



**Fahimeh Baroughi**

Associate Professor

College: Faculty of Basic Sciences

**Fahimeh Baroughi, Ph.D**

**Associate Professor of Applied Mathematics**

**(Operations Research & Optimization)**

**Personal Information:**

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**Research Interests:**

**Operations Research & Applied Optimization**

- Combinatorial Optimization
- Location Theory
- Network Optimization
- Discrete Optimization
- Inverse/Reverse Optimization
- Design of Algorithms
- Uncertain Optimization
- Fuzzy Mathematical Programming Models
- Engineering Optimization
- Meta-Heuristic and Hyper-Heuristic Algorithms

### Education:

- **Ph.D (Dr. techn.)**, Applied Mathematics ( Operations Research), Institute of Optimization, Graz University of Technology, Graz, Austria, Oct. 2006- Jan. 2010
- **M.Sc**, Mathematics, Urmia University, Urmia, Iran, 2001-2004
- **B.Sc**, Applied Mathematics, University of Tabriz, Tabriz, Iran, 1995-1999

### Membership in Scientific Societies:

- Member of Iranian Operations Research Society
- Member of Iranian Mathematical Society
- Member of Iranian Fuzzy Systems Society

### Referee for Journals / Databases:

Mathematical Reviews, Optimization Method and Software, Mathematical Modeling and Algorithms in Operations Research, Yugoslav Journal of Operations Research, American Journal of Operations Research, Scientia Iranica, Journal of Decisions and Operations Research, Computational and Applied Mathematics, Vietnam Journal of Mathematics, Theoretical Computer Science, Applied Soft Computing, Communications in Combinatorics and Optimization.

### (Co-) Supervised Ph.D Thesis:

1. Akram Soltanpour, *Investigation on some facility location problems in uncertain environments*, Sahand University of Technology, October 2018. (supervised)
2. Esmail Afrashteh, *The solution algorithms for some desirable facility location problems*, Sahand University of Technology, July 2018. (co-supervised).
3. Sepideh Taghikhani, *Facility location problems in fuzzy environments: theory and solution algorithms*, Sahand University of Technology, February 2021. (supervised)
4. Mehran Hassanzadeh, *Investigation on improvement/classical facility location models: concepts, optimal solution algorithms and complexity analysis*, Sahand University of Technology, March 2021. (co-supervised)
5. Soudabeh Seyyedi Gomi Kord Ahmad, *the robust facility location models on trees: theory, optimal solution algorithms and time complexity analysis*, Sahand University of Technology, January 2023. (supervised)
6. Sara Hajjabad, Sahand University of Technology, in progress. (supervision)
7. Shokoufeh Bazdar, Sahand University of Technology, in progress. (supervision)
8. Fatemeh Teymourzadeh, Sahand University of Technology, in progress. (supervision)

### (Co-) Supervised M.Sc Thesis:

1. Seyyedeh Arezoo Mirjavadian, *Optimal algorithms for (budget constrained) reverse multi-facility location problems on networks*, August 2012. (co-supervised)
2. Elham Dadashpour, *Median location problems with positive / negative vertex weights on special graphs*, September 2013. (supervised)

3. Hasan Amirzadeh Fard, *Upgrading and downgrading median and center locations of facilities*, September 2013. (supervised)
4. Roya Nemati, *Investigation on median location problems on special graphs*, Payame Noor University of Tabriz, September 2013. (supervised)
5. Haleh Lakpour, *A study on some fuzzy linear programming models*, September 2013. (supervised)
6. Samaneh Abbasi, *The minimum-cost inverse desirable / undesirable median location models on networks under different distance norms*, September 2013. (co-supervised).
7. Nemat Pileh, *Investigation on connected  $p$ -median and connected  $p$ -center problems on special graphs*, September 2014. (supervised)
8. Mehri Mohaghegh, *Investigation on inverse min-max spanning tree problems under the weighted Hamming distance*, September 2014. (supervised)
9. Homeira Bayzadi Aghdam, *Investigation on fuzzy shortest path problems and optimal solution algorithms*, September 2014. (supervised)
10. Yousef Latifi, *Investigation on facility location models on a  $d$ -dimensional real space under Euclidean norm*, September 2014. (co-supervised)
11. Sakineh Khodmehar, *Investigation on fuzzy transportation problems and optimal solution algorithms*, September 2015. (supervised)
12. Fatemeh Ordikhani, *Investigation on robust shortest path problem with interval data*, September 2015. (supervised)
13. Iden Mirzapolis Adeg, *Investigation on the classical and inverse ordered median location problems on networks*, September 2015. (supervised)
14. Leila Modabber, *The optimal algorithms for backup and undesirable multi-facility location models*, September 2015. (co-supervised)
15. Soheila Abdi, *Investigation on some network flow problems in uncertain environments*, September 2016. (supervised)
16. Khadijeh Ghiyasi, *Multi-Level multi objective optimization models based on fuzzy approaches*, September 2016. (supervised)
17. Daryush Zamai, *Investigation on classical and inverse minimum spanning tree problem on uncertain environments*, September 2016. (supervised)
18. Somayeh Ahmadi, *The optimal algorithms for backup and undesirable multi-facility location models*, September 2017. (co-supervised)
19. Tannaz Haghtaghi, *Investigation on some combinatorial optimization problems in uncertain environments*, September 2018. (supervised)
20. Sepideh Mohammadi, *The optimal algorithms for improvement and inverse models of the network facility location problems*, September 2018. (co-supervised)
21. Mohammad Falahatnejad, *The solution algorithms for intuitionistic fuzzy transportation problems of type-2*, October 2018. (supervised)
22. Shiva Jafarpour, *Investigation on some solid transportation problems with trapezoidal interval type -2 fuzzy parameter*, November 2018. (supervised)

23. Sakineh Sadi, *Investigation on multi-criteria decision-making method based on type 2 fuzzy sets*, January 2019. (supervised)
24. Bahareh Azad Hampa, *Inverse max+sum spanning tree problem under different norms*, January 2019. (supervised)
25. Nazanin Eskandari Arjmand, *Investigation on some minmax regret location problems*, December 2019. (supervised)
26. Roohangiz Moghani, *Efficient solution techniques for some inverse median/maxian location models on graphs*, November 2020. (co-supervised)
27. Mousa Bastari, *Investigation on some minmax regret path location problems on trees*, June 2021. (supervised)
28. Rouhollah Seiranzadeh, *Solution algorithms for the inverse optimal value problem on minimum spanning trees*, February 2023. (supervised)
29. Fariba Fattahi, *Investigation on some fuzzy multi-objective linear fractional optimization problem*, September 2023. (supervised)
30. Neda Afrashteh, *Investigation on some heuristic approaches for the transportation/solid transportation-p-facility location problems*, september 2023. (supervised)

## Publications:

See the complete list of my publications, through the following links:

[Journal Publications](#)

[Conference Publications/ Presentations](#)