Jafar Fathali

Professor

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Fields of Research

Operations Research, Location Theory, Scheduling Problem, Heuristic Methods

for Optimization Problems.

Educations

BSc in Applied Mathematics, Ferdowsi University of Mashhad, Iran, 1996.

MSc in Applied Mathematics, Amirkabir University of Technology, Iran, 1999.

Ph.D in Applied Mathematics, Ferdowsi University of Mashhad, Iran, 2005.

Teaching Experiences

Operations Research I & II, Advanced Operations Research I & II,

Advanced Linear Programming, Nonlinear Programming, Numerical Analysis I,

Advanced Numerical Analysis, Calculus I, Differential Equation, Location Theory,
Combinatorial Optimization.

Societies Membership

Iranian Mathematical Society, Iranian Operations Research Society,

Iranian Statistics Society.

Referee for Journals

European Journal of Operational Research, Computers & Operations Research, Discrete Applied Mathematics, Transportation Research Part E, Optimization Methods and Software, Soft Computing, Journal of Computational and Applied Mathematics, Applied Mathematics Letters, Neural Computing and Applications, International Journal of Operations Research, Journal of Advanced Research in Computer Science, Journal of Mathematical Modeling, Iranian Journal of Operations Research, Control and Optimization in Applied Mathematics, Communications in Combinatorics and Optimization.

Publications

1- Fathali J. and H. T. Kakhki, "Solving the p-Median Problem with Pos/Neg Weights by Variable Neighborhood Search and Some Results for Special Cases", European Journal of Operational Research, 170: 440-462, 2006.

2- Fathali J., H. T. Kakhki and R. E. Burkard, "An ant colony algorithm for the pos/neg weighted p-median problem." Central European Journal of Operations Research, 14: 229-246, 2006.

3- Fathali J. "A genetic algorithm for the p-median problem with pos/neg weights", Applied Mathematics and Computation, 183: 1071-1083, 2006.

4- Burkard R. E., J. Fathali and H. T. Kakhki, " The p-maxian problem on a tree." Operations Research Letters, 35: 331-335, 2007.

5- Burkard R. E., J. Fathali, "A polynomial method for the pos/neg weighted 3-median problem on a tree", Mathematical Methods of Operations Research, 65: 229-238, 2007.

6- Fathali J., M. Zaferanieh, A. Nezakati, "A BSSS algorithm for the location problem with minimum square error", Advances in Operations Research, 2009, 10 pages.

7- Zaferanieh M., J. Fathali, "Ant colony and simulated annealing algorithms for finding the core of a graph", World Applied Science Journal, 7 (10): 1335-1341, 2009.

8- Jamalian A., J. Fathali, "Linear Programming for the Location Problem with Minimum Absolute Error", World Applied Science Journal, 7(11): 1423-1427, 2009.

9- Mirjalali F., Fathali J., "Location of the Airport of Semnan Province by Using TOPSIS and Center Problem", Journal of Transportation Research, Vol 6, No 4, pp. 341-450, 2010.

10- Fathali J., Jafari Rad N., Rahimi Sherbaf S., "Unweighted p-center problem on extended stars", Iranian Journal of Optimization, Vol 2, No 1, 2010.

11- Fathali J., Zaferanieh M., "Location problems in regions with lp and block norms", Iranian Journal of Operations Research, Vol 2, No 2, pp. 72-87, 2011.

12- Zaferanieh M., J. Fathali, "Finding a core on a tree with pos/neg weight", Mathematical Methods of Operations Research, 76: 147-160, 2012.

13- Fathali J., Jamalian A., "Locating Multiple Facilities in Convex Sets with Fuzzy Data and Block Norms", Applied Mathematics, 3: 1950-1958, 2012.

14- Golpayegani M., Fathali J., Khosravian E., "Median line location problem with positive and negative weights and Euclidean norm", *Neural Computing and Applications*, 24: 613–619, 2014.

15- Fathali J., Jafari Rad N. and Rahimi Sherbaf S., "The p-median and p-center problems on bipartite graphs", Iranian Journal of Mathematical Sciences and Informatics, Vol 9, No 2: 34-43, 2014.

16- Fathali J., "Backup multifacility location problem with lp norm", OPSEARCH, vol 52, NO. 2, pp. 382–391, 2015.

17- Motevalli S., Fathali J., Zaferanieh M., "An efficient algorithm for finding the semi-obnoxious (k,l)-core of a tree", Journal of Mathematical Modeling, Vol 3, No 2, pp. 129-144, 2016.

18- Taleshian F., Fathali J., "A Mathematical Model for Fuzzy p-Median Problem with Fuzzy Weights and Variables", Advances in Operations Research, Article ID 937868, 2016.

19- Motevalli S., Fathali J., "A Linear Algorithm for Finding Core of Weighted Interval Trees", Journal of Operational Research and Its Applications 13 (2), 101-111, 2016.

20- Rahbari M., Fathali J., Mortazavi R., "A hybrid algorithm for the path center problem" Global Analysis and Discrete Mathematics, 1 (2), 83-92, 2016.

21- Golpayegani M., Fathali J., Moradi H., "A particle swarm optimization method for semi-obnoxious line location problem with rectilinear norm", Computers & Industrial Engineering, 109: 71-78, 2017.

22- Fathali J., Jamalian A., "Efficient methods for goal square Weber location problem"' Iranian Journal of Numerical Analysis and Optimization 7 (1), 65-82, 2017.

23- Moshtagh M., Fathali J., Smith J.M.G., "The Stochastic Queue Core problem, evacuation networks, and state-dependent queues", European Journal of Operational Research, 269 (2), 730-748, 2018.

24- Taleshian F., Fathali J., Taghi-nezhad N. A., "Fuzzy majority algorithm for finding the median of a fuzzy tree", Fuzzy Information and Engineering, 10 (2), 225-248, 2018.

25- Erfani K., Rahimi S., Fathali J., "New variable neighborhood search method for minimum sum coloring problem on simple graphs", Iranian Journal of Numerical Analysis and Optimization, 8 (2), 39-54, 2018.

26- Nazari M., Fathali J.,Nazari M., Varedi-Koulaei S. M., "Inverse of Backup 2-Median Problems with Variable Edge Lengths and Vertex Weight on Trees and Variable Coordinates on the Plane", Production and Operations Management, 9 (2), 115-137, 2018.

27- Nazari M., Fathali J., "Reverse backup 2-median problem with variable coordinate of vertices", Journal of Operational Research and Its Applications, 15 (2), 63-88, 2018.

28- Sayar T., Fathali J., Ghiyasi M., "The problem of balancing allocation with regard to the efficiency of servers", Iranian Journal of Operations Research, 9 (1), 29-47, 2018.

29- Moshtagh M., Fathali J., Smith J. M.G., Mahdavi-Amiri N., "Finding an optimal core on a tree network with M/G/c/c state-dependent

queues", Mathematical Methods of Operations Research, 89(2), 115-142, 2019.

30- Motevalli S., Fathali J., "On the finding 2-(k,l)-core of a tree with arbitrary real weight", Iranian Journal of Numerical Analysis and Optimization, 9(1), 93-104, 2019.

31- Soleimani A., Fathali J., Nazari M., "Single facility goal location problems with Lp norm", Modern Researches in Decision Making, 3 (4), 125-150, 2019.

32- Nazari M., Fathali J., "Solution of Backup Multifacility Location Problem by Considering the Ideal Radius for each Customer", JOURNAL OF NEW RESEARCHES IN MATHEMATICS, 5 (21), 93-104, 2019.

33- Soleimani A., Fathali J., Nezakati A., Nazari M., "Single Facility Goal Location Problems with Symmetric and Asymmetric Penalty Functions", Control and Optimization in Applied Mathematics, 4 (1), 1-14, 2019.

34- Motevalli S., Fathali J., "GENETIC ALGORITHMS FOR FINDING THE SEMI-OBNOXIOUS (k, l) CORE OF A GRAPH", International Journal of Industrial Engineering, 27 (3), 411-428, 2020.

35- Omidi S., Fathali J., Nazari M., "Inverse and reverse balanced facility location problems with variable edge lengths on trees", OPSEARCH, 57 (2), 261-273, 2020, DOI: 10.1007/s12597-019-00428-6.

36- Nazari M., Fathali J., Taghi-Nezhad N., "Fuzzy Single Facility Goal Location Problems with Asymmetric Penalty Function", Modern Researches in Decision Making, 5 (3), 30-58, 2020.

37- Sayar T., Ghiyasi M., Fathali J., "New inverse DEA models for budgeting and planning", RAIRO-Operations Research, 55 (3), 1933-1948, 2021.

38- Poureidi A., Ghaznavi M., Fathali J., "Algorithmic complexity of outer independent Roman domination and outer independent total Roman domination", Journal of Combinatorial Optimization, 41 (2), 304-317, 2021.

39- Gholami M., Fathali J., "The semi-obnoxious minisum circle location problem with Euclidean norm", International Journal of Nonlinear Analysis and Applications, 12 (1), 669-678, 2021.

40- Sayar T., Fathali J., Ghiyasi M., "Efficient Median and Center Problems: a Bi-Objective Mixed Integer Programming Approach", International Journal of Industrial Mathematics, 13 (3), 313-321, 2021.

41- Gholami M., Fathali J., "Mathematical models for the variable weights version of the inverse minimax circle location problem", Journal of Mathematical Modeling, 9 (1), 137-144, 2021.

42- Soleimani A., Fathali J., Taherifard S., "Solving single facility goal Weber location problem using stochastic optimization methods", Iranian Journal of Operations Research, 12 (1), 1-19, 2021.

43- Fathali J., Nazari M., Mahdvar K., "Semi-obnoxious backup 2-median problem on a tree", Journal of Applied Research on Industrial Engineering, 8 (2), 159-168, 2021.

44- Zaferanieh M., Abareshi M., Fathali J. "The minimum information approach to the uncapacitated p-median facility location problem", Transportation Letters, 14 (3), 307-316, 2022.

45- Omidi S., Fathali J., "Inverse single facility location problem on a tree with balancing on the distance of server to clients", Journal of Industrial & Management Optimization, 18 (2), 1247-1259, 2022.

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47- Gholami M., Fathali J., "The inverse minisum circle location problem", Yugoslav Journal of Operations Research, 32 (2), 153-165, 2022.

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51- Poureidi A., Fathali J., Algorithmic results in Roman dominating functions on graphs, Information Processing Letters, 182, 106363, 2023.

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57- Poureidi A., Fathali J., Algorithmic complexity of triple Roman dominating functions on graphs, Communications in Combinatorics and Optimization, 9 (2), 217-232, 2024.

58- Sayar T., Fathali J., Ghiyasi M., The inverse 1-median problem on a tree with transferring the weight of vertices, Transactions on Combinatorics, 13 (4), 335-350, 2024.