

## CURRICULUM VITAE

**Ali Ghaffari, Ph.D.**

**Associate professor in Computer Engineering**

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### Address:

Faculty Member, Associated Professor,  
Department of Computer Engineering  
Islamic Azad University, Tabriz Branch  
Azerbaijan Province, Tabriz, Iran

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## RESEARCH INTERESTS

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Computer networks

- Wireless and mobile networks (WSNs, MANETs, VANETs)
- Internet of things (IoT)
- Software Defined Network (SDN)
- Network security

## LANGUAGES

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Azerbaijani, Turkish, English, Persian

## EDUCATION

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- Ph.D.**                    **Islamic Azad University, Science and Research Branch**, Tehran, Iran  
2007 -2012            Ph.D. in Computer Engineering, Computer architecture  
                             **Dissertation:** QoS based routing scheme for wireless sensor networks (WSNs)  
                             **Supervisor:** Prof. AmirMasoud Rahmani (Islamic Azad University, Science and Research  
                             Branch, Tehran, Iran)
- M.Sc.**                    **Islamic Azad University, Science and Research Branch**, Tehran, Iran  
2000 - 2002            Master of Science in Computer Engineering, Computer Architecture  
                             **Master's Thesis:** *Computer networks managing protocol*  
                             **Supervisor:** Prof. Kayvan navi (Shahid beheshti university, Tehran, Iran)

**B.Sc.**                      **Tehran university**, Tehran, Iran  
**1991 - 1995**            Bachelor of Science in Computer Engineering

## ACADEMIC EXPERIENCE

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**2002 -2012**            **Islamic Azad University, Tabriz Branch**, Tabriz, Azerbaijan Province, Iran  
Instructor in Computer Engineering Department

**2012 - 2018**            **Islamic Azad University, Tabriz Branch**, Tabriz, Azerbaijan Province, Iran  
Assistant Professor in Computer Engineering Department

**2018- present**        **Islamic Azad University, Tabriz Branch**, Tabriz, Azerbaijan Province, Iran  
Associated Professor in Computer Engineering Department

## ADMINISTRATIVE EXPERIENCE

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**2020-present**        - Head of Computer Engineering Department, Islamic Azad University, Tabriz Branch, Tabriz, Azerbaijan Province, Iran.

**2012-2015**            - Head of Computer Engineering Department, Islamic Azad University, Tabriz Branch, Tabriz, Azerbaijan Province, Iran.

**2004-2011**            - IT manager of Tabriz branch, Islamic Azad University, Tabriz, Iran.

**1998-2003**            - IT manager of IDEM (Iranian Diesel Engine Manufacturing company) company, Tabriz, Iran.

## COURSES TAUGHT

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- **Graduate:**

- Advanced computer networks
- Computer networks management
- Advanced computer networks security

- **Undergraduate:**

- Computer networks
- Network security
- Logic circuits
- Wireless networks

## PEER-REVIEWED PUBLICATION

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1. Shirmarz, A., Ghaffari, A., "[Taxonomy of controller placement problem \(CPP\) optimization in Software Defined Network \(SDN\): a survey](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2021, <https://doi.org/10.1007/s12652-020-02754-w>. (Q1, IF: 7.104)
2. Seyfollahi, A., Abeshloo H., Ghaffari, A., "[Enhancing mobile crowdsensing in Fog-based Internet of Things utilizing Harris hawks optimization](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2021: p. 1-16, <https://doi.org/10.1007/s12652-021-03344-0>. (Q1, IF: 7.104)
3. Seyfollahi, A., Ghaffari, A., "[A lightweight load balancing and route minimizing solution for routing protocol for low-power and lossy networks](#)", *Computer Networks*, 2020. 179: p. 107368, <https://doi.org/10.1016/j.comnet.2020.107368>. (Q1, IF: 4.474)
4. Choshin, M., Ghaffari, A., "[An investigation of the impact of effective factors on the success of e-commerce in small-and medium-sized companies](#)", *Computers in Human Behavior*, 2017. 66: p. 67-74, DOI 10.1007/s11276-015-1180-0. (Q1, IF: 6.829)
5. Masoudi, R., Ghaffari, A., "[Software defined networks: A survey](#)", *Journal of Network and computer Applications*, 2016. 67: p. 1-25, <https://doi.org/10.1016/j.jnca.2016.03.016>. (Q1, IF: 6.281)
6. Mousavi, S.K., Ghaffari, A., Besharat, S., Afshari, H., "[Improving the security of internet of things using cryptographic algorithms: A case of smart irrigation systems](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2021. 12(2): p. 2033-2051, <https://doi.org/10.1007/s12652-020-02303-5>. (Q1, IF: 7.104)
7. Mirzaee, S., Ghaffari, A., "[Investigating the impact of information systems on knowledge sharing](#)", *Journal of Knowledge Management*, 2018, <https://doi.org/10.1108/JKM-08-2017-0371>. (Q1, IF: 8.182).
8. Ghaffari, A., "[Hybrid opportunistic and position-based routing protocol in vehicular ad hoc networks](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2020. 11(4): p. 1593-1603, <https://doi.org/10.1007/s12652-019-01316-z>. (Q1, IF: 7.104).
9. Ghaffari, A., "[Congestion control mechanisms in wireless sensor networks: A survey](#)", *Journal of network and computer applications*, 2015. 52: p. 101-115, <https://doi.org/10.1016/j.jnca.2015.03.002>. (Q1, IF: 6.281).
10. Jazebi, S.J., Ghaffari, A., "[RISA: routing scheme for Internet of Things using shuffled frog leaping optimization algorithm](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2020: p. 1-11, <https://doi.org/10.1007/s12652-020-01708-6>. (Q1, IF: 7.104).
11. Tamizi, S. Ghaffari, A., "[Inference search algorithm for optimizing scheduling and minimizing mean tardiness in parallel joint robots](#)", *Journal of Ambient Intelligence and Humanized Computing*, 2019. 10(12): p. 4771-4783, <https://doi.org/10.1007/s12652-018-1155-y>. (Q1, IF: 7.104).
12. Seyfollahi, A. Moodi, M. Ghaffari, A., "[MFO-RPL: A secure RPL-based routing protocol utilizing moth-flame optimizer for the IoT applications](#)", *Journal of Computer Standards & Interfaces*, 2022, 82, 103622. <https://doi.org/10.1016/j.csi.2022.103622>. (Q2, IF: 2.487).
13. Shirmarz, A., Ghaffari, A., 2021. "[A novel flow routing algorithm based on non-dominated ranking and crowd distance sorting to improve the performance in SDN](#)", *Photonic Network Communications*, 42(3), pp.167-183. <https://doi.org/10.1007/s11107-021-00951-x>. (Q2, IF: 2.028).
14. Shirmarz, A. and Ghaffari A., "[Automatic Software Defined Network \(SDN\) Performance Management Using TOPSIS Decision-Making Algorithm](#)", *Journal of Grid Computing*, 2021. 19(2): pp. 1-21, <https://doi.org/10.1007/s10723-021-09557->

- z. (Q2, IF: 3.986).
15. Mousavi, S.K., Ghaffari, A., "[Data cryptography in the Internet of Things using the artificial bee colony algorithm in a smart irrigation system](#)", *Journal of Information Security and Applications*, 2021. 61: p. 102945, <https://doi.org/10.1016/j.jisa.2021.102945>. (Q2, IF: 3.872)
  16. Jafarian, T., Masdari, M., Ghaffari, A., soleimani gharechopogh, F., "[SADM-SDNC: security anomaly detection and mitigation in software-defined networking using C-support vector classification](#)", *Computing*, 2021. 103(4): p. 641-673, <https://doi.org/10.1007/s00607-020-00866-x>. (Q2, IF: 2.220)
  17. Shirmarz, A., Ghaffari, A., "[Performance issues and solutions in SDN-based data center: a survey](#)", *The Journal of Supercomputing*, 2020. 76(10): p. 7545-7593. (Q2, IF: 2.474).
  18. Seyfollahi, A., Ghaffari, A., "[Reliable data dissemination for the Internet of Things using Harris hawks optimization](#)", *Peer-to-Peer Networking and Applications*, 2020. 13(6): p. 1886-1902, <https://doi.org/10.1007/s12083-020-00933-2>. (Q2, 3.307)
  19. Dibaei, M., Ghaffari, A., "[Full-duplex medium access control protocols in wireless networks: a survey](#)", *Wireless Networks*, 2020. 26(4): p. 2825-2843, <https://doi.org/10.1007/s11276-019-02242-w>. (Q2, IF: 2.602).
  20. Mohammadnezhad, M., Ghaffari, A., "[Hybrid routing scheme using imperialist competitive algorithm and RBF neural networks for VANETs](#)", *Wireless Networks*, 2019. 25(5): p. 2831-2849, <https://doi.org/10.1007/s11276-019-01997-6>. (Q2, IF: 2.602).
  21. Okhdar, M., Ghaffari, A., "[English vocabulary learning through recommender system based on sentence complexity and vocabulary difficulty](#)", *Kybernetes*, 2018, <https://doi.org/10.1108/K-06-2017-0198>. (Q2, IF: 2.235).
  22. Vahideh, H., Pourhaji Kazem, A.A., Pourghebleh, B., Ghaffari, A., "[Exploring the state-of-the-art service composition approaches in cloud manufacturing systems to enhance upcoming techniques](#)", *The International Journal of Advanced Manufacturing Technology*, 2019. 105(1-4): p. 471-498, <https://doi.org/10.1007/s00170-019-04213-z>. (Q2, IF: 3.226).
  23. Bagherlou, H., Ghaffari, A., "[A routing protocol for vehicular ad hoc networks using simulated annealing algorithm and neural networks](#)", *The journal of supercomputing*, 2018. 74(6): p. 2528-2552, <https://doi.org/10.1007/s11227-018-2283-z>. (Q2, IF: 2.474).
  24. Ghebleh, R., Ghaffari, a., "[A multi-criteria method for resource discovery in distributed systems using deductive fuzzy system](#)", *International Journal of Fuzzy Systems*, 2017. 19(6): p. 1829-1839, <https://doi.org/10.1007/s40815-016-0274-x>. (Q2, IF:4.673).
  25. Ghaffari, A., "[Real-time routing algorithm for mobile ad hoc networks using reinforcement learning and heuristic algorithms](#)", *Wireless Networks*, 2017. 23(3): p. 703-714, DOI 10.1007/s11276-015-1180-0. (Q2, IF: 2.602).
  26. Oskouei, S.M., Ghaffari, A., "[Designing a new reversible ALU by QCA for reducing occupation area](#)", *The Journal of Supercomputing*, 2019. 75(8): p. 5118-5144, <https://doi.org/10.1007/s11227-019-02788-8>. (Q2, IF: 2.474).
  27. Tavizi, A., Ghaffari, A., "[Tree-based reliable and energy-aware multicast routing protocol for mobile ad hoc networks](#)", *The Journal of Supercomputing*, 2018. 74(11): p. 6310-6332, <https://doi.org/10.1007/s11227-018-2562-8>. (Q2, 2.474).
  28. Mousavi, S.K., Ghaffari, A., Besharat, S., Afshari, H., "[Security of internet of things based on cryptographic algorithms: a survey](#)", *Wireless Networks*, 2021. 27(2): p. 1515-1555, <https://doi.org/10.1007/s11276-020-02535-5>. (Q2, 2.602).
  29. Seyfollahi, A., Ghaffari, A., "[Review of Intrusion Detection Systems in RPL Routing Protocol Based on Machine Learning for Internet of Things Applications](#)",

- Wireless Communications and Mobile Computing*, 2021. 2021, <https://doi.org/10.1155/2021/8414503>. (Q3, IF: 2.336).
30. Sefati, S., Abdi M., Ghaffari, A., "[Cluster-based data transmission scheme in wireless sensor networks using black hole and ant colony algorithms](#)", *International Journal of Communication Systems*, 2021. 34(9): p. e4768, <https://doi.org/10.1002/dac.4768>. (Q3, IF: 2.047).
  31. Mousavi, S.K., Ghaffari, A., Besharat, S., Afshari, H., "[Security of Internet of Things using RC4 and ECC Algorithms \(Case Study: Smart Irrigation Systems\)](#)", *Wireless Personal Communications*, 2021. 116(3): p. 1713-1742, <https://doi.org/10.1007/s11277-020-07758-5>. (Q4, IF: 1.671).
  32. Jafarian, T., Masdari, M., Ghaffari, A., Soleimani Gharechopogh, F., "[A survey and classification of the security anomaly detection mechanisms in software defined networks](#)", *Cluster Computing*, 2021. 24(2): p. 1235-1253, <https://doi.org/10.1007/s10586-020-03184-1>. (Q3, IF: 1.809)
  33. Mousavi, S.K., Ghaffari, A., "[Cluster-based Coverage Scheme for Wireless Sensor Networks using Learning Automata](#)", *Journal of Information Systems and Telecommunication (JIST)*, 2021. 3(35): p. 197, 10.52547/jist.9.35.197.
  34. Shirmarz, A., Ghaffari, A., "[An autonomic Software Defined Network \(SDN\) architecture with performance improvement considering](#)", *Information Systems & Telecommunication*, 2020: p. 121.
  35. Shirmarz, A., Ghaffari, A., "[An adaptive greedy flow routing algorithm for performance improvement in software-defined network](#)", *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 2020. 33(1): p. e2676. (Q3, IF: 1.296).
  36. Samadi Bonab, M., Ghaffari, A., Soleimani gharechopogh, F., "[A wrapper-based feature selection for improving performance of intrusion detection systems](#)", *International Journal of Communication Systems*, 2020. 33(12): p. e4434, <https://doi.org/10.1002/dac.4434>. (Q3, IF: 2.047)
  37. Jafarian, T., Masdari, M., Ghaffari, A., Soleimani Gharechopogh, F., "[Security anomaly detection in software-defined networking based on a prediction technique](#)", *International Journal of Communication Systems*, 2020: p. e4524, <https://doi.org/10.1002/dac.4524>. (Q3, IF:2.047)
  38. Mahdavi, A., Ghaffari, A. "[Embedding Virtual Machines in Cloud Computing Based on Big Bang–Big Crunch Algorithm](#)", *Journal of Information Systems and Telecommunication (JIST)*, 2020. 4(28): p. 305, 10.7508/jist.2019.04.006.
  39. Shirmarz, A., Ghaffari, A., "[An Autonomic Software Defined Network \(SDN\) Architecture With Performance Improvement Considering](#)", *Journal of Information Systems and Telecommunication (JIST)*, 2020. 2(30): p. 121.
  40. Akhbari, A., Ghaffari, A., "[Selfish node Detection Based on Fuzzy Logic and Harris Hawks Optimization Algorithm in IoT Networks](#)", *Security and Communication Networks*, 2021. <https://doi.org/10.1155/2021/2658272>. (Q4, IF:1.791)
  41. Tabibi, S., Ghaffari, A., "[Energy-efficient routing mechanism for mobile sink in wireless sensor networks using particle swarm optimization algorithm](#)", *Wireless Personal Communications*, 2019. 104(1): p. 199-216, <https://doi.org/10.1007/s11277-018-6015-8>. (Q4, IF: 1.671).
  42. Mosavvar, I., Ghaffari, A., "[Data aggregation in wireless sensor networks using firefly algorithm](#)", *Wireless Personal Communications*, 2019. 104(1): p. 307-324, <https://doi.org/10.1007/s11277-018-6021-x>. (Q4, IF: 1.671).
  43. Mohammadi, P. , Ghaffari, A., "[Defending Against Flooding Attacks in Mobile Ad-Hoc Networks Based on Statistical Analysis](#)", *Wireless Personal Communications*, 2019. 106(2). (Q4, IF: 1.671).
  44. Beheshtiasl, A., Ghaffari, A., "[Secure and trust-aware routing scheme in wireless](#)

- [sensor networks](#)", *Wireless Personal Communications*, 2019. 107(4): p. 1799-1814, <https://doi.org/10.1007/s11277-019-06357-3>. (Q4, IF: 1.671).
45. Pourakbar, H., Ghaffari, A., "[Reliable and Real-Time End-to-End Delivery Protocol in Wireless Sensor Networks](#)", arXiv preprint arXiv:1803.03958, 2018.
  46. Parsavand, H., Ghaffari, A., "[Controlling congestion in wireless sensor networks through imperialist competitive algorithm](#)", *Wireless Personal Communications*, 2018. 101(2): p. 1123-1142, <https://doi.org/10.1007/s11277-018-5752-z>. (Q4, IF: 1.671).
  47. Mottaghinia, Z., Ghaffari, A., "[Fuzzy logic based distance and energy-aware routing protocol in delay-tolerant mobile sensor networks](#)", *Wireless Personal Communications*, 2018. 100(3): p. 957-976, <https://doi.org/10.1007/s11277-018-5360-y>, <https://doi.org/10.1007/s11277-018-5360-y>. (Q4, IF:1.671).
  48. Mosavvar, H., Ghaffari, A., "[Detecting faulty nodes in wireless sensor networks using harmony search algorithm](#)", *Wireless Personal Communications*, 2018. 103(4): p. 2927-2945, <https://doi.org/10.1007/s11277-018-5981-1>. (Q4, 1.671).
  49. Khabiri, M., Ghaffari, A., "[Energy-aware clustering-based routing in wireless sensor networks using cuckoo optimization algorithm](#)", *Wireless Personal Communications*, 2018. 98(3): p. 2473-2495, <https://doi.org/10.1007/s11277-017-4983-8>. (Q4, IF: 1.671).
  50. Ghasemnezhad, S., Ghaffari, A., "[Fuzzy logic based reliable and real-time routing protocol for mobile ad hoc networks](#)", *Wireless Personal Communications*, 2018. 98(1): p. 593-611, <https://doi.org/10.1007/s11277-017-4885-9>. (Q4, 1.671).
  51. Ghaffari, A., Rahmani, A.M., Bannaiean, H.R., "[Localized quality of service routing protocol with service differentiation for wireless sensor networks](#)", *IEICE Electronics Express*, 2011. 8(18): p. 1498-1504, <https://doi.org/10.1587/elex.8.1498>. (Q4, IF:0.578).
  52. Ghaffari, A., Rahmani, A., Khademzadeh, A., "[Energy-efficient and QoS-aware geographic routing protocol for wireless sensor networks](#);", *IEICE Electronics Express*, 2011. 8(8): p. 582-588, <https://doi.org/10.1587/elex.8.582>. (Q4, IF:0.578)
  53. Pakmehr, A., Ghaffari, A., "[Coverage Improving with Energy Efficient in Wireless Sensor Networks](#)", *Journal of Information Systems and Telecommunication (JIST)*, 2017. 5(1): p. 57-65, .
  54. Nikokheslat, H., Ghaffari, A., "[Protocol for controlling congestion in wireless sensor networks](#)", *Wireless Personal Communications*, 2017. 95(3): p. 3233-3251, <https://doi.org/10.1007/s11277-017-3992-y>. (Q4, IF:1.671).
  55. Kamalinia, A., Ghaffari, A., "[Hybrid task scheduling method for cloud computing by genetic and DE algorithms](#)", *Wireless personal communications*, 2017. 97(4): p. 6301-6323, <https://doi.org/10.1007/s11277-017-4839-2>. (Q4, IF:1.671).
  56. Ghaffari, A., Babaei, M., "[An Algorithm to Enhance Cache Efficiency in Multi-core Processors](#)", *Majlesi Journal of Electrical Engineering*, 2017. 11(2).
  57. Dibaei, M., Ghaffari, A., "[TSIS: a trust-based scheme for increasing security in wireless sensor networks](#)", *Majlesi Journal of Electrical Engineering*, 2017. 11(4): p. 45-52.
  58. Mottaghinia, Z., Ghaffari, A., "[A unicast tree-based data gathering protocol for delay tolerant mobile sensor networks](#)", *Journal of Information Systems and Telecommunication (JIST)*, 2016. 1(13): pp. 59-69, 10.7508/jist.2016.01.008.
  59. Mohsenifard, E., Ghaffari, A., "[Data aggregation tree structure in wireless sensor networks using cuckoo optimization algorithm](#)", *Information Systems & Telecommunication*, 2016. 4(3): p. 182-190.
  60. Khani, M., Ghaffari, A., "[A New Scheme for Detecting and Preventing Gray Hole Attacks in Mobile Ad Hoc Networks](#)", *International Journal of Computer Science and Information Security*, 2016. 14(5): pp. 475-498.
  61. Khangah, N.S., Ghaffari, A., "[Congestion Control in Wireless Sensor Networks](#)

- [Using Genetic Algorithm](#)", *International Journal of Computer Applications Technology and Research* Volume 5, 2016(6): pp. 353-357.
62. Keykhosravi, D., **Ghaffari, A.**, "[A Novel Clustering Method in WSNs by Hybridizing Honey Bee and Learning Automata Methods](#)", *International Journal of Computer Science and Information Security*, 2016. 14(5): p. 331.
  63. Kamalinia, A., **Ghaffari, A.**, "[Hybrid task scheduling method for cloud computing by genetic and PSO algorithms](#)", *Journal of Information Systems and Telecommunication*, 2016. 4, pp. 271-281.
  64. **Ghaffari, A.**, "[Using network coding in wireless sensor networks routing protocol](#)", *Journal of Soft Computing and Information Technology*, 2016. 5(2): p. 12-18.
  65. Mohammadi, R. , **Ghaffari, A.**, "[Optimizing reliability through network coding in wireless multimedia sensor networks](#)", *Indian Journal of Science and Technology*, 2015. 8(9): p. 834, DOI: 10.17485/ijst/2015/v8i9/56039.
  66. Nobahary, S. , **Ghaffari, A.**, "[FDMG: Fault detection method by using genetic algorithm in clustered wireless sensor networks](#)" *Journal of AI and Data Mining*, 2015. 3(1): p. 47-57.
  67. Azari, L. , **Ghaffari, A.**, "[Proposing a novel method based on network-coding for optimizing error recovery in wireless sensor networks](#)", *Indian Journal of Science and Technology*, 2015. 8(9): p. 859-867, DOI: 10.17485/ijst/2015/v8i9/54915.
  68. Amini, E., , **Ghaffari, A.**, "[A New Architecture for Enterprise Resource Planning Systems Based on a Combination of Event-based Software Architecture and Service-oriented Architecture](#)", *Indian Journal of Science and Technology*, 2015. 8(2): p. 108, DOI: 10.17485/ijst/2015/v8i2/57773.
  69. Maleki, I. , **Ghaffari, A.**, Masdari, M., "[A new approach for software cost estimation with hybrid genetic algorithm and ant colony optimization](#)", *International Journal of Innovation and Applied Studies*, 2014. 5(1): p. 72.
  70. **Ghaffari, A.**, "[Designing a wireless sensor network for ocean status notification system](#)", *Indian Journal of Science and Technology*, 2014. 7(6): p. 809.
  71. **Ghaffari, A.**, "[An energy efficient routing protocol for wireless sensor networks using A-star algorithm](#)", *Journal of applied research and technology*, 2014. 12(4): p. 815-822, [https://doi.org/10.1016/S1665-6423\(14\)70097-5](https://doi.org/10.1016/S1665-6423(14)70097-5).
  72. Khanli, L.M., M.E. Far, and A. Ghaffari, [Reliable job scheduler using RFOH in grid computing](#). *Journal of Emerging Trends in Computing and Information Sciences*, 2010. 1(1): p. 43-47.

**International  
& National  
Conference  
Papers**

1. Shirmarz, A., **Ghaffari, A.**, "Mohammadi, R. and Akleylek, S., 2021, December. DDOS Attack Detection Accuracy Improvement in Software Defined Network (SDN) Using Ensemble Classification", In *2021 International Conference on Information Security and Cryptology (ISCTURKEY)* (pp. 111-115). IEEE.
2. Roshanzadeh, M., **Ghaffari, A.**, Saqaeyan, S., "[Using residue number systems for improving QoS and error detection & correction in wireless sensor networks](#)", in *2011 IEEE 3rd International Conference on Communication Software and Networks*. 2011. IEEE. *Data Processing*, Tabriz, Iran, October 2018, (In Persian).
3. Kazem, A.A.P., Beyrami, R.F., **Ghaffari, A.**, "[A new approach for query decomposition and optimization in multi-sink wireless sensor networks](#)", in *Proc. of the 10th IASTED International Conference on Parallel and Distributed Computing and Networks*, 2011.
4. Bagheri, T., **Ghaffari, A.**, S.R. Heikalabad, A.R., "[RCMP: Reliable clustering based multi-path routing algorithm for wireless sensor networks](#)", in *The 5th International Conference on New Trends in Information Science and Service*

- Science. 2011. IEEE.
5. Bagheri, T., **Ghaffari, A.**, "[Recm: Reliable and energy effective clustering based multi-path routing algorithm for wireless sensor networks](#)", in 2011 World Congress on Information and Communication Technologies. 2011. IEEE.
  6. Hamrahi, Z., **Ghaffari, A.**, Rasi, T., "[MPRGQ: Multi-path routing algorithm to guarantee to achieve the required QoS of wireless sensor networks](#)", in 2010 International Conference on Signal and Image Processing. 2010. IEEE.
  7. **Ghaffari, A.**, Nematy, F., Rahmani, N., "[Redeployment of cluster heads in wireless sensor networks with genetic algorithm](#)", in 2010 IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA). 2010. IEEE.
  8. Babaie, S., **Ghaffari, A.**, "[CCGA: Clustering based on cluster head with genetic algorithm in wireless sensor network](#):", in 2010 International Conference on Computational Intelligence and Communication Networks, 2010. IEEE.
  9. Babaie, S., **Ghaffari, A.**, "[HCAP: Hamming Code with Additional Parity Method for Error Control in Wireless Sensor Networks](#)", in 2010 International Conference on Intelligent Network and Computing (ICINC 2010), 2010.
  10. Alizadeh, S. , **Ghaffari, A.**, "[An Energy-efficient hirerchical Clustering protcole in wireless sensor networks](#)", in 2010 3rd International Conference on Computer Science and Information Technology, 2010, IEEE.
  11. **Ghaffari, A.**, Rahmani, A., "[Fault tolerant model for data dissemination in wireless sensor networks](#)", in 2008 International Symposium on Information Technlogy. 2008. IEEE.
  12. **Ghaffari, A.**, "[Security and threats of Mobile Ad Hoc Networks](#)" WSEAS Transactions on Communications, 2006. 5(11).
  13. **Ghaffari, A.**, "[Vulnerability and security of mobile ad hoc networks](#)", in Proceedings of the 6th WSEAS international conference on simulation, modelling and optimization. 2006.
  14. **Ghaffari, A.**, "[Connecting mobile ad hoc networks to internet](#)", in Proceedings of the 4th WSEAS International Conference on Telecommunications and Informatics, 2005.

**Books and  
Book  
Chapters**

1. Shiri, A., Ghorbani, H., **Ghaffari, A.**, "[Computer networks \(in Persian\)](#)". Islamic Azad University of Tabriz, ISBN:964-978-10-5673-7, 2010.
2. Aghaei, B., **Ghaffari, A.**, "[Fundamental of computer engineering \(in Persian\)](#)", Islamic Azad University of Malekan, 2015.

**ACADEMIC SERVICE (Reviewer)**

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**Reviewer**

- Future Generation Computing System (FGCS) (ISI JCR, Elsevier)
- Journal of Supercomputing (ISI JCR, Springer)
- Computer Networks (ISI JCR, Elsevier)
- Ad Hoc Networks (ISI JCR, Elsevier)
- Measurement (ISI JCR, Elsevier)
- International journal of communication systems (IJCS) (ISI JCR, Wiley)
- IEEE Access (ISI JCR, IEEE)
- IEEE Transactions on Vehicular Technology (ISI JCR, IEEE)
- IEEE/ACM Transactions on Networking (ISI JCR, IEEE/ACM)
- IEEE Transactions on Industrial Informatics (ISI JCR, IEEE)



- IEEE Internet of things journal (ISI JCR, IEEE)
- Journal of ambient and humanized computing (ISI JCR, Springer)
- Wireless Networks (ISI JCR, Springer)
- Wireless personal communication (ISI JCR, Springer)
- IET Communication (ISI JCR, IET)
- International journal of communication systems (ISI JCR, Johnwiley)

## SOME OF THE CURRENT AND FORMER SUPERVISED STUDENTS

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### Ph.D. Students:

#### Ph.D. Students

	Student Name	Thesis Title
1	Alireza shirmarz, 2020	Design and Implementation of a novel Model for Performance Improvement in SDN
2	Tohid jafarian, 2020	security anomaly detection and mitigation in software-defined networks
3	Maryam samadi, 2020	A Wrapper-based Feature Selection for improving performance of Intrusion Detection Systems
4	Behbood kheradmand, 2021	Cluster-based real time routing scheme for VANETs using metaheuristic algorithm
5	Seyyed keyvan mousavi, 2021	Security of internet of things based on cryptographic algorithms
6	Hossein asgharzadeh, present	Multi-objective-based Intrusion detection system for IoT
7	Saba mahdipoor, Present	Semantic retrieval based on information retrieval on social networking websites

### MSc. Students:

#### Masters Students

	Student Name	Thesis Title
1	Ali Seyfollahi, 2019	lightweight load balancing and route minimizing solution for routing protocol for low-power and lossy networks
2	Mahdi Dibaei, 2016	Full-duplex medium access control protocols in wireless network
3	Saeed jazebi' 2019	routing scheme for Internet of Things using shuffled frog leaping optimization algorithm
4	Azam Beheshti, 2016	Secure and trust-aware routing scheme in wireless sensor networks
5	Saeed oskoei, 2017	Designing a new reversible ALU by QCA for reducing occupation area
6	Mojtaba mohammadnezhad, 2017	Hybrid routing scheme using imperialist competitive algorithm and RBF neural networks for VANETs
7	Payam mohammadi, 2017	Defending Against Flooding Attacks in Mobile Ad-Hoc Networks Based on Statistical Analysis.

8	Shamineh Tabbibi, 2018	Energy-efficient routing mechanism for mobile sink in wireless sensor networks using particle swarm optimization algorithm
9	Islam mosavvar, 2018	Data aggregation in wireless sensor networks using firefly algorithm
10	Hassan parsavand, 2018	Detecting faulty nodes in wireless sensor networks using harmony search algorithm
11	Amir tavizi, 2017	Tree-based reliable and energy-aware multicast routing protocol for mobile ad hoc networks
12	Hossein bagherloo, 2018	A routing protocol for vehicular ad hoc networks using simulated annealing algorithm and neural networks
13	Zeynab mottaghinia, 2015	Fuzzy logic-based distance and energy-aware routing protocol in delay-tolerant mobile sensor networks
14	Melika khabiri, 2017	Energy-aware clustering-based routing in wireless sensor networks using cuckoo optimization algorithm
15	Solmaz ghasemnezhad, 2016	Fuzzy logic based reliable and real-time routing protocol for mobile ad hoc networks
16	Hossein nikokheslat, 2016	Protocol for controlling congestion in wireless sensor networks
17	Ramin mohammadi, 2014	Optimizing reliability through network coding in wireless multimedia sensor networks
18	Amin kamalinia, 2016	Hybrid task scheduling method for cloud computing by genetic and DE algorithms
19	Hadi mosavvar, 2015	Detecting faulty nodes in wireless sensor networks using harmony search algorithm
20	Afshin mohammadi, 2018	Embedding Virtual Machines in Cloud Computing Based on Big Bang–Big Crunch Algorithm
21	Saman tamizi, 2016	Inference search algorithm for optimizing scheduling and minimizing mean tardiness in parallel joint robots
22	Mahdi choshin, 2017	An investigation of the impact of effective factors on the success of e-commerce in small-and medium-sized companies
23	Sayyad alizadh, 2009	An Energy-efficient hierarchical Clustering protocol in wireless sensor networks
24	Rahim masoudi, 2015	QoS-baser routing scheme for SDN
25	Somayyeh mirzaei	Investigating the impact of information systems on knowledge sharing

## Skills and Expertise

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- Windows server
- Structure cabling
- C/ C++, MS Office, ICDL
- Computer networks tools

## HONORS & AWARDS

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- Best researcher from engineering Faculty, 2010
- Best researcher from engineering Faculty, 2011
- Best researcher from engineering Faculty, 2012
- Best researcher from engineering Faculty, 2018

## REFERENCES

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**1. AmirMasoud Rahmani (Ph.D. Thesis Supervisor)**

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**2. Seyyed Hamid Haj seyed javadi (Ph.D. Thesis Advisor)**

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