

Ahmed Ahmadein

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Department of Electrical Engineering
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EDUCATION

Ph.D. Candidate, Electrical Engineering, University of California, Davis. Degree expected Summer 2014

Dissertation: Content aware resource allocation
Advisor: Prof. Dipak Ghosal

Master of Science, Wireless Communications, Nile University, Aug. 2010. 3.98/4.0 GPA.
Dissertation: Power and transmission time control in cognitive radio networks based on sensing outcome or primary feedback

Advisor: Prof. Ahmed K. Sultan

Bachelor of Science, Electrical Engineering, Cairo University, May 2008. 3.92/4.0 GPA.
Graduation Project: Frequency and Timing Synchronization Matlab Simulation and Verilog Implementation of Mobile WiMAX (802.16e)

Advisors: Prof. Magdi Fikri, Prof. Hossam Fahmy and Prof. Mahmoud Hamed

RESEARCH EXPERIENCE

Research Assistant at UC Davis, Jan. 2011 – Now

- Content aware networks in LTE
- Femtocell power control
- Cognitive radio network power control

Research Assistant at Wireless Intelligent Network Center (WINC), Nile University, Oct. 2008 – Sep. 2010

MSC Research

Power and Transmission Duration Control for Un-Slotted Cognitive Radio Networks

Other Research projects

- Cooperative Communication, amplify and forward relaying systems
- Compressive sensing
- OFDM physical layer with MATLAB simulation and implementation on Wireless Open Access Research Platform (WARP) kits, implementing and modifying algorithms for synchronization and channel estimation with application to LTE and Mobile WiMAX

TEACHING EXPERIENCE

Teaching Assistant, University of California, Davis. Jan. 2011 – now.

Responsible for MATLAB labs teaching, examinations and evaluations

Instructor/Department Head, JELECOM Panasonic training center and Cairo University training center May 2006 – Sep. 2010

Taught advanced intensive courses and labs in Engineering including courses in GSM, CDMA, UMTS, WiMAX, MATLAB, Micro Controller [PIC], C++, GMAT and GRE

INDUSTRIAL TRAINING EXPERIENCE

- Polaris Wireless research intern, Jun. 2013 – Jan 2014.
Developing algorithms to identify the state of cell phone (Motion/indoor) using only wireless signal
- VODAFONE, GSM and 3G training, Aug. 2007- Sep. 2007

- National Telecom Regulatory Authority (NTRA) training, Jul. 2007 – Sep. 2007
- Egyptian Radio and Television Union (ERTU) training on TV and radio broadcasting, Jul. 2006 – Sep. 2006

PUBLICATIONS

Ahmed Ahmedin, Kartik Pandit, Dipak Ghosal, and Amitabha Ghosh “Exploiting Scalable Video Coding for Content Aware Video Delivery over LTE,” *Proceedings of the 15th International Conference on Distributed Computing and Networking (ICDCN)*, pp. 423--437, Coimbatore, India, January 2014..

Ahmed Ahmedin, Kartik Pandit, Dipak Ghosal, and Amitabha Ghosh, “Content and Buffer Aware Scheduling for Video Delivery over LTE,” *ACM CoNEXT 2013 Student Workshop, Santa Barbara, December, 2013*.

Ahmed Ahmedin, Ahmed R. Elsherif, Xin Liu, Zhi Ding, J. Hamalainen, and R. Wichman “Macrocell Resource Adaptation for Improved Femtocell Coexistence and Interference Management,” *World Congress on Multimedia and Computer Science (WCMCS), Hammamet, Tunisia, october 2013*.

Ahmed R. Elsherif, **Ahmed Ahmedin**, Zhi Ding and Xin Liu, “Adaptive Precoding for Femtocell Interference Mitigation,” *2012 IEEE International Conference on Communications (ICC)*, pp.4315,4320, 10-15 June 2012.

Marwa Ali, **Ahmed Ahmedin**, Ahmed K. Sultan and Mohamed Nafie, “Power and Transmission Duration Control for Un-Slotted Cognitive Radio Networks,” *World Congress on Multimedia and Computer Science (WCMCS), Hammamet, Tunisia, october 2013*..

Ahmed Ahmedin, Marwa Ali and Ahmed K. Sultan “Simplification in Integral carrier Frequency Offset Estimation Based on Joint Detection Algorithm for WiMAX 802.16e,” *Proc. IEEE National Radio Science Conference (NRSC)*, March 2009, Cairo, Egypt, volume 26, part 2, pp. C39(1-6).

TECHNICAL SKILLS

- VHDL
- Verilog
- Basics of VLSI design
- MATLAB and SIMULINK
- C++
- Network & Socket programming using C++
- PIC Microcontroller using Assembly & C++
- Socket programming by C++

SCHOLARSHIPS

- UC Davis GSR, 2011-2014
- Nile University, full MSC scholarship, 2008-2010
- Cairo University, Engineering Scholarship - Top 0.02% of Class, 2003-2008

HONORS AND AWARDS

- Received INTEL first prize for best 802.16e project, Sep. 2008
- Awarded 3 appreciation certificates from Cairo University due to my scientific activity in the ESSSE and CECE, 2007