

# Manal Ezzat ElTanab

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**EDUCATION** *M.Sc.: Cairo University, Giza, Egypt* 2012–Present  
Department of Electronics and Electrical Communications Engineering  
GPA: 3.8  
Thesis in Wireless Communications “Opportunistic Splitting Algorithm in Cognitive Radio Networks”

*B.Sc.: Cairo University, Giza, Egypt* 2007–2012  
Department of Electronics and Electrical Communications Engineering  
Grade: Distinction with Honor (90.99%)  
Rank: 3<sup>rd</sup>/310 students  
Graduation Project: Educating illiterate people using mobile sets, Grade: Distinction

*High School: Om El Abtal Secondary School, Giza, Egypt* 2004-2007  
Grade: 407.5/410 (99.4%)  
Rank: 10<sup>th</sup> of the Republic of Egypt

**ACADEMIC POSITIONS** *Teaching and Research Assistant* Sep 2012 - Present  
Department of Electronics and Electrical Communications Engineering, Cairo University, Giza, Egypt.

**RESEARCH EXPERIENCE** *Research Assistant* Feb 2013 - Present  
Center for Wireless Studies(CWS), Cairo University, Egypt

- Conducting a research in the field of wireless communications
  - Developing a distributed scheduling algorithm for underlay Cognitive Radio Networks (CRN) based on the conventional opportunistic splitting algorithm.
- Implementing the CRN using Vienna LTE downlink system level simulator
  - Building a secondary system coexists with the original LTE system which is considered as the primary one.

The research is funded from Qatar National Research Fund (QNRF) “Cognitive Heterogeneous Networks: Interference-aware Resource-efficient Design and Performance Analysis ” project.

**PUBLICATIONS** Manal Ezzat, Yasmine Fahmy and Mohamed M. Khairy “*Opportunistic Splitting Algorithm for Underlay Cognitive Radio Networks*” - ICUFN 2014.

Manal Ezzat, Yasmine Fahmy and Ahmed S. Ibrahim “*Opportunistic Splitting Algorithm for Cognitive Radio Networks with Heterogeneous Users*” - ICCS 2014.

<b>TEACHING EXPERIENCE</b>	<p>Cairo University, Giza, Egypt</p> <p><i>Teaching Assistant</i> –Electric Circuits <span style="float: right;">Fall 2013</span></p> <ul style="list-style-type: none"> <li>• Instructing classes, meeting with students upon request, collaborating on exams and assignments development, and grading reports.</li> </ul> <p><i>Teaching Assistant</i> –Logic Design and Electronics <span style="float: right;">Spring 2013</span></p> <ul style="list-style-type: none"> <li>• Instructing classes, meeting with students upon request.</li> </ul> <p><i>Teaching Assistant</i> –Digital Communications III <span style="float: right;">Fall 2012</span></p> <ul style="list-style-type: none"> <li>• Instructing classes, meeting with students upon request, collaborating on assignments development, and grading all written work, include Midterm exam &amp; simulation reports papers.</li> </ul> <p>Attending “Presentation Skills” training course at Faculty and Leadership Development Center, Cairo University <span style="float: right;">Jun 2013</span></p>
<b>RELATED INTERNSHIPS</b>	<p>Summer Trainee at Security Meter <span style="float: right;">Aug 2011</span></p> <ul style="list-style-type: none"> <li>• Programming under Linux course.</li> </ul> <p>Summer Trainee at Intel Research Lab, Egypt <span style="float: right;">July - Aug 2011</span></p> <ul style="list-style-type: none"> <li>• LTE training, Implementation of Heterogeneous Cellular Networks (Femto Cells) using Vienna LTE downlink System Level Simulator under QoS constraints.</li> </ul> <p>Summer Trainee at Vodafone Egypt <span style="float: right;">July 2010</span></p> <ul style="list-style-type: none"> <li>• Sales sector</li> </ul> <p>Communication and Electronics Club for Engineers (CECE) internship, Cairo University <span style="float: right;">Aug 2009</span></p>
<b>AWARDS</b>	<p>Teaching and Research Assistant Fellowships, Cairo University <span style="float: right;">Sep 2012 - Present</span></p> <p>Schlumberger excellence grant <span style="float: right;">2011-2012</span></p> <p>Ideal Student Award Finalist, Faculty of Engineering, Cairo University <span style="float: right;">2010</span></p> <p>Excellence Grant, M.F.Khamis Foundation <span style="float: right;">2007-2012</span></p> <p>University Scholarship, Cairo University <span style="float: right;">2007-2012</span></p>
<b>ADDITIONAL KNOWLEDGE &amp; SKILLS</b>	<ul style="list-style-type: none"> <li>• MATLAB and Simulink</li> <li>• Programming with java, Android</li> <li>• Programming with C, C++</li> <li>• Programming with Microcontrollers &amp; PLC</li> <li>• Programming under Linux</li> <li>• Digital design using Verilog</li> <li>• Simulation tools (pspice,proteus)</li> </ul>
<b>LEADERSHIP ACTIVITIES</b>	<p>Member in publicity team in Utopia, an organization which aims to increase the awareness of the public and teach ethics to students. <span style="float: right;">2010-2011</span></p> <p>Member in the charitable group Resala, involved in various volunteer work efforts.</p>

Member in Linux workshop in Security Meter company

Aug 2012

- Participating in instructing classes for students at Cairo University and Ain Shams University.

**LANGUAGES** Arabic: Native language  
English: Very Good  
German: Fair

**PERSONAL INFORMATION** Date of birth: November 11, 1990  
Place of birth: Cairo, Egypt  
Nationality: Egyptian

**REFEREES** *Prof. Mohamed Khairy*  
Department of Electronics and Electrical Communications Engineering, Cairo University, Egypt  
Ph.D.: Electrical and Computer Engineering, University of Maryland (USA)  
E-mail: mkhairy@ieee.org

*Dr. Ahmed Salah Ibrahim*  
Department of Electronics and Electrical Communications Engineering, Cairo University, Egypt  
Ph.D.: Electrical and Computer Engineering, University of Maryland (USA)  
E-mail: asibrahim@gmail.com, ahmed.s.ibrahim@intel.com

*Dr. Yasmine Fahmy*  
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