Seyed Hamed Rastegar

Postdoc Researcher
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Academic Timeline

- **Institute for Research in Fundamental Sciences (IPM)**
  Postdoctoral Researcher, School of Computer Science
  May 2020-now

- **University of Tehran, Tehran, Iran**
  PhD. in Electrical Engineering, Communication Systems
  GPA: 18.10/20
  Sep 2012-Oct 2018

- **Sharif University of Technology, Tehran, Iran**
  M.Sc. in Electrical Engineering, Communication Systems
  GPA: 16.51/20
  Sep 2009-Sep2011

- **University of Tehran, Tehran, Iran**
  B.Sc. in Electrical Engineering, Communications
  GPA: 16.17/20
  Sep 2005-Sep2009

Research Interests

- **Computer and Communication Networks**
- **Cloud/Edge Computing**
- **Data Science: Mathematical Theory and Applications**

Publication

[1] S. H. Rastegar, A. Abbasfar and V. Shah-Mansouri, "Rule Caching in SDN-Enabled Base Stations Supporting Massive IoT Devices With Bursty Traffic", *IEEE Internet Things J.*, vol. 7, no. 9, pp. 8917-8931, Sept. 2020.

[2] M. Dolati, S. H. Rastegar, A. Khonsari, and M. Ghaderi, "Layer-Aware Containerized Service Orchestration in Edge Networks", Accepted in *IEEE Trans. on Network and Service Management*, 2022.

[3] S. H. Rastegar, A. Abbasfar and V. Shah-Mansouri, "On fair rule caching in software defined radio access networks", *IEEE Wireless Commun. Lett.*, vol. 7, no. 3, pp. 460-463, Jun. 2018.

[4] P. Naghavi, S. H. Rastegar, V. Shah-Mansouri, and H. Kebriaei. "Learning RAT selection game in 5G heterogeneous networks", *IEEE Wireless Commun. Lett.*, vol. 5, no. 1, pp. 52-55, Feb. 2016.

[5] S. H. Rastegar, A. Abbasfar, V. Shah-Mansouri, "Latency-Aware Sum-Rate Maximization for 5G Software-Defined Radio Access Networks", *The Computer Journal*, vol. 60, no. 10, Pages 1482–1497, October 2017.

[6] B. Soleymani, A. Zamani, S. H. Rastegar and V. Shah-Mansouri, "RAT selection based on association probability in 5G heterogeneous networks", in the Proc. *IEEE SCVT*, Leuven, 2017, pp. 1-6.

[7] S. H. Rastegar, S. Vakilinia, and B. H. Khalaj, "Rate Adaptation and Power Allocation for Time-Correlated MISO Rayleigh Fading Channel with Delay-Limited HARQ", in the Proc. IEEE ICC'12, Ottawa, June 2012.

[8] F. Haddadpour, E. Gholami, S. H. Rastegar and H. Behroozi, "Finite-SNR Diversity Multiplexing Trade-off in Multi-Relay Channels", in the Proc. Iran Workshop on Communication and Information Theory (IWCIT), Tehran, Iran, May 2013.

[9] S. H. Rastegar, A. Abbasfar and V. Shah-Mansouri, "Delay Analysis of Base Station Flow Table in SDN-enabled Radio Access Networks", National Informatics Conference of Iran, Tehran, Iran, Dec. 2020.

Submitted Papers

[1] S. H. Rastegar, H. Shafiei and A. Khonsari, "EneX: An Energy-Aware Function Scheduler for Serverless Computing", Revision has been submitted to ***IEEE Trans. on Industrial Informatics***, Jan. 2023.

[2] M. Cheraginia, S. H. Rastegar, V. Shah-Mansouri, H. Kebriaei, K. Zhu, D. Niyato, "Incentivization of Computation Nodes to Collaborate with an Edge Service Provider", Revision has been submitted to ***IEEE Trans. on Network Science and Engineering***, Jan. 2023.

[3] M. Hooshangi-Naghani, M. Dolati, A. Khonsari, S. H. Rastegar, and M. Ghaderi, "Heavy Hitter Detection in IoT Networks: A Tomography-based Approach," Submitted to ***IEEE/ACM IWQoS*** 2023.

Teaching Experiences

- Instructor for Discrete Mathematics Course (Undergraduate), School of CE, Iran University of Science and Technology, Spring 2022.
- Instructor for Data Transmission Course (Undergraduate), School of ECE, University of Tehran, Spring 2018.
- Instructor for Stochastic Processes Course (Graduate), School of ECE, Qom University of Technology, Fall 2019.
- Instructor for Digital Communications Course (Undergraduate), School of ECE, Qom University of Technology, Fall 2019.
- Instructor for Software Defined Networking (SDN) Short Course, Telecommunication Infrastructure Company (TIC) of Iran, Summer 2016.
- Instructor of SDN-NFV based 5G Core Network Workshop, Iranian Conference on Electrical Engineering (ICEE), Spring 2017.

Honors & Awards

- Ranked 96th among around 200000 participants in the Nationwide Universities Entrance Exam (Konkoor) – Summer 2005
- Ranked 13th in the Nationwide Universities Entrance Exam for PhD degree – Spring 2012
- Selected as "Exceptional Talents" by "National Organization for Educational Testing"-Summer 2005
- Faculty of Engineering (University of Tehran) scholarship as an exceptional student in term (Fall 2005, Spring 2008)
- Won acceptance in the first stage of nationwide competition to select national "chemistry" Olympiad team-Winter 2003.

References

➢ **Ahmad Khonsari**
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➢ **Vahid Shah-Mansouri**
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➢ **Aliazam Abbasfar**
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