

Mohammad Hossein Moghaddam - Curriculum Vitae, version Oct 2017

CONTACT INFORMATION	Tel: +46 317721890 Email: mh.moghaddam@chalmers.se mohammad.hossein.moghaddam@aerounix.com Skype ID: mh.farid.Moghaddam
EDUCATION	<p>Chalmers University of Technology, Gothenburg, Sweden</p> <p>PhD Student, Communications System Engineering, Oct 2017 - present</p> <ul style="list-style-type: none">• Project: <i>Calibration of antenna array systems and impairment mitigation methods</i> funded by European unions horizon 2020 research and innovation programme under the MARIE SKODOWSKA-CURIE grant for SILIKA project• Supervisor: Prof. Thomas Eriksson <p>K.N. Toosi University of Technology, Tehran, Iran</p> <p>M.Sc., Communications System Engineering, Sep 2010 - Nov 2012</p> <ul style="list-style-type: none">• Dissertation Title: <i>Analysis and simulation of relay deployment effect in improving the performance of cooperative cellular networks</i> funded by Iran Telecommunication Research Center (ITRC)• Supervisors: Prof. Kamal Mohamed-pour and Prof. Seyed M.H. Andargoli• References: [J1], [C8], [C9] <p>Shahed University, Tehran, Iran</p> <p>B.S., Electrical Engineering, Sep 2005- Sep 2010</p> <ul style="list-style-type: none">• Dissertation Title: <i>Computer simulations of RX-TX synchronization algorithms based on OFDM technique</i>• Advisor: Prof. HamidReza Bakhshi
WORK & RESEARCH EXPERIENCE	<p>Co-founder of Aerounix Startup Nov 2016 - present Aerounix. www.aerounix.com Tehran, Iran Field: Aeronautics</p> <p>RF Optimization Engineer Feb 2016 - Aug 2017 Ericsson Corp. Tehran, Iran Field: Telecommunication</p> <p>Researcher May 2014 - May 2015 Iran Telecommunication Research Center (ITRC) Tehran, Iran Research Field: Broadband Communication</p> <p>Researcher Dec 2012 - Dec 2013 Elites Foundation Tehran, Iran Research Field: Digital Communication, Digital Signal Processing</p> <p>Research Assistant Sept 2011 - Nov 2012 DSP & UWB Lab, Faculty of Electrical Engineering, K. N. Toosi University of Technology Supervisor: Prof. Kamal Mohamed-pour Research Field: Wireless Communication, Digital Signal Processing</p>

ACCOMPLISHED
PROJECTS

- [P1] Design and prototyping of carrier-superposition module for SCPC VSAT modems (co-designer)
Affiliation: K.N. Toosi University of Technology and Informatics Service Corporation (ISC)
(May 2016 - Aug 2017, the project halted due to budget cut)
- [P2] Design and implementation of BCJR/MBCJR decoder with wrap-around technique (accomplished in Jul 2016)
Affiliation: Elites Foundation
reference: [J2]
- [P3] Performance investigation of turbo-product coding and unequal error protection for scalable video coding algorithms (accomplished in Sep 2015)
Affiliation: Elites Foundation
Reference: [C6]
- [P4] Designing a system model for contention-ratio measurement in broadband communication networks (co-designer, accomplished in May 2015)
Affiliation: Iran Telecommunication Research Center (ITRC)
Reference: Report ID "CTI.FCG.TER.9231413.07" in ITRC Library
- [P5] Design and simulation of MIMO-OFDM modem, considering CFO estimation and I/Q imbalance compensation" (accomplished in December 2013)
Affiliation: Elites Foundation
Reference: [C7]

RESEARCH
INTERESTS

Statistical Signal Processing and Machine Learning: Estimation-Detection theory, compressive sensing, array processing, RADAR signal processing, hyperspectral imaging, microwave imaging, financial signal processing, biomedical imaging

Wireless Communication: Iterative receiver design, calibration techniques for massive MIMO systems

JOURNAL
PUBLICATIONS

- [J1] **M.H. Moghaddam**, K. Mohamed-pour, and S.M.H. Andaragoli, "Weighted sum throughput maximisation for cooperative relay-aided multi-cell orthogonal frequency division multiple access cellular networks considering partial fairness." IET Communications 10, no. 7 (2016): 778-789.
- [J2] **M.H. Moghaddam**, Y. Ettefagh and G assarzadeh "Performance Investigation of MBCJR Decoder with Wrap-Around Technique for efficient fixed-point implementation" (in preparation to be submitted to IEEE communications Letters)
- [J3] **M.H. Moghaddam** and Y. Ettefagh"Compressive sampling Ultra-Wideband Imaging for Breast Cancer Detection"(in preparation)

CONFERENCE
PAPER
PUBLICATIONS

- [C1] **M.H. Moghaddam**, M.J. Azizpour, S. Vahidian and Bisma Smida, "A Framework for Super-Resolution of Scalable Video via Sparse Reconstruction of Residual Frames", IEEE Milcom, Baltimore, Maryland, 2017.
- [C2] Y. Ettefagh, **M.H. Moghaddam**, and S. Vahidian "A Novel Low-Complexity Framework in Ultra-Wideband Imaging for Breast Cancer Detection", IEEE BIBE 2017, Washington DC, USA, 2017.

- [C3] Y. Ettefagh, **M.H. Moghaddam**, and S. Eghbali "An Adaptive Neural Network Approach for Automatic Modulation Recognition", 51st Conference on Information Sciences and Systems, Baltimore, Maryland, USA (CISS 2017)).
- [C4] A. Shiri, **M.H. Moghaddam**, A. Rahimi-Kian and B. Maham "Price Eciency Forecasting in Financial Markets Using Continuous-Continuous Hidden Markov Model" (in preparation)
- [C5] A. Kasaeian, **M.H. Moghaddam** and G. Assarzadeh, "Performance Investigation of Joint Source-Channel Coding of Speech for Persian Dialectic, using MELP Vocoder and MAP Decoding" *24th Iranian Conference on Electrical Engineering (ICEE 2016)*, Shiraz, Fars, Iran, May 10-12, 2016.
- [C6] **M.H. Moghaddam** and G. Assarzadeh, "Performance Investigation of Video Transmission Based on H.264 Standard Using Turbo Product Coding and Unequal Error Protection" *9th Iranian Conference on Machine Vision and Image Processing (ICMVIP 2015)*, Tehran, Iran, November 18-19, 2015.
- [C7] **M.H. Moghaddam** and G. Assarzadeh, "Both Transmitter and Receiver IQ Imbalance Compensation and CFO Synchronization for LDPC-Coded MIMO-OFDM Systems Using OSTBC Algorithms" *22nd Iranian Conference on Electrical Engineering (ICEE 2014)*, Tehran, Iran, 2014.
- [C8] **M.H. Moghaddam**, K. Mohamed-pour and S.M.H. Andaragoli, "Resource Allocation in Multi-Cell Decode-and-Forward Relaying OFDMA Cellular Networks in the Presence of Multi-Cell Interference." *IEEE International Symposium on Telecommunication Technologies(ISTT 2012)*, Kuala Lumpur, Malaysia, 2012.
- [C9] **M.H. Moghaddam**, K. Mohamed-pour and S.M.H. Andaragoli, "Power Allocation in Multi-Cell Decode-and-Forward Relaying Cellular Networks in the Presence of Interference Channel ." *6th International Symposium on Telecommunication (IST 2012)*, Tehran, Iran, 2012.

AWARDS	Student Award — Iran Telecommunication Research Center <ul style="list-style-type: none"> • MSc. Research Scholarship program funded by Iran Telecommunication Research Center (ITRC) 2011–2012 								
TEACHING EXPERIENCE	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">University Lecturer</td> <td style="text-align: right;">January 2014 - April 2014</td> </tr> <tr> <td colspan="2">Signals and Systems Engineering Faculty, Azad University, Tehran, Iran.</td> </tr> <tr> <td>Teaching Assistant</td> <td style="text-align: right;">Spring semester, 2013 and Fall semester, 2014</td> </tr> <tr> <td colspan="2">Digital Signal Processing Instructor: Prof. Kamal Mohamed-pour, Department of Electrical Engineering, K.N. Toosi University of Technology</td> </tr> </table>	University Lecturer	January 2014 - April 2014	Signals and Systems Engineering Faculty, Azad University, Tehran, Iran.		Teaching Assistant	Spring semester, 2013 and Fall semester, 2014	Digital Signal Processing Instructor: Prof. Kamal Mohamed-pour, Department of Electrical Engineering, K.N. Toosi University of Technology	
University Lecturer	January 2014 - April 2014								
Signals and Systems Engineering Faculty, Azad University, Tehran, Iran.									
Teaching Assistant	Spring semester, 2013 and Fall semester, 2014								
Digital Signal Processing Instructor: Prof. Kamal Mohamed-pour, Department of Electrical Engineering, K.N. Toosi University of Technology									
TECHNICAL SKILLS	<ul style="list-style-type: none"> • Programming Languages: C++ • Simulation: MATLAB (m-file, Simulink, GUI) • Integrated circuit design : familiar with VHDL 								
LANGUAGE PROFICIENCY	<ul style="list-style-type: none"> • Farsi: Native • English: Fluent • Swedish: Elementary 								

- French: Elementary
- Arabic: Basic