Mohammad Afzalinejad

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Education

Ph.D.   **Applied Mathematics – Operations Research**
Kharazmi University, Tehran, Iran (2003 – 2007)
Supervisor: Late Prof. G.R. Jahanshahloo
Subject of research: Performance assessment of firms and organizations using Data Envelopment Analysis (DEA) and Multi-objective Programming techniques
Findings: Efficiency evaluation using inefficient frontier, Quadratic frontier for production possibility set, Multi-objective efficiency assessment in assignment problem

M.Sc.   **Applied Mathematics – Operations Research**
Kharazmi University, Tehran, Iran (2000 – 2003)
Supervisor: Late Prof. G.R. Jahanshahloo
Subject of study: Non-radial efficiency assessment using Data Envelopment Analysis (DEA) models with more focus on slacks-based measures

B.Sc.   **Applied Mathematics – Computer Science**
Amirkabir University, Tehran, Iran (1996-2000)
Main focus: Mathematical and computer sciences as a closely related area with increasing attention

Fields of Interest

Linear and Nonlinear Programming, Data Envelopment Analysis, Multi-objective Programming, Supply Chain Optimization, Combinatorial Optimization

Teaching experience

B.Sc.   Lecturer of the courses on Optimization, Mathematics, Computer Science:
- Calculus
- Computer programming with C/C++
- Linear optimization
- Non-linear optimization
- Data structures and algorithms

M.Sc.   • Lecturer of the courses on *Operations Research* and *Data Envelopment Analysis*

Publications

- G.R. Jahanshahloo, M. Afzalinejad, A Ranking Method Based on a Full-inefficient Frontier, *Applied Mathematical Modelling*, 30 (2006) 248-260.
- G.R. Jahanshahloo, M. Afzalinejad, Quadratic frontier for the production possibility set in data envelopment analysis, *Journal of Applied Sciences*, 7(23) (2007) 3750-3755.
- G.R. Jahanshahloo, M. Afzalinejad, Goal programming in the context of the assignment problem and a computationally effective method, *Applied Mathematics and Computation*, 200 (2008) 34-40.
- G.R. Jahanshahloo, M. Afzalinejad, A comment on "An extended assignment problem considering multiple inputs and outputs", *Applied Mathematical Modelling*, 32 (2008) 2459-2462.
- M. Afzalinejad, D.F. Jones, On finding and detecting efficient assignments in the case of multiple inputs and outputs, *International Journal of Computer Mathematics*, 87 (4) (2010) 715-725.
- M. Afzalinejad, M. Soleimani_damaneh, G.R. Jahanshahloo, Integer Data Envelopment Analysis, Kharazmi University, Working paper, 2003.
- M. Afzalinejad, Rapidly convergent steffensen-based methods for unconstrained optimization, *RAIRO-Operations Research*, 53 (2019) 657-666.
- M. Afzalinejad, Z. Abbasi, A Slacks-based Model for Dynamic Data Envelopment Analysis, *Journal Of Industrial and Management Optimization*, 15 (1) (2019) 275-291.
- M. Afzalinejad, Reverse efficiency measures for environmental assessment in data envelopment analysis, *Socio-Economic Planning Sciences*, 70 (2020) 100731.
- M. Afzalinejad, Evaluating radial efficiency considering environmental factors: A generalization of classical DEA, *Measurement*, (2022) 109497.
- M. Afzalinejad, N. Afzalinejad, Two-level Efficiency Evaluation of Centralized Star Networks, *Journal of Decisions and Operations Research*, 2021 (In Persian).
- M. Afzalinejad, Evaluating the efficiency of two-stage systems under Stackelberg game and imprecise data conditions, *Journal of Advanced Mathematical Modeling*, 11(2) (2021) 339-354 (in Persian).
- M. Afzalinejad, M. Radial eco-efficiency in the presence of weakly disposable undesirable outputs: Evaluating agricultural sectors. *Expert Systems*, e13089.

Conferences and presentations

- M. Afzalinejad, A derivative-approximation method with rapid convergence for unconstrained optimization, International Conference on Operations Research and Optimization, January 26-28, 2011, IPM, Tehran, Iran.
- S. Kaedi, M. Afzalinejad, A complete slacks-based measure of efficiency in network DEA, 6th International Conference of Iranian Operations Research Society, May 8-9, 2013.
- Z. Alavinasab, M. Afzalinejad, Evaluating Super-efficiency in Imprecise Data Envelopment Analysis, 6th International Conference of Iranian Operations Research Society, May 8-9, 2013.
- Z. Keyvan, M. Afzalinejad, Appropriate Efficiency Evaluation by Using Facets of PPS, 6th International Conference of Iranian Operations Research Society, May 8-9, 2013.
- More than 20 conference papers in Persian.

Reviewer for

- Journal of Computational and Applied Mathematics
- International Journal of Information Technology & Decision Making
- Socio-Economic Planning Sciences
- BioResources
- Journal of Control and Optimization in Applied Mathematics
- Journal of Advanced Mathematical Modeling
- Journal of Decisions and Operations Research
- Environmental Modeling & Assessment
- Heliyon
- Annals of Operations Research

Skills

- Computer software: Expert in Mathematica, Microsoft Office, Latex
- English language: Upper intermediate