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<b>Personal Information</b>	<b>Place of Birth:</b> Shiraz-Iran <b>Birth Date:</b> July 6, 1979 <b>Marital Status:</b> Married, my sun is born in 2007.
<b>Education</b>	<p><b><u>2004 – 2009: Tarbiat Modares University, Tehran-Iran</u></b> PhD/ Communications Systems. <i>With the Average Grade of 17.55</i> PhD. Thesis: Precoding on MIMO MC-CDMA Systems Using EM Algorithm.  Supervisor: Dr. Paeiz Azmi.</p> <p><b><u>2002 – 2004: University of Tehran, Tehran-Iran</u></b> M.Sc./ Communications Systems. <i>With the Average Grade of 17.19</i> M.Sc. Thesis: Performance Analysis of LDPC-based Space-Time Codes on MC-CDMA Systems and Fading Channels.  Supervisor: Dr. Mohsen Shiva. Advisor: Dr. Seyyed Hamid Reza Jamali.</p> <p><b><u>1997 – 2002: Sharif University of Technology, Tehran-Iran</u></b> B.Sc./ Communications Systems. <i>With the Average Grade of 16.24</i> B.Sc. Project: Study and Simulation of a SHDSL System.  Supervisor: Dr. Mohammad Reza Pakravan</p>

<b>Professional Experiences</b>	<p><b><u>2010- Now: Science and Research Branch in Islamic Azad University, Tehran-Iran</u></b></p> <ul style="list-style-type: none"> <li>- Academic Staff in Electrical and computer Engineering faculty</li> <li>- Communications Group</li> </ul> <p><b><u>2002- 2009: Pardis Novel Processing Technology, Tehran-Iran</u></b></p> <ul style="list-style-type: none"> <li>- R&amp;D Engineer</li> <li>- Technical System Designer</li> <li>- Technical Consultant</li> </ul>
<b>Research Interests</b>	<ul style="list-style-type: none"> <li>- Wireless Communications, MIMO Signal Transmission, Multi-carrier Modulation, Multi-user Communications</li> <li>- Channel Coding, Information Theory</li> <li>- Detection and Estimation Theory</li> <li>- Signal Processing</li> <li>- Physical Layer Security</li> </ul>
<b>Teaching Academic Courses</b>	<p><b>Under Graduate Courses</b></p> <ul style="list-style-type: none"> <li>- Differential Equations</li> <li>- Electrical Circuits I</li> <li>- Electrical Circuits I Lab.</li> <li>- Communications Circuits Lab.</li> <li>- Digital Communications</li> </ul> <p><b>Graduate Courses</b></p> <ul style="list-style-type: none"> <li>- Stochastic Processes</li> <li>- Advanced Theory of Communications</li> <li>- Wireless Communications Systems</li> <li>- Detection Theory</li> <li>- Estimation Theory</li> <li>- Information Theory</li> <li>- Channel Coding</li> <li>- Matrix Calculation</li> <li>- Research Methodology</li> </ul>
<b>Industrial Projects</b>	<ul style="list-style-type: none"> <li>- Simulation of the DVB-S Transceiver Baseband Sections</li> <li>- Study of E1 Standard for Use in Digital Radio Links</li> <li>- Simulation of Channel Coding Blocks of DVB-T Transmitter</li> <li>- Study of Different Techniques for Coded Modulation</li> <li>- Design and Simulation of the Channel Coding Sections of the Physical Layer of a Tropo-Scatter Digital Radio Link</li> <li>- Study of LMDS and MMDS Standards</li> <li>- Study of Circuit Emulation Standards for ATM-based PMP Radios</li> <li>- Design and Simulation of QAM Radio Link Baseband Sections</li> </ul>
<b>Academic Projects</b>	<ul style="list-style-type: none"> <li>- Simulation of the Data Link Layer of Data Networks</li> <li>- Design and Implementation of a Universal Programmer Using FPGA Chips Funding Agency: Research division of Iran Ministry of Industrial Affairs</li> </ul>

	<ul style="list-style-type: none"> <li>- Design and Simulation of an Equalizer for MMDS Systems</li> <li>- Study of Intelligent Channel Allocation Algorithms for Cellular Communications Systems</li> <li>- A Security Policy for Mobile Wireless Networks</li> <li>- Low Complexity Blind Adaptive MIMO Channel Shortening</li> </ul>
<b>Skills</b>	<p><b><u>Professional, Academic and Industrial</u></b></p> <ul style="list-style-type: none"> <li>- Design of Digital Communications Systems</li> <li>- Simulation of Digital Communications Systems using Matlab and Simulink.</li> <li>- Theoretical Analysis of Digital Communications Systems</li> </ul> <p><b><u>Softwares</u></b></p> <ul style="list-style-type: none"> <li>- MATLAB and Simulink</li> <li>- MicroSoft Office</li> <li>- EndNote</li> <li>- C++</li> <li>- Orcad, PSpice</li> <li>- MaxplusII, Modelsim, ISE Foundation, Leonardo, Hardware Description (VHDL)</li> </ul>
<b>Honors</b>	The first position in Tarbiat Modares University's PhD Entrance Exam
<b>Patent</b>	Precoding for MIMO MC-CDMA Systems using EM Algorithm, Iranian Intellectual Property Center
<b>Papers &amp; Publications</b>	<p><b><u>Journal Papers</u></b></p> <p>[13] M. H. Abbaszadeh, B. H. Khalaj, A. Haghbin, "Optimum low complexity filter bank for generalized orthogonal frequency division multiplexing," <i>EURASIP Journal on Wireless Communications and Networking</i>, <a href="https://doi.org/10.1186/s13638-017-1017-x">https://doi.org/10.1186/s13638-017-1017-x</a>, Jan. 2018.</p> <p>[12] SSS. Ghaemmaghami, A. Haghbin, M. Mirmohseni, "<a href="#">Cryptanalysis and improvement of two new RFID protocols based on R-RAPSE</a>," <i>Journal of Communications and Information Networks</i>, Vol. 2, No. 3, pp. 107-122, Sept. 2017.</p> <p>[11] M. H. Abbaszadeh, B. H. Khalaj, A. Haghbin, "<a href="#">Error performance analysis for generalized orthogonal frequency division multiplexing</a>," <i>Computers and Electrical Engineering</i>, No. 61, pp. 139-150, July 2017.</p> <p>[10] S Sajjadi Ghaemmaghami, A Haghbin, M Mirmohseni, "Traceability improvements of a new RFID protocol based on EPC C1 G2," <i>The ISC International Journal of Information Security</i>, 8 (2), 105-114, July 2016.</p> <p>[9] MR. Ahadiat, P. Azmi, A. Haghbin, "BER Performance Analysis of</p>

MIMO-OFDM Communication Systems Using Iterative Technique Over Indoor Power Line Channels in an Impulsive Noise Environment,” *Information Systems & Telecommunication*, 4(1), 3-41, 2016.

[8] H. Jahanpanah, A. Haghbin, “Low Complexity SLM-Based PTS PAPR Reduction Scheme for OFDMA Uplink Systems,” *International Journal of Computer Science Issues (IJCSI)*, Vol. 12, No. 5, pp. 72-77, 2015.

[7] H. Hosseinzadeh, F. Razzazi, A. Haghbin, “[A Self Training Approach to Automatic Modulation Classification Based on Semi-supervised Online Passive Aggressive Algorithm](#),” *Wireless Personal Communications*, pp. 1-17, Springer, 2015.

[6] M. Izanlou, M. A. Pourmina, A. Haghbin, “Route optimization and roaming capability based MIPv6 protocol in internet network,” *International Journal of Computer Science Issues (IJCSI)*, Vol. 12, No. 4, pp. 28-32, 2014.

[5] A. Tajvidy, A. Haghbin, M. A. Pourmina, R. A. Sadeghzadeh, “[A New Multiple-Input–Multiple-Output Uniform Theory of Diffraction Based Channel Model for Multiple Building Diffraction in Urban Environments](#),” *Electromagnetics*, Vol. 34, No. 7, pp. 553-567, Taylor & Francis, Oct. 2014.

[4] M. R. Ahadiat, P. Azmi, A. Haghbin, “[Impulsive noise estimation and suppression in OFDM systems over in-home power line channels](#),” *International Journal of Communication Systems*, pp.1099-1131, John Wiley and Sons, July 2014.

[3] A. Tajvidy, M. Pourmina, M. Naser-Moghadasi, A. Haghbin, “An Improved UTD Based Model for the Multiple Building Diffraction of Plane Waves in Urban Environments by Using Higher Order Diffraction Coefficients,” *Wireless Personal Communications*, pp. 1-10, Springer, April 2013.

[2] A. Haghbin, P. Azmi, “Precoding in downlink multi-carrier code division multiple access systems using expectation maximisation algorithm,” *IET Comm.*, vol. 2, no. 10, pp. 1279-1288, Nov. 2008.

[1] A. Haghbin, M. Shiva and S. H. Jamali, “Performance analysis of the combination of LDPC and space-time codes on multi-carrier CDMA systems over fading channels,” *IEE Comm.*, vol. 153, no. 4, pp. 525-532, Aug. 2006.

#### **Conference Papers**

[8] H. Jahanpanah, Afrooz Haghbin, “[SLM-based dynamic clipping and amplification PAPR reduction schemes for interleaved OFDMA uplink systems](#),” in *proc. 22<sup>th</sup>. Iranian Conf. on Electrical Eng. ICEE2014*, pp.

	<p>1467-1501, Tehran, Iran, May 2014.</p> <p>[7] M. Moshirynia, F. Razzazi, A. Haghbin, “speech dereverberation method using adaptive sparse dictionary learning,” in <i>proc. REVERB Challenge Workshop 2014</i>, pp. 1-7, May 2014.</p> <p>[6] H. Hosseinzadeh, F. Razzazi, A. Haghbin, “Tracking performance of online large margin semi-supervised classifiers in automatic modulation classification,” in <i>proc. Sixth International Symposium on Telecommunications (IST2012)</i>, pp. 387-392, Iran, Nov. 2012.</p> <p>[5] H. Hosseinzadeh, F. Razzazi, A. Haghbin, “An adaptable architecture for blind modulations classification in variable SNR environments,” in <i>proc. 6th IEEE International Conference Intelligent Systems (IS)</i>, pp. 164-169, Sept. 2012.</p> <p>[4] S. M. Rezvani, S. H. Safavi, R. Sadegh Zadeh, A. Haghbin, R. Davarpanah, “Relay Power Minimization Approach based on General-Rank Beamforming for Multi-Antenna Relaying Schemes,” in <i>proc. 5th International Conference on New Technologies, Mobility and Security (NTMS)</i>, pp. 1-5, May 2012.</p> <p>[3] A. Haghbin, P. Azmi, “Precoding in downlink MC-CDMA systems using EM algorithm,” in <i>proc. 16<sup>th</sup>. Iranian Conf. on Electrical Eng. ICEE2008</i>, pp. 605-611, Tehran, Iran, 13-15 May 2008.</p> <p>[2] B. Bornoosh, A. Nabavi, M. E. Nick, A. haghbin, “A New Architecture for Reducing Phase Noise of Digital Carrier Recovery Algorithms in High-Order QAM Demodulators,” in <i>proc. IEEE International Conf. on Sig. Proc. and Comm., ICSPC2007</i>, pp. 668-671, Nov. 2007.</p> <p>[1] A. Haghbin, M. Shiva and S. H. Jamali, “LDPC-Based Space-Time Codes on Multi-Carrier CDMA Systems in Fading Channels,” in <i>proc. International Symposium on Telecommunications (IST 2005)</i>, pp. 573-578, Shiraz, Iran, 10-12 Sept., 2005.</p>
<p><b>Some Current Research</b></p>	<ul style="list-style-type: none"> <li>- Physical Layer Security in OFDMA Systems using Chaotic Functions</li> <li>- Low complexity SIC Design for Massive MIMO NOMA Transmitter</li> <li>- Constant Envelope Precoding Design for MIMO Multicarrier Transmitter</li> </ul>