the IEEE 76th Vehicular Technology Conference, Sep. 2012.
 - H. Saad, A. Mohamed, and T. ElBatt, "A Cooperative Q-learning Approach for Real-time Power Allocation in Femtocell Networks," in Proceedings of the IEEE 77th Vehicular Technology Conference, Sep. 2013.
 - H. Saad, A. Mohamed, and T. ElBatt, "A Cooperative Q-learning Approach for Joint Subcarrier and Power Allocation in Femtocell Networks," accepted in the IEEE Wireless Communications And Networking Conference, April, 2014.
 - A. El Shafie, T. Khattab, H. Saad, and A. Mohamed, "Optimal Cooperative Cognitive Relaying and Spectrum Access for an Energy Harvesting Cognitive Radio: Reinforcement Learning Approach," in Proceedings of the IEEE International Conference on Computing, Networking and Communications, Feb. 2015.
- **Journal Papers:**
 - H. Saad, A. Mohamed, and T. ElBatt, "Cooperative Q-learning Techniques for Distributed Online Power Allocation in Femtocell Networks", accepted in Wiley Wireless Communications and Mobile Computing Journal, April, 2013.

SCHOLARSHIPS AND AWARDS

- B.Sc. scholar ship from the German University in 2005-2010.
- Scholarship from the German Academic Exchange Service (DAAD) to do my B.Sc. project for in Ulm, Germany March-September 2009.
- M.Sc. Scholarship in Wireless Technology program from Nile University 2010- present.

- Research Assistantship in Qatar University.
- Research Assistantship in the University of Texas at Dallas.

SKILLS

- **Programming:**
 - MATLAB (Excellent).
 - Java (Excellent).
 - C (Good).
 - VHDL (Basic).
 - FPGA (Basic).
- **Networking:**
 - Certified CCNA.
- **Applications:**
 - LaTeX.
 - Microsoft Office.
 - Microsoft Visio.

LANGUAGES

- Arabic: Native tongue.
- English: Perfect command.
- German: basic