

Curriculum Vitae

August 1, 2016

❖ Personal Information

Farzad Tashtarian
Assistant Professor
Department of Computer Engineering,
Islamic Azad University of Mashhad, Mashhad, Iran.
Email: f.tashtarian@mshdiau.ac.ir
Web: <http://tashtarian.mshdiau.ac.ir/>



❖ Education

- ✓ Ph.D (2009-2014): Ferdowsi University of Mashhad, Iran
Ph.D. in Computer Engineering with major in Computer Networking
Thesis Title: "An Energy-Aware Data Harvesting Algorithm in Wireless Sensor Network through Determining the Optimal Trajectory of Mobile Sink"
Supervisor: Prof. M.H. Yaghmaee Moghaddam
Advisors: Prof. Khosrow Sohraby, and Dr. Sohrab Effati
Visiting Scholar at University of Missouri-Kansas City (UMKC), from February to October 2013
Grade=19.12/20
- ✓ M.Sc (2005-2007): Islamic Azad University of Qazvin, Iran
M.Sc. in Computer, Electrical & Information Technology
Thesis Title: "Designing QoS-based Clustering algorithm for Wireless Sensor Network"
Supervisor: Dr. Abolfazl Toroghi Haghghat
Grade =19.02/20
- ✓ B.Sc (2001-2005): Islamic Azad University of Mashhad, Iran
B.Sc. in Computer Engineering
Thesis Title: "Developing a software to control a webcam through Internet and PSTN lines"
Supervisor: Dr. Mehdi Yaghobi
Grade = 16.88/20

❖ Research Interests

- ✓ Networking Aspects of Wireless and Mobile Communications, Wireless & Multimedia Sensor Network, software-defined networking (SDN), Network Function Virtualization (NFV), large-scale datacenters, resource allocation, mathematical modeling and distributed optimization.

❖ Publications

➤ Journal Papers:

- ✓ F. Tashtarian, Mohammad Reza Majma, Hossein Pedram and Mehdi Dehghan Takht Fooladi "Controlling Mobile Sink Trajectory for Data Harvesting in Wireless Sensor Networks", *Wireless Personal Communication (Springer)*, June 2016. DOI: 10.1007/s11277-016-3383-9
- ✓ A. Montazerolghaem, M.H. Yaghmaee, A. Leon-Garcia, M. Naghibzadeh and F. Tashtarian, "A Load-Balanced Call Admission Controller for IMS Cloud , Computing" , *IEEE Transactions on Network and Service Management*, January 2016, DOI: 10.1109/TNSM.2016.2572161
- ✓ A. Montazerolghaem, S. A. Hosseini Seno, M. H. Yaghmaee and F. Tashtarian, "Overload mitigation mechanism for VoIP networks: a transport layer approach based on resource management", *Transactions on Emerging Telecommunications Technologies*, 21 APR 2016 | DOI: 10.1002/ett.3038.
- ✓ F. Tashtarian, M.R. Majma, H. Pedram, and M. Dehghan, "A New Data Dissemination Protocol for Mobile Sink in Wireless Sensor Networks", *Research-Scientific Journal of Islamic Azad University of Mashhad (In Persian)*(2014).
- ✓ Farzad Tashtarian, M. H. Yaghmaee Moghaddam, Khosrow Sohraby, and S. Effati. "On Maximizing the Lifetime of Wireless Sensor Networks in Event-Driven Applications with Mobile Sinks." *IEEE Transactions on Vehicular Technology* (2014).(DOI: 10.1109/TVT.2014.2354338)
- ✓ Farzad Tashtarian, M.H. Yaghmaee Moghaddam, Khosrow Sohraby, and S. Effati. "ODT: Optimal deadline-based trajectory for mobile sinks in WSN: A decision tree and dynamic programming approach." *Elsevier Computer Network Journal* (2014). (DOI: 10.1016/j.comnet.2014.12.003)
- ✓ Farzad Tashtarian, M. H. Yaghmaee Moghaddam, and S. Effati. "An Energy-efficient Deadline-based Data Gathering Algorithm IN Hierarchical WSN with Mobile Sink" *Journal of Interconnection Networks* 14.02 (2013)
- ✓ M. H. Yaghmaee Moghaddam, Farzad Tashtarian, and S. Effati. "A New Application-based Approach for Controlling Trajectory of Mobile Sink in Hierarchical Wireless Sensor Network" *Engineering Journal of Islamic Azad University of Mashhad (In Persian)*(2013)
- ✓ Farzad Tashtarian, A.T Haghighat, M.H. Yaghmaee Moghadam, M. Tolou Honary, M. Mazinani, "On global clustering algorithm: layer-oriented approach for multi hop wireless sensor network" *International Review on Computers and Software (IRECOS)* vol. 6, N. 2, , page: 209-220, May (2009).
- ✓ M. Mazinani, M.H. Yaghmaee Moghadam, Farzad Tashtarian M. Tolou Honary and J. Chitizadeh, "On global clustering algorithm: layer-oriented approach for First /Last node dying applications" *International Review on Computers and Software (IRECOS)* vol. 4, N. 2, page: 229-240, March (2009).
- ✓ M. Mazinani, M.H. Yaghmaee Moghadam, M. Tolou Honari, Farzad Tashtarian and J. Chitizadeh, "A new Middleware for multipurpose application wireless sensor networks" *International Review on Computers and Software (IRECOS)*. vol. 4, N. 2, page: 241-253, March (2009).

➤ Conference Papers:

- ✓ Ahmadreza Montazerolghaem, M. H. Yaghmaee Moghaddam, Farzad Tashtarian, "Overload Control in SIP Networks: A Heuristic Approach based on Mathematical Optimization" *Proc. of IEEE Globecom* 2015.

- ✓ F. Almasian, F. Tashtarian, "A New MILP model for determining the Trajectory of Mobile Sink in WSN" , First National Computer Conference, Information and communication technologies, CCITC 2014, Islamic Azad University, Marvdasht Branch, 2014. (In Persian)
- ✓ F. Tashtarian, Mohammad Hossein Yaghmaee Moghaddam, and Sohrab Effati, "Energy efficient data gathering algorithm in hierarchical wireless sensor networks with mobile sink", Computer and Knowledge Engineering (ICCKE), 2012 2nd International eConference on. IEEE, 2012.
- ✓ Hamed Fehri, Farzad Tashtarian, Mohammad Hasan khodashahi, Mostafa Monemizadeh, Mohammad Hossein Yaghmaee Moghaddam, "An Optimized Relay-Based Routing Algorithm with Minimum Energy Consumption in Wireless Sensor Networks", 20th Iranian Conference on Electrical Engineering ICEE 2012, Iran, Tehran 2012 (In Persian)
- ✓ F. Tashtarian, S.M Rouhani, M.H Yaghmaee Moghadam, Hamed Fehri, " Optimizing mobile sink trajectory through Hopfield network in WSN" , accepted for publication in 20th conference on electrical and electronic engineering (icee2012), Tehran, Iran, 2012 (In Persian).
- ✓ Vahide Rafati Porshokook, Abolfazle Toroghi Haghighat, F. Tashtarian, , " Maximizing the Lifetime of Daley-Tolerant Wireless Sensor Networks Using Fuzzy System" , WISM'11 Proceedings of the international conference on Web information systems and mining, Volume Part I, 208-215, September 2011.
- ✓ F. Tashtarian, Hassan Shakeri, M.H. Yaghmaee Moghaddam, A. Ghaemi Bafghi, "Energy Efficient Algorithm for detecting Wormhole attack in WSN" , Proc. Of the First CSUT conference on computer, communication, information Technology, (CSCCIT'11), Tabriz, Iran, 2011 (In Persian).
- ✓ A. Mohebi, F. Tashtarian, M.H. Yaghmaee Moghaddam, M.T. Honary, "EELLER: Energy Efficient-Low Latency Express Routing for Wireless Sensor Networks" Proc. of the The 2nd International Conference on Computer Engineering and Technology (ICCET 2010) ,Chengdu, China, April 2010.
- ✓ M.H. Khodashahi, F. Tashtarian, M.H. Yaghmaee Moghaddam, M.T. Honary, "Optimal Location for Mobile Sink in Wireless Sensor Networks" Proc. of Wireless communication & Networking conference(WCNC2010) ,Australia, April 2010.
- ✓ F. Tashtarian, A. Ghaemi Bafghi, M.H. Yaghmaee Moghaddam, "Utilizing directional antennas for detecting Wormhole Attack in Wireless Sensor Network " ,Proc. Of 7th International ISC Conference on Information Security and Cryptology2010 (ISCISC'10), Tehran, Iran, 2010 (In Persian).
- ✓ F. Tashtarian, Mehdi Yaghoubi, N. Abazari Torghabe, " Smart Police for Vehicles, an Application of Wireless Sensor Network " , Proc. of the second National Conference on Computer/Electrical and IT Engineering (CEIC2009), pp. 362-369, Hamedan, Iran, February 2009 (In Persian).
- ✓ F. Tashtarian, M. Tolou Honary, A.T Haghighat, S.M Mazinani, " Optimal Hop distance for Multi Hop Data Delivery in Wireless Sensor Network" , Proc. Of 16th conference on electrical and electronic engineering, (ICEE'08), Tehran, Iran, 2008 (In Persian).
- ✓ F. Tashtarian, M. Tolou Honary, M. Mazinani, A. Haghighat and J.Chitizadeh, " A New Level Based Clustering Scheme for Wireless Sensor Networks" , Proc. of The sixth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA08), Doha, Qatar, March 2008.
- ✓ H. Raei, M. Sarram, F. Adibniya and F. Tashtarian, "Optimal Distributed Algorithm for Minimum Connected Dominating Sets in Wireless Sensor Networks" , Proc. Of 5th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS 2008) Atlanta, Georgia, September 2008.
- ✓ F. Tashtarian, M. Tolou Honary, M. Mazinani, A. Haghighat and J. Chitizadeh, " An energy efficient data reporting scheme for wireless sensor networks" , Proc. of The sixth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA08), Doha, Qatar, March 2008.

- ✓ H. Shokrzadeh, A.T. Haghighat, F. Tashtarian, A. Nayebe , "Directional rumor routing in wireless sensor networks" , Proc. of third IEEE International Conference in Central Asia on internet the Next generation of mobile, wireless and optical communications networks (ICI2007), Tashkent, September 2007.
- ✓ M. Tolou Honary, J. Chitizadeh and F.Tashtarian, "A Competitive Clustering Scheme for Prolonging the Lifetime of Wireless Sensor Networks" , Proc. of Sixth International Conference on Information, Communications and Signal Processing (ICICS2007), Singapore, December 2007.
- ✓ M. Tolou Honary and F. Tashtarian, "Clustering a wireless sensor network using genetic algorithm" ,Proc. of first joint congress on fuzzy and intelligent systems,IFSS2007,FerdowsiUniv.Mashhad, Iran, August 2007 (In Persian).
- ✓ F. Tashtarian, A. T. Haghighat, Mohsen Tolou Honary, Hamid Shokrzadeh, "A New Energy-Efficient Clustering Algorithm for Wireless Sensor Networks" , Proc. of international Conference on Software, Telecommunications and Computer Networks (SoftCOM2007), Croatia, September 2007.
- ✓ F. Tashtarian, M. Tolou Honary, A. Haghighat and J. Chitizadeh, "A New Energy-Efficient Level-based Clustering Algorithm for Wireless Sensor Networks", Proc. of Sixth International Conference on Information, Communications and Signal Processing (ICICS2007), Singapore, December 2007.
- ✓ Vahid Majid Nejad, A.T Haghighat, F. Tashtarian, "Cluter-based and energy efficient data gathering algorithm for WSN" , Proc. Of 15th conference on electrical and electronic engineering, (ICEE'07), Tehran, Iran, 2007 (In Persian).
- ✓ F. Tashtarian, A.T Haghighat, M. Hajjesmaelian, "A Novel QoS- based Clustering Algorithm for Wireless Sensor Network" , Proc. Of 15th conference on electrical and electronic engineering, (ICEE'07), Tehran, Iran, 2007 (In Persian).
- ✓ F. Tashtarian, A.T Haghighat, N. Abazari Torghbeh, "Prolonging WSN lifetime through an energy efficient algorithm" , Proc. Of 15th conference on electrical and electronic engineering, (ICEE'07), Tehran, Iran, 2007 (In Persian).
- ✓ Vahid Majid Nejad, A.T Haghighat, F. Tashtarian, "A Novel and Energy Efficient Routing Algorithm for Wireless Sensor Network" , Proc. Of 12th int'l CSI Computer Conference, (CSICC'06), Tehran, Iran, 2007 (In Persian).

❖ Teachings

- | | | | |
|---|--------------|----------------------------|--------------------------------------|
| ✓ | 2008-Present | Advanced Computer Networks | (Islamic Azad University of Mashhad) |
| ✓ | 2008-Present | Computer Networks | (Islamic Azad University of Mashhad) |
| ✓ | 2009- 2012 | Multimedia Systems | (Islamic Azad University of Mashhad) |
| ✓ | 2008- 2011 | Database | (Islamic Azad University of Mashhad) |
| ✓ | 2009- 2010 | Data Communication | (Ferdowsi University of Mashhad) |
| ✓ | 2009- 2010 | Computer Networks | (Ferdowsi University of Mashhad) |
| ✓ | 2009- 2010 | Information Technology | (Islamic Azad University of Mashhad) |

❖ Technical Skills

- ✓ Programming
 - Matlab, C, C++, C#.net, Pascal, Java
 - VB.net (Microsoft Certified 'MCP')
 - ASP.net (Microsoft Certified 'MCP')
 - Familiar with Microsoft XNA
 - Parallel Programming (using MPI)
- ✓ Methodologies
 - Object Oriented Programming, Network Programming.
- ✓ Databases
 - Microsoft SQL server (Microsoft Certified 'MCP')
- ✓ Operating Systems
 - Linux, UNIX, Windows, Dos
- ✓ Network simulator
 - Omnet++ (Castalia)
 - Opnet

❖ Technical Specialist

- ✓ IP-PBX Type Approval Laboratory, Technical Specialist, (2009-Present)

❖ Awards and Honors

- ✓ Awarded 1st rank in Ph.D. entrance exam of Ferdowsi University
- ✓ Awarded 1st rank among M.Sc. students in Information Technology, Islamic Azad University of Qazvin, Iran
- ✓ Awarded 4th rank in M.Sc. entrance exam of Islamic Azad University of Qazvin, Iran
- ✓ Awarded 2nd rank among B.Sc. students in Computer Engineering, Islamic Azad University of Mashhad, Iran

❖ Patent

- ✓ " Smart sensor police for vehicles, an application of wireless sensor network", registered in Iran patent office, Tehran, Iran, 2008.

❖ Professionals

- ✓ Member of executive and technical committee of IP-PBX Lab, Ferdowsi University, Mashhad, Iran, 2009-present.
- ✓ Member of reviewers committee of the first International eConference on Computer and Knowledge Engineering (ICCKE2012, ICCKE2014, ICCKE2016,)
- ✓ Member of executive and reviewers committees of the 2nd Conference on Information Technology, Present and Future (ITPF2010,ITFPF2012, ITPF2014)
- ✓ Member of executive Committee of Robocup Iran Open2006, Tehran, Iran, 2006.

❖ References

- ✓ Prof. Mohammad Hossein Yaghmaee Moghaddam, IEEE Senior Member
Full Professor, Department of Computer Engineering
Ferdowsi University of Mashhad, Iran.
Email: yaghmaee@ieee.org

- ✓ Prof. Khosrow Sohraby
Full Professor, Department of Computer Science and Electrical Engineering
University of Missouri-Kansas City, US.
Email: sohrabyk@umkc.edu, ksohraby@yahoo.com

- ✓ Prof. Mahmoud Naghibzadeh
Full Professor, Department of Computer Engineering
Ferdowsi University of Mashhad, Iran.
Email: naghibzadeh@um.ac.ir