Dear Colleagues at IPM

This is indeed a great pleasure for me to write this letter of recommendation for Dr. Seyed Hamed Rastegar for the Senior Postdoctoral position at the School of Computer Science of IPM. I know Hamed for almost ten years, since his first year of PhD program. He took one of my courses, advanced data networks, in fall semester of 1392 where he got 18.5/20 with class average of 17 and ranked him second in class of 12. I was also serving as the second supervisor for his PhD thesis. Hamed successfully defended his thesis in 2018 with excellent mark (درجه عالی). His current research area is generally around computer and communication networks with specific focus on IoT and edge/cloud computing. Hamed has also taught Digital Transmission course which is an undergraduate course for software and IT engineering disciplines in UT and he received excellent feedback. I believe his talent, smartness, and discipline qualify him for academic and research positions.

Hamed did his PhD thesis in the area of SDN-based RAN networks. He also has research experience on RAT selection in heterogeneous networks. The output of his PhD research so far has been published as the following papers:

[J1] S. H. Rastegar, A. Abbasfar, V. Shah-Mansouri, "Latency-Aware Sum-Rate Maximization for 5G Software Defined Radio Access Networks," *Computer Journal*, vol. 60, no. 10, pp. 1482–1497, Oct. 2017.

[J2] S. H. Rastegar, A. Abbasfar, V. Shah-Mansouri, "On Fair Rule Caching in Software Defined Radio Access Networks," *IEEE Wireless Communications Letters*, vol. 7, no. 3, pp. 460-463, Jun. 2018.

[J3] S. H. Rastegar, A. Abbasfar, V. Shah-Mansouri, "Rule Caching in SDN-enabled IoT Networks for Massive Devices with Bursty Traffic," IEEE Internet of Things Journal, vol. 7, no. 9, pp. 8917-8931, Sep. 2020.

[C1] S. H. Rastegar, A. Abbasfar, V. Shah-Mansouri, "Delay Analysis of Base Station Flow Table in Software Defined Radio Access Networks", in Proc. of 2nd National Informatics Conference of Iran (NIC), pp. 69-74, Dec. 2020.

Hamed is smart, sharp, and passionate in research. He always has new ideas and he is self-motivated. He is a critical thinker with both soft and hard skills. He is hard working, well-scheduled and disciplined. Hamed is also truly accurate in his work and duties. He is responsible for the tasks that you assign him and do them in the best way and on time.

Hamed has substantial knowledge in computer and communication networks in different layers and areas. He is well familiar with new networking concepts such as SDN, NFV, and 5G/6G. He has strong background in mathematics specially probability theory, game theory and optimization theory. He is skillful in mathematical modeling of computer and communication networks as well as algorithms and methods suitable for distrusted, optima, and heuristic solutions.

Hamed has been helping several of my master students these years where he has showed significant skills in team working. He is kind, easy going and passionate in helping others. He is a perfect coach and mentor for undergraduate and graduate students. The output of these collaborations are as below.

[J4] P. Naghavi, S. H. Rastegar, V. Shah-Mansouri, H. Kebriaei, "Learning RAT Selection Game in 5G Heterogeneous Networks," IEEE Wireless Communication Letters, vol. 5, issue 1, pp. 52-55, Feb. 2016.

[C2] B. Soleymani, A. Zamani, S. H. Rastegar, V. Shah-Mansouri, "RAT Selection Based on Association Probability in 5G Heterogeneous Networks," in Proc. of IEEE SCVT Symposium, Leuven, Belgium, pp. 1-6, Nov. 2017.

[J5] 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.

Wholeheartedly, I strongly recommend Hamed for the Senior Postdoctoral position and I am sure he can build a strong academic and research career within this program.

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