

# YASAMAN GHASEMPOUR

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## EDUCATION

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- **Ph.D. Candidate, Rice University** May 2016- Dec. 2019 (expected)  
Dept. of Electrical and Computer Engineering  
GPA: 4.17/4.0  
Advisor: Edward W. Knightly
- **M.S., Rice University** Aug. 2014- May 2016  
Dept. of Electrical and Computer Engineering  
GPA: 4.03/4.0  
Thesis: Scaling 60 GHz WLANs: Creating and Identifying Opportunities for Multi-User Transmission  
Committee: Edward W. Knightly (*Chair*), Behnaam Aazhang, Aydin Babakhani
- **B.Sc., Sharif University of Technology** Aug. 2010- May 2014  
Dept. of Electrical Engineering  
GPA: 3.83/4.0

## RESEARCH INTERESTS

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Wireless communication and sensing, millimeter-wave networks, 5G, visible-light communications  
MIMO, wireless security, RFID

## SKILLS

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<b>Specialized Software:</b>	NS3, Simulink, LabVIEW, OPNET, ModelSim, Code Vision AVR
<b>Programming Languages:</b>	MATLAB, Java, Python, C++, C, Assembly, HTML, $\LaTeX$
<b>Hardware:</b>	WARP platform, Verilog, PCB design, DSP
<b>Languages:</b>	English, Persian

## PROFESSIONAL EXPERIENCE

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- Rice University, TX, USA** 2014- present  
*Research Assistant*
  - Beam Acquisition and Tracking in mobile 60 GHz WLANs
  - Scaling Wi-Fi to High Data Rate and High Client Density
  - Enabling Multi-Stream Transmissions for Next-Gen Wireless Technology: User and Beam Selection
  - Experimental Evaluations in 60 GHz Frequency Band
  - Exploiting Indoor Luminaries to Adapt Directional 60 GHz Beams
- NEC Labs America, NJ, USA** Summer 2016  
*Research Intern*
  - Downlink MU-MIMO Scheduling
  - Managing Analog Beams in mmWave Networks
  - Link Packing in mmWave Networks

## HONORS & AWARDS

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- **Star Doctoral Student in ECE program, Rice University** 2018
- **Runner Up, Best Paper Award, ACM WiNTECH 2017** 2017
- **Texas Instruments Distinguished Fellowship** 2014- present
- **ACM SIGMOBILE Travel Grant** 2016 and 2017
- **N2Women Travel Grant** 2016
- **Rice Electrical and Computer Engineering Fellowship** 2014- 2015
- **Society of Iranian-American Women for Education Fellowship** 2015 and 2017
- **Member of National Elites Foundation of Iran** 2010- present
- **Exempted from M.Sc. Entrance Exam** in Iran as an exceptionally talented undergraduate student 2014
- **Ranked 7th** in the Nationwide University Entrance Exam in Iran (batch size 320,000) 2010
- **Ranked 13th** in the Nationwide University Entrance Exam for linguistics in Iran (batch size 11,000) 2010
- **Ranked 1st** in the Nationwide Islamic Azad University Entrance Exam in Iran (batch size 100,000) 2010
- **Semifinalist**, National Mathematics Olympiad 2008

## PUBLICATIONS

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- **Y. Ghasempour**, M. K. Haider, E. Knightly, “Decoupling Beam Steering and User Selection for Scaling Multi-User 60 GHz WLANs,” submitted to Transactions on Networking.
- S. K. Saha, **Y. Ghasempour** et al., “X60: A Programmable Testbed for Wideband 60 GHz WLANs with Phased Arrays,” submitted to Computer Communications.
- **Y. Ghasempour**, M. K. Haider, C. Cordeiro, D. Koutsonikolas, E. Knightly, “Diversity Steering with PDP for Multi-Stream 60 GHz WLANs,” submitted to ACM MobiCom, 2018.
- M. K. Haider, **Y. Ghasempour**, Koutsonikolas, E. Knightly, “LiSteer: mmWave Beam Acquisition and Steering by Tracking Indicator LEDs on Wireless APs”, submitted to ACM MobiCom, 2018.
- M. K. Haider, **Y. Ghasempour**, E. Knightly, “SearchLight: Tracking Device Mobility using Indoor Luminaries to Adapt 60 GHz Beams,” in Proceeding of ACM MobiHoc, 2018.
- **Y. Ghasempour**, C. Cordeiro, C. DaSilva, E. Knightly, “IEEE 802.11ay: Directional 60 GHz MIMO Communication for 100-Gbps Wi-Fi,” in IEEE Communications Magazine, vol. PP, no. 99, pp. 1-7.
- **Y. Ghasempour**, E. Knightly, “Decoupling Beam Steering and User Selection for Scaling Multi-User 60 GHz WLANs,” in Proceeding of ACM MobiHoc, 2017.
- S. K. Saha\*, **Y. Ghasempour\***, M. K. Haider\* et al. , “X60: A Programmable Testbed for Wideband 60 GHz WLANs with Phased Arrays,” in Proceeding of the 11th International Workshop on Wireless Network Testbeds, Experimental evaluation & CHaracterization (WiNTECH), 2017. **Second Place, Best Paper Award**
- **Y. Ghasempour**, N. Prasad, M. Khojastepour, S. Rangarajan, “Managing Analog Beams in mmWave Networks,” in Proceeding of Asilomar Conference on Signals, Systems and Computers, 2017.
- **Y. Ghasempour**, N. Prasad, M. Khojastepour, S. Rangarajan, “Link Packing in mmWave Networks,” in Proceeding of IEEE ICC, 2017.

- **Y. Ghasempour**, N. Prasad, M. Khojastepour, S. Rangarajan, “Novel Combinational Results on Downlink MU-MIMO Scheduling with applications,” in Proceedings of IEEE WONS, 2017.
- **Y. Ghasempour**, “Scaling 60 GHz WLANs: Creating and Identifying opportunities for Multi-User Transmission”, Master’s Thesis, May 2016.
- \*Primary co-authors

## PATENTS

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- “Link Packing in mmWave Networks”, US Patent App. 15/678,681.
- “Managing Analog Beams in mmWave Networks”, US Patent App. 15/676,517.

## LEADERSHIP

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- Co-Chair of ACM S<sup>3</sup> Workshop in conjunction with MobiCom 2016, New York, USA.
- Member of Dean of Engineering’ Student Advisory Council 2017- present
- Member of Women’s Leadership Group in Electrical and Computer Engineering, Rice University 2014- present
- Vice president of Rice Iranian Society 2014- 2017
- Scientific Assistant Director of the 11th annual conference of Sharif University Jan. 2013

## PROFESSIONAL ACTIVITIES

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- **Invited Talk** in ACM Millimeter Networks (mmNets) Workshop, in conjunction with ACM MobiCom 2017.
- **Co-Chair of ACM S<sup>3</sup> 2016**, in conjunction with ACM MobiCom 2016.
- **Poster:**
  - Y. Ghasempour et al., “mmWave Beam Acquisition and Steering with Practical Phased Array Antennas,” ECE Affiliates Conference, Rice University, March 2018.
  - S. K. Saha, Y. Ghasempour, M. K. Haider, et.al. , “X60: A Programmable Testbed for Wideband 60 GHz WLANs with Phased Arrays,” in Proceeding of the ACM MobiCom, 2017.
  - Y. Ghasempour and E. Knightly, “Spatial Multiplexing in Millimeter-Wave Networks,” Keck Seminar, Brown University, October 2016.
  - Y. Ghasempour and E. Knightly, “Maximizing Spatial Streams in THZ band,” Keck Seminar, Rice University, November 2015.
  - Y. Ghasempour et al., “Next Generation Millimeter-Wave Wireless Communications: Achieving Multi-Gigabit Data Rates,” ECE Affiliates Conference, Rice University, March 2015.
- **Reviewer:**
  - IEEE Transactions on Communications 2018
  - IEEE Transactions on Wireless Communications 2017, 2018
  - Elsevier Computer Networks (COMNET) 2018
  - IEEE Wireless Communications and Networking Conference (WCNC) 2018
  - IEEE Millimeter-Wave Networked System (mmSys) Workshop, 2018
  - IEEE Wireless On-demand Network systems and Services (WONS) 2017, 2018
  - ACM S<sup>3</sup> 2018
  - IEEE Dynamic Spectrum Access Networks (DySPAN) 2017
  - IEEE International Conference on Sensing, Computing, and Networking (SECON) 2015