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h-index (Scopus):

7

Citations (Scopus):

115

Supervised MSc Theses

#	Thesis title	By	Date
1	Clustering-based optimization approach to track the market index	Zahra Rasouli & Farnaz Hooshmand Khaligh	October 2021
2	Optimum portfolio based on index tracking	Shima Azartoosi & Farnaz Hooshmand Khaligh	October 2021
3	Sensor location problem on transportation network to recognize traffic flow	Fatemeh Vahdat Darband & Farnaz Hooshmand Khaligh	October 2021
4	Clustering problem with modularity density maximization criterion	Fariba Izadi & Farnaz Hooshmand Khaligh	August 2021
5	Emergency evacuation from building : model and algorithm	Zahra Zare & Farnaz Hooshmand Khaligh	January 2021
6	Portfolio optimization problem under uncertainty	Zohreh Anoushirvani & Farnaz Hooshmand Khaligh	October 2020
7	Optimal design and planning in water distribution network: model and algorithm	Mahsa Jamalain & Farnaz Hooshmand Khaligh	October 2020
8	Stochastic programming with probabilistic constraints in relief network design	Fatemeh Garmroudi & Farnaz Hooshmand Khaligh	October 2020
9	model and algorithm for arc routing problem with compactness and overlapping metrics	Elham Asgari & Farnaz Hooshmand Khaligh	October 2019

10	Natural gas network expansion under uncertainty	Aida Farshidvard & Farnaz Hooshmand Khaligh	October 2019
11	Locating contaminant detection sensors in water distribution network : model and algorithm	Fatemeh Amerehi & Farnaz Hooshmand Khaligh	September 2019
12	detection of critical nodes and arcs in graphs: models and algorithm	Fatemeh Mirarab Razi & Farnaz Hooshmand Khaligh	October 2018

Books

#	Title	Author(s)	Publisher country	publication date	version
Portal Records					
1	Methods in Mathematical Modeling	S.Ali Mirhassani, Farnaz Hooshmand Khaligh	Iran (Islamic Republic of)	November 2018	1
2	Introduction to Stochastic Optimization Methods	S.Ali Mirhassani, Farnaz Hooshmand Khaligh	Iran (Islamic Republic of)	June 2021	1
3	Methods and Models in Mathematical Programming	S.Ali Mirhassani, Farnaz Hooshmand Khaligh	Switzerland	December 2019	1

Journal Papers

Portal Records	
1	Farnaz Hooshmand Khaligh, Mahsa Jamalian, S.Ali Mirhassani, "Efficient Two-Phase Algorithm to Solve Nonconvex MINLP Model of Pump Scheduling Problem", JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT-ASCE, May 2021 Vol. 147, Num. 8, Page 1-15, May 2021,
2	S.Ali Mirhassani, Azin Khaleghi, Farnaz Hooshmand Khaligh, "Two-stage stochastic programming model to locate capacitated EV-charging stations in urban areas under demand uncertainty", EURO JOURNAL ON TRANSPORTATION AND LOGISTICS, November 2020 Vol. 0, Num. 0, Page 1-12, November 2020,
3	Farnaz Hooshmand Khaligh, Fatemeh Amerehi, S.Ali Mirhassani, "Risk-Based Models for Optimal Sensor Location Problems in Water Networks", JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT-ASCE, September 2020 Vol. 146, Num. 11, Page 1-12, September 2020,
4	Mercedeh Dodge, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Solving two-dimensional cutting stock problem via a DNA computing algorithm", Natural Computing, March 2020 Vol. 0, Num. 0, Page 1-15, March 2020,
5	Farnaz Hooshmand Khaligh, "A bi-level programming approach for spread of influence in competitive environment", , March 2020 Vol. 0, Num. 0, Page 1-21, March 2020,
6	Javad Zamani Kafshani, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Adopting GRASP to solve a novel model for bus timetabling problem with minimum transfer and fruitless waiting times", AUT Journal of Mathematics and Computing, February 2020 Vol. 1, Num. 1, Page 125-134, February 2020,
7	Farnaz Hooshmand Khaligh, Fatemeh Amerehi, S.Ali Mirhassani, "Logic-based benders decomposition algorithm for contamination detection problem in water networks", COMPUTERS & OPERATIONS RESEARCH, November 2019 Vol. 115, Num. 0, Page 1-17, November 2019,
8	Sadjad Moradi, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Efficient decomposition-ased algorithm to solve long-term peline scheduling problem", PETROLEUM SCIENCE, September 2019 Vol. 0, Num. 0, Page 0-0, September 2019,

- 9 Abdoli, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "On different formulations of green vehicle routing problems", *Journal of Information and Optimization Sciences*, May 2019 Vol. 0, Num. 0, Page 0-0, May 2019,
- 10 Farnaz Hooshmand Khaligh, Fatemeh Mirarab Razi, S.Ali Mirhassani, "Efficient Benders decomposition for distance-based critical node detection problem", *OMEGA-INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE*, February 2019 Vol. 0, Num. 0, Page 0-0, February 2019,
- 11 Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "An Effective Bilevel Programming Approach for the Evasive Flow Capturing Location Problem", *NETWORKS & SPATIAL ECONOMICS*, August 2018 Vol. 0, Num. 0, Page 0-0, August 2018,
- 12 Behrooz Abdoli, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Green Vehicle Routing Problem and Emissions Minimization", , April 2018 Vol. 54, Num. 0, Page 215-239, April 2018,
- 13 Farnaz Hooshmand Khaligh, S.Ali Mirhassani, Alireza Akhavein, "Adapting GA to solve a novel model for operating room scheduling problem with endogenous uncertainty", *Operations Research for Health Care*, March 2018 Vol. 19, Num. 0, Page 26-43, March 2018,
- 14 Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "Time dependent green VRP with alternative fuel powered vehicles", *Energy Systems-Optimization Modeling Simulation and Economic Aspects*, March 2018 Vol. 0, Num. 0, Page 1-36, March 2018,
- 15 Farnaz Hooshmand Khaligh, S.Ali Mirhassani, Alireza Akhavein, "A scenario-based approach for master surgery scheduling under uncertainty", *International Journal of Healthcare Technology and Management*, December 2017 Vol. 16, Num. 0, Page 177-203, December 2017,
- 16 Behrooz Abdoli, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Model and algorithm for bi-fuel vehicle routing problem to reduce GHG emissions", *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH*, July 2017 Vol. 0, Num. 0, Page 0-0, July 2017,
- 17 Meysam Hosseini, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Deviation-flow refueling location problem with capacitated facilities: Model and algorithm", *TRANSPORTATION RESEARCH PART D-TRANSPORT AND ENVIRONMENT*, June 2017 Vol. 54, Num. 0, Page 269-281, June 2017,








Conference Papers




Portal Records

- 1 Maryam Bayat, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "Risk budgeting model for portfolio selection problem with distributionally robust risk measures ", 14th International Conference of Iranian Operations Research Society, October 2021
- 2 Aida Farshidvard, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "Efficient approach based on SVM and risk parity models for portfolio selection ", 14th International Conference of Iranian Operations Research Society, October 2021
- 3 Farnaz Hooshmand Khaligh, "Considering the index tracking models and solving the value-based formulation via the method of difference of convex functions ", 52nd Annual Iranian Mathematics Conference, August 2021
- 4 Fatemeh Vahdat Darband, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "A novel multi-objective model for sensor location problem to recognize traffic flow in transportation networks ", 17th Iranian International Industrial Engineering Conference, February 2021
- 5 Fatemeh Garmroudi, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "Using stochastic programming in relief network design ", 1st National Conference on Optimization of Production and Service Systems, November 2020
- 6 Zahra Zare, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "A network-based model for emergency evacuation of building ", 1st National Conference on Optimization of Production and Service Systems, November 2020
- 7 Zohreh Anoushirvani, Farnaz Hooshmand Khaligh, "Scenario Generation in Portfolio Optimization Problem via Regression and Moment Matching Methods ", 13th International Conference of Iranian Operations Research Society, September 2020

- 8 Mahsa Jamalian, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "MINLP model and McCormick Relaxation based Algorithm for Pump Scheduling Problem ", 13th International Conference of Iranian Operations Research Society, September 2020
- 9 Fatemeh Amerehi, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "Sensor Location Problem on Water Networks under Conditional-Value-at-Risk Measure ", 16th Iranian International Industrial Engineering Conference, January 2020
- 10 Saba Hajibashi, Farnaz Hooshmand Khaligh, "Kernel search method to solve critical node detection problem ", 16th Iranian International Industrial Engineering Conference, January 2020
- 11 Mohammad Nasir Yarahmadi, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "A piecewise linear approximation – based method for portfolio optimization problem with mean, variance and skewness criteria ", 12th International Conference of Iranian Operations Research Society, May 2019
- 12 Fatemeh Amerehi, S.Ali Mirhassani, Farnaz Hooshmand Khaligh, "A Novel Integer Programming Model for Sensor Location Problem in Water Distribution Networks with Budget Constraint ", 12th International Conference of Iranian Operations Research Society, May 2019
- 13 Fatemeh Mirarab Razi, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "Efficient algorithm to solve distance-based critical node detection problem ", 49th Annual Iranian Mathematics Conference, August 2018
- 14 Fatemeh Mirarab Razi, Farnaz Hooshmand Khaligh, S.Ali Mirhassani, "A path based approach for critical node detection problem in graphs ", 14th International Industrial Engineering Conference, February 2018
- 15 Somayeh Sadeghi, Abbas Seifi, Farnaz Hooshmand Khaligh, "Two-person Games for Stochastic Network Interdiction ", Passive Defense and Sustainable Development, October 2016

Taught Courses

#	Course title	Description	Headlines	Date
1	Special topics in financial math	This course addresses the optimization models and methods with the main concentration on their applications in finance.		Fall 2021
2	(COMBINATORIAL OPTIMIZATION & NETWORK ANALYSIS	Modeling techniques of discrete optimization problems and their real world applications are studied. Moreover, well-known optimization problems over networks and their algorithms are discussed		Fall 2021
3	Numerical Analysis	This course addresses basic approximation algorithms to find efficient numerical solutions to different problems in science and technology.		Fall 2021
4	Linear Optimization	This course addresses theoretical and practical aspects of linear optimization problems.		Fall 2021
5	Linear Optimization	This course addresses theoretical and practical aspects of linear optimization problems.		Spring 2021
6	Linear Optimization	This course addresses theoretical and practical aspects of linear optimization problems.		Spring 2021
7	Mathematical Modeling	This course describes the process of constructing and evaluating models. In addition to theoretical concepts, some real-world applications are discussed.		Spring 2021

8	Linear Optimization	Optimization is a scientific approach of decision making which helps us to make the best decision while satisfying some given constraints. This course addresses fundamental concepts in linear optimization problems focusing on both theoretical and pr		Fall 2020
9	(COMBINATORIAL OPTIMIZATION & NETWORK ANALYSIS	In this course, modeling techniques of discrete optimization problems and their real world applications are studied. Moreover, well-known optimization problems over networks and their algorithms are discussed		Fall 2020
10	Special topics in financial math	This course addresses the optimization models and methods with the main concentration on their applications in finance.		Fall 2020