ROOHOLLAH AMIRI

Visiting Researcher at University of Texas at Austin
PhD candidate, Electrical and Computer Engineering
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EDUCATION

Ph.D in Electrical and Computer Engineering , **Jan 2016-present**

Boise State University, Boise, Idaho, USA

- GEM scholarship Recipient
- Field: **Reinforcement Learning** for Self-Organization of Heterogeneous Networks
- 3.89 GPA
- Major in Signal Processing / Minor in Computer Science

M.Sc in Electrical Engineering and Wireless Communications , **2011-2013**

Iran University of Science and Technology, Tehran, Iran

- Ranked as First Student
- **Dissertation**: Cross Layer Resource Allocation in OFDMA Relay Networks

B.S.c in Electrical Engineering , **2007-2011**

Iran University of Science and Technology, Tehran, Iran

- Major in communication systems

PROFESSIONAL EXPERIENCE

Visiting Research Scholar, University of Texas at Austin, 2019 - present
Wireless Networking and Communication Group (WNCG)
Supervisor: Prof. Jeffery Andrews
Topology management of dense wireless networks with reinforcement learning

Graduate Research Assistant, Boise State University 2016-2019
High Performance and Computing Lab
Supervisor: Dr. Hani Mehrpouyan
Integrate learning techniques to assist with **self-organization of 5G** wireless networks.

Engineer at Mojpardaz Company, Tehran 2013-2016
Successfully led key projects which resulted in Signal processing related industry products.

Teacher assistant at Iran University of Science and Technology, Tehran 2012-2013
Developed lesson plans to teach course materials of Spread Spectrum and CDMA systems.

Active Reviewer of multiple IEEE journals since 2015: IEEE Communication Letters, IEEE Transactions on Vehicular Technology, IEEE Transactions on Cognitive Communications and Networking, IEEE Systems Journal.

WEBSITES

LinkedIn: **https://www.linkedin.com/in/roamiri/**
Github: **https://github.com/roamiri**
Researchgate: **https://www.researchgate.net/profile/Roohollah_Amiri**
Google Scholar: **https://scholar.google.com/citations?user=UovQ3w0AAAAJ&hl=en**

PUBLICATIONS

Accepted Articles:

[J1] R.Amiri, M.Ahmadi Almasi, Jeffrey G. Andrews, H.Mehrpouyan, "**Reinforcement Learning** for Self-Organization and Power Control of Two-Tier Heterogeneous Networks", **IEEE Transactions on Wireless Communications**, June, 2019.

[C5] M.A.Ahmadi, **R.Amiri**, M.Vaezi, H.Mehrpouyan, "Lens-based Millimeter Wave Reconfigurable Antenna NOMA", IEEE International Conference on Communications Workshops, May 2019.

[C4] R.Amiri, H.Mehrpouyan, L.Fridman, R.K.Mallik, A.Nallanathan and D.W Matolak, "**A Machine Learning Approach** for Power Allocation in HetNets Considering QoS", IEEE International Conference on Communications, May, 2018.

[C3] R.Amiri, H.Mehrpouyan, D.Matolak, M.Elkashlan, "Joint Power Allocation in Interference-Limited Networks via **Distributed Coordinated Learning**", IEEE Vehicular Technology Conference, August, 2018.

[C2] R.Amiri, H.Mehrpouyan, "Self-Organizing mmWave Networks: A Power Allocation Scheme Based on **Machine Learning**", IEEE GSMM, May, 2018.

[C1] R.Amiri, H.Mehrpouyan, "Multi-Stream LDPC Decoder on GPU of Mobile Devices", IEEE CCWC 2019.

Under Review Articles:

- ✔ M.Ahmadi Almasi, **R.Amiri,** H.Mehrpouyan, "A New Millimeter Wave MIMO System for 5G Networks", arXiv version available. 2018.
- ✔ M.Ahmadi Almasi, **R.Amiri,** H.Jafarkhani**,** H.Mehrpouyan, "MmWave Lens-based MIMO System for Suppressing Small-scale Fading and Shadowing", submitted to IEEE Transactions on Wireless Communications.

Awards and Honors

- **GEM** scholarship Recipient at Boise State University
- **Graduate Showcase** award recipient at Boise State University – 2018
- **MUG 16** Student reward recipient from **Ohio state University** - 2016
- **First ranked student** at Iran University of Science and Technology, ECE department, 2012

Graduate Courses

- Machine Learning / Deep Learning / Reinforcement Learning / Recommender systems
- Digital Communications / Wireless Communications / Information theory
- Linear systems / Stochastic signals and systems / Digital signal processing
- Parallel scientific computing / Digital hardware design