Morteza Rajabzadeh Oghaz

Assistant Professor, Quchan University of Advanced Technology
Email: m.rajabzadeh@qiet.ac.ir

Education

January 2008-June 2014	**PhD** in Electrical Engineering, Communication systems, Ferdowsi University of Mashhad, Iran
	Dissertation Topic: "Multicarrier systems for cognitive radio networks"
August 2012-October 2013	**Visiting Scholar** in Digital Communication (DIGCOM) group, TELIN department, Ghent University, Ghent, Belgium
	Project Topic: "Receiver design for UW-OFDM systems"
2005- 2008	**M.Sc.** in Electrical Engineering, Communication systems, Ferdowsi University of Mashhad, Iran
	Dissertation Topic: "SVD Based Beamforming in MIMO MC-CDMA Systems"
	GPA: 17.97/20 (1st rank in a class of 20)
2001-2005	**B.Sc.** in Electrical Engineering, Communication systems, Ferdowsi University of Mashhad, Iran
	GPA: 17.47/20 (7th rank in a class of 110)

Research interests and key abilities

- multicarrier transmission schemes (OFDM, MC-CDMA, UW-OFDM)
- Spread Spectrum Communications and Code Division Multiple Access (CDMA) systems
- Multiple–Input Multiple–Output (MIMO) systems and beamforming
- Cognitive radio networks
- Optimization theory and applications
- Cellular Communications and Wireless Networks
- Design of physical layer of Communication systems
- MATLAB programming
- Excellent problem solving, communication and leadership skills

Publications

Book translation (into Persian)

Carl Selinger, *Stuff You Don't Learn in Engineering Schools: Skills for Success in the Real World*, John Wiley and IEEE Press, 2004.

Journal Papers:

- **M. Rajabzadeh**, H. Steendam, "Power spectral analysis of UW-OFDM systems," To appear in IEEE Transactions on Communication, 2017.
- **M. Rajabzadeh**, H. Khoshbin, "A novel multicarrier CDMA transmission scheme for cognitive radios with sidelobe suppression", Wiley International Journal of Communication Systems, DOI: 10.1002/dac.2326, to appear. [IF 0.406, Q4]

- **M. Rajabzadeh**, H. Khoshbin, "Novel spreading codes for multicarrier code division multiple access based cognitive radio networks with sidelobe suppression," Wiley Wireless Communications and Mobile Computing, DOI: 10.1002/wcm.2186, to appear. [IF 0.884, Q3]
- I. Ahadi-Akhlaghi, H. Khoshbin, **M. Rajabzadeh**, "A Novel Approach for Equalization of Frequency Selective MIMO Channels by Genetic Algorithms and SVD of Polynomial Matrices", International Journal of Information and Communication Technology, vol. 1, no. 2, pp. 11-19, May 2009 (in Persian).

Conference Papers:

- **M. Rajabzadeh**, H. Khoshbin, H. Steendam, "Sidelobe Suppression for Non-Systematic Coded UW-OFDM in Cognitive Radio Networks," in Proc. European Wireless Conference (EW 2014), Barcelona, May 2014.
- **M. Rajabzadeh**, H. Steendam, and H. Khoshbin, "Power spectrum characterization of systematic coded UW-OFDM systems," in Proc. IEEE 78th Vehicular Technology Conference (VTC Fall), 2013, pp. 1–5.
- H. Zamiri-Jafarian and **M. Rajabzadeh**, "SVD Based Joint Linear Transceiver Design for the Uplink of MIMO MC-CDMA Systems", *19th Iranian Conference on Electrical Engineering (ICEE),* May 2011, Tehran.
- **M. Rajabzadeh** and H. Khoshbin, "Receiver Design for Downlink MIMO MC-CDMA in Cognitive Radio Systems," *21th* IEEE *Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, September 2010, Turkey, pp. 786 - 790.
- H. Zamiri-Jafarian and **M. Rajabzadeh**, "SVD-Based Receiver for Downlink MIMO MC-CDMA Systems", *IEEE International Conference on Communications (ICC)*, June 2009, Germany, pp. 1-5.
- H. Zamiri-Jafarian and **M. Rajabzadeh**, "A polynomial matrix SVD approach for time domain broadband beamforming in MIMO-OFDM systems," *67th IEEE Vehicular Technology Conference (VTC-Spring)*, May 2008, Singapore, pp. 802-806.

Selected Research and Work Experience

Research Assistant, Ferdowsi University of Mashhad, Iran, January 2009 – August 2012
"Design of transmitter-receivers for MIMO MC-CDMA systems", (supervised by Dr. Hossein Zamiri-Jafarian).
Research Assistant, Ferdowsi University of Mashhad, Iran, January 2008- February 2009
"Developing technical standards for design of new major medical centers: the electric utilities sector", (supervised by Dr. Ahmad Shooshtari).
Systems Engineer, Sajjad Research Center, Mashhad, Iran, 2005-2006
"Testing the quality of the installation of installed GSM base stations in the province of Khorasan-Razavi"
Research Assistant, Ferdowsi University of Mashhad, Iran, summer 2003
"Study on sensors and relays deployed in modern cars", (supervised by Dr. Hossein Tabatabayi-Yazdi).

Teaching Experience

Fall 2008- Now	**Assistant Professor** in electrical Engineering, Quchan University of Advanced Technologies
Fall 2008-Summer 2011	**Instructor** for Filters synthesis (6 semesters) , Circuits for Communication systems (1 semesters)
	Islamic Azad University , Mashhad Division, Iran
Fall 2008-Summer 2012	**Instructor** for Digital Communications (2 semesters), Logical Circuits (2 semesters)
	Imam Reza University, Mashhad, Iran
Fall 2005- Fall 2007	**Instructor** for the Laboratories: Circuits for Communication systems, Pulse Techniques
	Sajjad Institute for Higher Educations, Mashhad, Iran.

Fall 2003- Fall 2007   **Teaching Assistant** for Advanced Communications (1 semester), Digital Communications (2 semesters), Communications Systems (2 semesters), Linear Control (1 semester) Ferdowsi University of Mashhad, Iran.

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