



Curriculum Vitae

Sadegh Niroomand, Ph.D.

Assistant Professor of Industrial Engineering

Affiliation:

Department of Industrial Engineering
Firouzabad Institute of Higher Education (Public University)
Firouzabad, Fars, Iran

Position: Vice Rector for Academic Affairs

Editor-in-Chief:

Annals of Optimization Theory and Practice (<http://aotp.fabad-ihe.ac.ir/>)

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- **Google Scholar:**
http://scholar.google.com/citations?hl=en&user=zSmlrTwAAAAJ&view_op=list_works&sortby=pubdate
- **Research Gate:** https://www.researchgate.net/profile/Sadegh_Niroomandz
- **ORCID:** <http://orcid.org/0000-0001-8196-3906>

Education

- **PhD in Industrial Engineering** (2009 – 2012)
 - Eastern Mediterranean University, Turkey
 - **Thesis title:** Studies on different types of facility layout problems.
- **MSc in Industrial Engineering** (2006 – 2008)
 - Islamic Azad University of Najafabad, Iran
 - **Thesis title:** The study of effective factors on information quality and information sharing in SCM, and estimation of associated function (case study: petroleum and gas industries).
- **BSc in Industrial Engineering** (2000 – 2004)
 - Islamic Azad University of Gachsaran, Iran
 - **Graduation project title:** Applications of queuing theory.

Teaching and Work Experience

- **Full Time Faculty Member**
 - Firouzabad Institute of Higher Education (Assistant Professor) (Aug. 2016 – till date)
 - Istanbul Aydin University (Assistant Professor) (Dec. 2012 – Jun. 2014)
- **Instructor**
 - Shiraz University of Technology (Jan. 2015 – Jan. 2016)
 - Islamic Azad University (Sep. 2014 – Jan. 2015)
 - Eastern Mediterranean University (Spring 2011-12 – Fall 2012-13)
 - Islamic Azad University of Iran (2007 – 2009)
- **Academic Advisor**
 - Eastern Mediterranean University (2009 – 2013)
Academic advisor of more than 40 undergraduate students
- **Teaching Assistant**
 - Eastern Mediterranean University (2009 – 2013)

Research Interests

- Operations Research and its applications in:
 - Facilities Layout and Location, and Assembly Line Balancing
 - Production Planning and Scheduling
 - Flexible Manufacturing Systems
 - Transportation and Supply Chain Networks
 - Network on Chip Architecture

- Meta-heuristic and Decomposition Algorithms in Operations Research
- Fuzzy Theory, Stochastic Programming, Interval Programming, and Uncertainty Theory
- Manufacturing and Service Supply Chain Management
- Engineering Economy and Investment Analysis

Publications

- **Articles**

44. M. Salehi, H.R. Maleki, **S. Niroomand**. "Solving a new cost-oriented assembly line balancing problem by classical and hybrid meta-heuristic algorithms". *Neural Computing and Applications*. (2019)
43. N. Kohansal, F. Daneshdoost, A. Bazayar, **S. Niroomand**, "An integrated MILP-MCDM decision framework for uncertain multi-criteria facilities location problem of glass industries". *International Journal of Management and Decision Making*. (2019)
42. A. Mahmoodirad, A. Heydari, **S. Niroomand**, "An effective hybrid fuzzy programming approach for an entropy-based multi-objective assembly line balancing problem". *Informatica*. (2019)
41. **S. Niroomand**, S. Mosallaeipour, A. Mahmoodirad, "A hybrid simple additive weighting approach for constrained multi-criteria facilities location problem of glass production industries under uncertainty". *IEEE Transactions on Engineering Management*. (2019)
40. A. Mahmoodirad, **S. Niroomand**, F. Hosseinzadeh Lotfi, "An effective solution approach for multi-objective fractional fixed charge problem with fuzzy parameters". *Scientia Iranica*. (2019)
39. **S. Niroomand**. "On the fractional minimal cost flow problem of a belief degree based uncertain network". *International Journal of Industrial Mathematics*. (2018)
38. A. Mahmoodirad, R. Dehghan, **S. Niroomand**. "Modeling linear fractional transportation problem in belief degree based uncertain environment". *Journal of Experimental & Theoretical Artificial Intelligence*. (2018)
37. **S. Niroomand**, N. Mirzaei, A. Hadi-Vencheh, "A simple mathematical programming model for countries credit ranking problem". *International Journal of Finance & Economics*. (2018)
36. H.A. Mardani-Fard, A. Hadi-Vencheh, A. Mahmoodirad, **S. Niroomand**. "An effective hybrid goal programming approach for multi-objective straight assembly line balancing problem with stochastic parameters". *Operational Research: An International Journal*. (2018)
35. **S. Niroomand**, A. Mahmoodirad, S. Mosallaeipour, "A hybrid solution approach for fuzzy multi-objective dual supplier and material selection problem of carton box production systems". *Expert Systems*. (2018)
34. F. Ferdowsi, H.R. Maleki, **S. Niroomand**. "Refueling problem of alternative fuel vehicles under intuitionistic fuzzy refueling waiting times: a fuzzy approach". *Iranian Journal of Fuzzy Systems*. (2018)
33. **S. Niroomand**, "Countries credit ranking: a simple weighted non-linear programming model". *Annals of Optimization Theory and Practice*. (2018)

32. **S. Niroomand**. "A multi-objective based direct solution approach for linear programming with intuitionistic fuzzy parameters". *Journal of Intelligent & Fuzzy Systems*. (2018)
31. **S. Niroomand**, A. Bazyar, M. Alborzi, H. Miami, A. Mahmoodirad. "A hybrid approach for multi-criteria emergency center location problem considering existing emergency centers with interval type data: a case study". *Journal of Ambient Intelligence and Humanized Computing*. (2018)
30. A. Mahmoodirad, T. Allahviranloo, **S. Niroomand**. "A new effective solution method for fully intuitionistic fuzzy transportation problem". *Soft Computing*. (2018)
29. **S. Niroomand**, A. Mahmoodirad, E. Keshavarz. "An effective solution approach based on extension principle for fuzzy minimal cost flow problem". *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*. (2018)
28. F. Ferdowsi, H.R. Maleki, **S. Niroomand**. "A credibility-based hybrid fuzzy programming approach for a bi-objective refueling alternative fuel vehicles problem under uncertainty". *Journal of Intelligent & Fuzzy Systems*. (2018)
27. **S. Niroomand**, A. Mahmoodirad, S. Mosallaeipour, B. Vizvari. "A study of a robust multi-objective supplier-material selection problem". *IMA Journal of Management Mathematics*. (2018)
26. M. Salehi, H.R. Maleki, **S. Niroomand**. "A multi-objective assembly line balancing problem with worker's skill and qualification considerations in fuzzy environment". *Applied Intelligence*. (2017)
25. M. Taassori, **S. Niroomand**, S. Uysal, B. Vizvari, A. Hadi-Vencheh. "Optimization approaches for core mapping on Networks on Chip". *IETE Journal of Research*. (2017)
24. M. Akbari, S. Molla-Alizadeh-Zavardehi, **S. Niroomand**. "Meta-heuristic approaches for fixed-charge solid transportation problem in two-stage supply chain network". *Operational Research: An International Journal*. (2017)
23. M. Tavana, F.J. Santos-Arteaga, A. Mahmoodirad, **S. Niroomand**, M. Sanei. "Multi-stage supply chain network solution methods: hybrid metaheuristics and performance measurement". *International Journal of Systems Science: Operations & Logistics*. (2017)
22. S. Mosallaeipour, A. Mahmoodirad, **S. Niroomand**, B. Vizvari. "Simultaneous selection of material and supplier under uncertainty in carton box industries: a fuzzy possibilistic multi-criteria approach". *Soft Computing*. (2017)
21. A. Mahmoodirad, **S. Niroomand**, N. Mirzaei, A. Shoja. "Fuzzy fractional minimal cost flow problem". *International Journal of Fuzzy Systems*. (2017)
20. **S. Niroomand**, A. Mahmoodirad, A. Heydari, F. Kardani., A. Hadi-Vencheh "An extension principle based solution approach for shortest path problem with fuzzy arc lengths". *Operational Research: An International Journal*. (2017)
19. M. Sanei, A. Mahmoodirad, **S. Niroomand**. "Two-stage supply chain network design problem with interval data". *International Journal of e-Navigation and Maritime Economy*. (2016)
18. A. Heydari, A. Mahmoodirad, **S. Niroomand**. "An entropy-based mathematical formulation for straight assembly line balancing problem". *International Journal of Strategic Decision Sciences*. (2016)

17. M. Taassori, **S. Niroomand**, A. Hadi-Vencheh, S. Uysal, B. Vizvari. "Fuzzy-based meta-heuristic mapping algorithms for networks-on-chip". *Journal of Intelligent & Fuzzy Systems*. (2016)
16. **S. Niroomand**, N. Mirzaei, A. Hadi-Vencheh, S. Molla-Alizadeh-Zavardehi. "Hybrid greedy algorithms for fuzzy tardiness/earliness minimization in a special single machine scheduling problem: case study and generalization". *International Journal of Computer Integrated Manufacturing*. (2016)
15. N. Mirzaei, **S. Niroomand**, R. Zare. "Application of statistical process control in service industry: a case study of restaurant sector". *Journal of Modelling in Management*. (2016)
14. M. Sanei, A. Mahmoodirad, **S. Niroomand**, S. Gelareh, A. Jamalian. "Step fixed-charge solid transportation problem: a Lagrangian relaxation heuristic approach". *Computational and Applied Mathematics*. (2015)
13. P. Boros, O. Fehér, Z. Lakner, **S. Niroomand**, B. Vizvári. "Modeling supermarket re-layout from the owner's perspective". *Annals of Operations Research*. (2015)
12. M. Taassori, M. Taassori, **S. Niroomand**, B. Vizvari, S. Uysal, A. Hadi-Vencheh. "OPAIC: An optimization technique to improve energy consumption and performance in application specific network on chips". *Measurement*. (2015)
11. **S. Niroomand**, A. Hadi-Vencheh, R. Şahin, B. Vizvári. "Modified migrating birds optimization algorithm for closed loop layout with exact distances in flexible manufacturing systems". *Expert Systems with Applications*. (2015)
10. **S. Niroomand**, N. Mirzaei, R. Şahin, B. Vizvári. "A new mathematical formulation and simulated annealing algorithm for one sided closed loop layout". *Journal of Computational and Theoretical Nanoscience*. (2015)
9. **S. Niroomand**, B. Vizvari. "Exact mathematical formulations and metaheuristic algorithms for production cost minimization: a case study of the cable industry". *International Transactions in Operational Research*. (2015)
8. A. Esmaeili, S. Molla-Alizadeh-Zavardehi, A. Mahmoodirad, **S. Niroomand**. "Minimizing makespan in a batch-processing machine flow shop". *Advances in Environmental Biology*. (2015)
7. A. Mahmoodirad, L. Lagzaie, **S. Niroomand**. "Meta-heuristic procedure for a step fixed charge transportation problems". *Advances in Environmental Biology*. (2015)
6. **S. Niroomand**, B. Vizvari, S. Takacs. "A generalization of the MDS method using linear and non-linear mathematical models". *International Journal of Applied Mathematical Research*. (2014)
5. S. Molla-Alizadeh-Zavardehi, A. Mahmoodirad, H. Hassasi, **S. Niroomand**, G. Tohid, M. Sanei. "Fuzzy fixed-charge transportation problem". *Pensee*. (2014)
4. M. Karami, **S. Niroomand**, N. Mirzaei, B. Vizvari. "Analysis and performance measurement of existing solution methods of quadratic assignment problem". *International Journal of Electronics, Mechanical and Mechatronics Engineering*. (2014)
3. A. Mahmoodi-Rad, S. Molla-Alizadeh-Zavardehi, R. Dehghan, M. Sanei, **S. Niroomand**. "Genetic and differential evolution algorithms for the allocation of customers to potential

- distribution centers in a fuzzy environment". *International Journal of Advanced Manufacturing Technology*. (2014)
2. **S. Niroomand**, B. Vizvari. "A mixed integer linear formulation of closed loop layout with exact distances". *Journal of Industrial and Production Engineering*. (2013)
 1. **S. Niroomand**, S. Takacs, B. Vizvari. "To lay out or not to lay out?". *Annals of Operations Research*. (2011)
- **Book Chapters**
 2. **S. Niroomand**, B. Vizvari. Modeling a real cable production system as a single machine scheduling problem: mathematical model and metaheuristic approach. *Modern Optimization Algorithms and Applications in Engineering and Economics*, IGI Global, 327-345. (2016)
 1. **S. Niroomand**, S. Molla-Alizadeh-Zavardehi. Single batch-processing machine scheduling problem with fuzzy due-dates: mathematical modeling and metaheuristic approach. *Modern Optimization Algorithms and Applications in Engineering and Economics*, IGI Global, 751-769. (2016)
 - **Conferences**
 5. **S. Niroomand**, B. Vizvari. "A Modification of Migrating Birds Optimization Algorithm for Closed Loop Layout with Exact Distances". *XXII EURO Working Group on Locational Analysis Meeting*, Budapest, Hungary, May 20-22. (2015)
 4. **S. Niroomand**, B. Vizvari. "Optimal supermarket layout". *EURO 25 Conference*, Vilnius, Lithuania, July 9-11. (2012)
 3. **S. Niroomand**, B. Vizvari. "On the multi-dimensional scaling". *ECCO XXV Conference*, Antalya, Turkey, April 26-28. (2012)
 2. B. Vizvári, R. Şahin and **S. Niroomand**. "A MILP model for closed loop layout and its connection with single row layout". *ICEOS-2012 Conference*, Famagusta, KKTC, Turkey, May 24-26. (2012)
 1. B. Vizvari, **S. Niroomand**. "Optimal supermarket layout". *ECCO XXV Conference*, Antalya, Turkey, April 26-28. (2012)
 - **Other Scientific Reports**
 3. **S. Niroomand**, B. Vizvari. "Closed Loop Layout". *Rutgers Center for Operations Research*. (2012)
 2. **S. Niroomand**, S. Takács, B. Vizvári. "On the Generalization of MDS Method". *Rutgers Center for Operations Research*. (2012)
 1. **S. Niroomand**, S. Takács, B. Vizvári. "To lay out or not to lay out?". *Rutgers Center for Operations Research*. (2011)
 - **PhD Thesis Co-supervised**
 2. **Maryam Salehi** (Supervisor: Prof. Dr. Hamid Reza Maleki), Department of Mathematics, Shiraz University of Technology, (2018)
 1. **Farzaneh Ferdowsi** (Supervisor: Prof. Dr. Hamid Reza Maleki), Department of Mathematics, Shiraz University of Technology, (2018)

Membership of Academic Bodies

- **Official Membership**
 - Institute of Industrial and Systems Engineers (IISE)
 - EU/ME - the metaheuristics community
 - Production and Operation Management Society (POMS)
 - Turk Industrial Engineers Group (TURK-IE)
 - International Association of Engineers - Society of Industrial Engineering (IAENG)
 - International Association of Engineers - Society of Operations Research (IAENG)
 - First EAI International Conference on Computer Science and Engineering (Technical Program Committee Member)
- **Editorial**
 - Annals of Optimization Theory and Practice (Editor-in-Chief)
 - International Journal of Strategic Decision Sciences (Editorial Board Member)
- **Reviewer**
 - Annals of Operations Research
 - Journal of Cleaner Production
 - Transportation Research Part E: Logistics and Transportation Review
 - China Economic Review
 - Neural Computing and Applications
 - Measurement
 - Kybernetes
 - Journal of Modelling in Management
 - Economic Modelling
 - International Journal of Electronics, Mechanical and Mechatronics Engineering

Computer and Software Experience

- Ability to work with
 - MATLAB
 - Optimization Software
 - CPLEX
 - XPRESS
 - GAMS
 - LINGO
 - Microsoft Office Package
 - Visual Basic in Excel and Excel Macro
 - ARENA Simulation Software

Other Personal Information

- **Gender:** Male
- **Date of Birth:** 29th January 1981

CV - Sadegh Niroomand

- **Birth Place:** Fasa, Fars, Iran
- **Nationality:** Iranian
- **Languages:** Persian, Turkish (mother tongue), English (fluent)

