

## Mehrtash Mehrabi

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Digital Communication Lab  
Department of Electrical engineering  
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**OBJECTIVE** Continuing my academic education in graduate levels in a great and reputable university which provide me an opportunity to grow as a brilliant researcher and satisfy my strong desire to learn and demonstrate my creativity.

**EDUCATION**

- **B.Sc. in Electrical Engineering (Communications)** Fall 2011 - now  
Amirkabir University of technology (Tehran Polytechnic)  
Overall GPA Until now: 17.39/20 (in WES format: 3.75/4) via 126 credits  
Overall GPA in last year: 18.12/20 (in WES format: 4/4) via 48 credits  
Supervisor: Dr. Hassan Aghaeinia
- **Diploma in Mathematics and Physics Discipline** Fall 2007 - Spring 2011  
Mofid 1 High School, Tehran, Iran  
Overall GPA: 19.45/20

**RESEARCH INTERESTS**

- Digital & Wireless Communication Systems and Cognitive Networks
- Coding and Information Theory
- Compressive Sensing & Sparse Signal Processing
- Statistical & Array Signal Processing
- Digital Signal Processing
- Image Processing & Pattern Recognition

**HONORS AND AWARDS**

- Ranked within top **15%** among more than **120** undergraduate students in Electrical Engineering Department, Amirkabir University of Technology. *Sep-2014*
- Ranked second in **Digital Communication** course among communication students. *May-2014*
- Semi-finalist in national **Electrical Engineering Olympiad** among the Electrical Engineering students of Iran. *Feb-2014*
- Identified as **an Exceptional Talent** in Amirkabir University of Technology. *Sep-2013*
- Identified as **an elite student** by **NOET (National - Organization - for - Educational - Testing)** due to obtaining high rank among the participants of nationwide university entrance exam. *Sep-2011*
- Ranked within top **0.15%** among more than **280,000** students in the nationwide university entrance exam (Konkoor) for B.Sc. degree. *Aug-2011*
- Ranked within top **0.01% (13)** in National Azad university entrance exam for B.Sc. degree. *Aug-2011*
- Semi-finalist in **Computer National Olympiad competitions**. *Mar-2010*

	<ul style="list-style-type: none"> <li>• Semi-finalist in <b>Mathematics National Olympiad competitions</b>. <i>Mar-2010</i></li> <li>• Selected project of Mofid's innovation festival and nominated for <b>kharazmi festival</b>. <i>Apr-2009</i></li> </ul>
<b>PUBLICATION</b>	<ul style="list-style-type: none"> <li>• <b>"Reconstruction methods for compressed sensing MRI"</b>, M.Mehrabi, Under supervision of Dr. H.Aghaeinia, 2015.</li> </ul>
<b>RESEARCH EXPERIENCES</b>	<ul style="list-style-type: none"> <li>• <b>"Reconstruction of Distorted Images by Neural Networks"</b> <i>Fall 2014</i> Amirkabir University of Technology (Tehran Polytechnic) Department of Electrical Engineering Under Supervision of Dr. F.Abdollahi</li> <li>• <b>"Redundancy reducing coding for image"</b> <i>Summer 2014</i> <b>Digital Communication Research Lab</b> Amirkabir University of Technology (Tehran Polytechnic) Department of Electrical Engineering Summer Internship Program</li> <li>• <b>"Designing &amp; Simulating Communication Transceiver for Sound Propagation with Hamming Code in MATLAB"</b> <i>Spring 2014</i> <b>Digital Communication Research Lab</b> Amirkabir University of Technology (Tehran Polytechnic) Department of Electrical Engineering</li> <li>• <b>"Designing &amp; Simulating Teleoperation Systems Based on Haptic Feedback Using Two Channels in MATLAB"</b>; Under supervision of Dr. H.A.Talebi <i>Winter 2014</i></li> </ul>
<b>ACADEMIC COURSE PROJECTS</b>	<ul style="list-style-type: none"> <li>• <b>"Designing &amp; Simulating Communication Transceiver for Sound Propagation with Hamming Code in MATLAB"</b>, final project of "Communication II" course. <i>Spring 2014</i></li> <li>• <b>"Analysis of Human brain project (HBP)"</b>, final Project report of "Research and Writing report methods" course. <i>Spring 2014</i></li> <li>• <b>"Design and Implementation of LNA"</b>, final Project of "Communication Circuits" course. <i>Spring 2014</i></li> <li>• <b>"Designing &amp; Simulating Teleoperation Systems Based on Haptic Feedback Using Two Channels in MATLAB"</b>, final project report for "Linear Control Systems" course. <i>Winter 2014</i></li> <li>• <b>"Gauss-Seidel Load Flow in MATLAB"</b>, final Project report of "Power System's Analysis" course. <i>Fall 2013</i></li> <li>• <b>"Design and Implementation of Hartley and Colpitts Oscillators Using PSPICE"</b>, As part of projects of "Electronics III" course. <i>Fall 2013</i></li> <li>• <b>"Design the Scientific Calculator by MATLAB Programming"</b>, as part of projects of "MATLAB programming" course. <i>Spring 2012</i></li> <li>• <b>"Design DOT-LINE game by C++ Programming"</b>, final project of "Computer Programming" course. <i>Fall 2011</i></li> </ul>
<b>TEACHING EXPERIENCE</b>	<ul style="list-style-type: none"> <li>• <b>Teaching Assistant:</b> "Electronics III" <i>Sep-2014 - Jan-2015</i> Instructor: Dr. Hassan Kaatuzian The program was in the Electrical Engineering Department of Amirkabir University of Technology.</li> </ul>

<b>PRESENTATIONS</b>	<ul style="list-style-type: none"> <li>• <b>“Error-Control Coding by MATLAB”</b>, Applied Mathematics and Computer Science Department, Amirkabir University of Technology <i>Dec-2014</i></li> <li>• “Computational Intelligence” course: <b>“Reconstruction of Distorted Images by Neural Networks”</b>, Electrical Engineering Department, Amirkabir University of Technology <i>Jan-2015</i></li> <li>• “Linear Control Systems” course: <b>“Designing &amp; Simulating Teleoperation Systems Based on Haptic Feedback Using Two Channels in MATLAB”</b>, Electrical Engineering Department, Amirkabir University of Technology <i>Jan-2014</i></li> </ul>
<b>SELECTED COURSES</b>	<ul style="list-style-type: none"> <li>• <i>Digital Communication: 18.5/20 (Ranked second)</i></li> <li>• <i>Probability and Statistics II: 19/20 (Ranked third)</i></li> <li>• <i>Analog Communication: 17/20 (Ranked fifth)</i></li> <li>• <i>Computer Programming: 20/20 (Ranked first)</i></li> </ul>
<b>COMPUTER SKILLS</b>	<ul style="list-style-type: none"> <li>• Programming &amp; Scripting: C/C++, MATLAB, LaTeX</li> <li>• Technical Simulators: Simulink, ADS, Proteous, OrCAD</li> <li>• Statistical: MATLAB (Octave)</li> <li>• Web Design: HTML, Wordpress</li> <li>• General Software: Microsoft Office (Word, Excel, Power point, Publisher), Adobe Photoshop</li> <li>• Operating Systems: Microsoft Windows, Linux (Ubuntu)</li> </ul>
<b>ASSOCIATIVE EXPERIENCES</b>	<ul style="list-style-type: none"> <li>• Responsible for Organizing Conferences and Workshops in Electrical Engineering Department <i>2013-14</i></li> </ul>
<b>MEMBERSHIPS</b>	<ul style="list-style-type: none"> <li>• IEEE Student Member, Membership number: 92585373 <i>2013 - now</i></li> <li>• Scientific Association of Electrical Engineering Department Member <i>2013-14</i></li> </ul>
<b>LANGUAGES</b>	<ul style="list-style-type: none"> <li>• Persian: Native</li> <li>• English: Fluent  IELTS Overall Band Score: 6.5  Speaking: 7      Writing: 6.5      Reading: 6.5      Listening: 6</li> </ul>
<b>HOBBIES</b>	Playing Piano, Listen to Classical musics, Reading Classic Literature, Volleyball, Swimming, Mountaineering, Reading Scientific Magazines.
<b>Supervisor</b>	<ul style="list-style-type: none"> <li>• <b>Dr. Hassan Aghaeinia, Associate Professor</b>  Electrical Engineering Department, Amirkabir University of Technology, Tehran, Iran.  Ph.D., Valenciennes University (UVHC), Valenciennes, France 1996  Email: <a href="mailto:aghaeini@aut.ac.ir">aghaeini@aut.ac.ir</a>  URL: <a href="http://www.aut.ac.ir/aghaeini">http://www.aut.ac.ir/aghaeini</a></li> </ul>