Curriculum Vitae

2th Km of Saman, Shahrekord University,
Shahrekord, Iran.

Mehdi Kadivar

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Education

Doctor of Philosophy: Oct. 2004 to Sept. 2009**,** Amirkabir University of technology, Tehran;

- Topology Control in Wireless Ad Hoc Networks considering Mobility and Residual Energy of the Nodes, Dr. Dehghan Takht Fooladi and Dr. M. E. Shiri and Mehdi .

Master of Science: Sept. 2002 to Oct. 2004, Shahid Bahonar University of Kerman, Kerman.

- Location Problems on Fuzzy Networks, Prof. M. Mashinchi.

Bachelor of Science: oct. 1998 to Sept. 2002, University of Yazd, Yazd.

Research activities are focused on the following themes:

- Fault tolerance
  - System-level diagnosis
  - Operative diagnosis
- Combinatorial Mathematics
  - Scheduling
  - Flow Problems
  - Location Problems
- Wireless ad hoc networks *
  - Topology control and range assignment problem
  - Evaluation of network lifetime
  - Energy efficient cooperative strategies
  - Mobility modeling
  - Vehicular ad hoc networks
  - P2P protocols for wireless networks

Publications

Journal Papers:

1- Mehdi Kadivar, M. E. Shiri and Mehdi Dehghan, Distributed topology control algorithm based on one- and two-hop neighbors' information for ad hoc networks, Computer Communications, Volume 32 , Issue 2 (February 2009) Pages: 368-375.

2- Mehdi Kadivar, Neda Mohammadi, A maximum clique based approximation algorithm for wireless link scheduling under SINR model, Journal of Computer and System Sciences, 129 (2022), pp. 72-89, https://doi.org/10.1016/j.jcss.2022.05.001.

3- N. Mohammadi and M. Kadivar, TSLS and TSLSU: Two Novel Approximation SINR-based Shortest Link Scheduling Algorithms in Wireless Networks, IEEE Transactions on Vehicular Technology, (2025), Accepted.

4- N. Mohammadi and M. Kadivar, PDSLS: An Approximation SINR-based Shortest Link Scheduling Algorithm with Power Control, Computer Communications, (2025), Vol. 236, 108137.

5- Mehdi Kadivar, An efficient algorithm for solving the problem of fair channel allocation to users in wireless networks, Computing Science Journal, 9 3 (2024), pp. 64-74.

6- N. Mohammadi and M. Kadivar, "NK-MaxClique and MMCQ: Two New Exact Branch and Bound Algorithms for the Maximum Clique Problem," in *IEEE Access*, 8 (2020), pp. 180045-180053, doi: 10.1109/ACCESS.2020.3028112.

7- N. Mohammadi and M. Kadivar, "A local core number based algorithm for the maximum clique problem," Transactions on Combinatorics, 10 3 (2021): pp. 149-163, doi: 10.22108/toc.2021.120153.1686.

8- M. Kadivar, "A new O(m+kn log d) algorithm to find the k shortest paths in acyclic digraphs," Transactions on Combinatorics, 5 3 (2016): pp. 23-31, doi: 10.22108/toc.2016.12602

9- Mehdi Kadivar, M. E. Shiri and Mehdi Dehghan, Distributed topology control algorithm based on one- and two-hop neighbors' information for ad hoc networks, Computer Communications, 32 2 (2009): pp. 368-375.

10- Mehdi Kadivar, M. E. Shiri and Mehdi Dehghan, An adaptive MST-based topology control algorithm for wireless ad-hoc networks, Int. J. of Communication Networks and Distributed Systems, 6 1, (2011): pp.79-96.

11- Mehdi kadivar, An Adaptive Yao-based topology control algorithm for wireless ad-hoc networks, Ad-Hoc networks, 6 3 (2015): pp. 274-283.

12- A. Pak, M. Kadivar, Parameter estimation for Exponential distribution based on doubly type II censoring from imprecise data, International Journal of Mathematics and Statistics, 17, (2016): pp-64-74.

Conference papers:

1- M. Kadivar, "An Adaptive Yao-based topology control algorithm for wireless ad-hoc networks," *2020 10th International Conference on Computer and Knowledge Engineering (ICCKE)*, Mashhad, Iran, 2020, pp. 457-462, doi: 10.1109/ICCKE50421.2020.9303711.

2- M. Kadivar, AN O(M + N) MAXIMUM FLOW ALGORITHM FOR ACYCLIC NETWORKS, Colourings, Independence and Domination GRAPH THEORY CID 2017, September 18-23, 2011, Szklarska Poreba, Poland, pp. 14-21.

3- M. Kadivar, A new algorithm to find k shortest s-t path in digrapgs, The 3rd Gdańsk Workshop on Graph Theory**,** September 16-18, 2015, Poland, pp. 112-113.

4- N. Mohammadi and M. Kadivar, Scheduling wireless links in the physical interference model, 2th International Conference on Combinatorics, Cryptography and Computation, Tehran, Iran University of Science& Technology, Tehran, 2017, pp. 145-150.

5- M. Kadivar, N. Mohammadi, A Bisection Algorithm for the Maximum Clique Problem, 50th Iranian mathematical conference, Shiraz, 2019.

6- M. Kadivar, Finding the arc- and non arc- disjoint paths in networks, IPM Combinatorics and Computing Conference 2015 (IPMCCC2015)", "April 29-30, 2015".

7- F. Sahafipour, R. Javidan and M. kadivar, Hybrid Interactions in Pervasive Computing Settings, IEEE ITS Telecommunications (ITST), 2011 11th International Conference on Digital Object Identifier: 10.1109/ITST.2011.6060126, Publication Year: 2011 , Page(s): 596 - 599

8- F. Sahafipour, R. Javidan and M. kadivar, A Comparative Study on Context Modeling Approaches, 5thSASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

9- M. Kadivar, A new augmenting path based symbolic algorithm for maximum flow 0-1 networks, 5th Iranian Conference on Applied Mathematics September 2-4, 2013 Bu-Ali Sina University, pp. 701-705.

10- Sulmaz Babadi , Mehdi Kadivar and Mohammad Reza Rismanchian, Characterization of Z3-connected and non-Z3-connectivity of graphs, The 44th Annual Iranian Mathematics Conference 27-30 August 2013, Ferdowsi University of Mashhad, Iran, pp. 92-95.

11- Sulmaz Babadi , Mehdi Kadivar and Mohammad Reza Rismanchian, Group connectivity number of strong and Cartesian product of two connected nontrivial graphs, 2th Iranian Conference on Algebric graph theory, September 2-4, 2013 Bu-Ali Sina University, pp. 6-8.

Accept Letter 1:

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موضوع: ' IEEE TVT - Decision on VT-2024-04093- Accepted with Minor Revisions as a Paper

Dear Dr. Kadivar:

I am pleased to inform you that your paper:

VT-2024-04093: TSLS and TSLSU: Two Novel Approximation SINR-based Shortest Link Scheduling Algorithms in Wireless Networks

has been accepted for publication as a regular paper in the IEEE Transactions on Vehicular Technology.

Please submit a Latex file of your manuscript as a revision to VT-2024-04093 (not a new paper.
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Sincerely yours,

Giuseppe Araniti
Editor, IEEE Transactions on Vehicular Technology