

In the Name of God

## Curriculum Vita

**Name: Ghasem Tohidi**



**Office Address:** Department of Mathematics, Islamic Azad University, Central Tehran Branch, Tehran, Iran.

**Office Phone:** 66563759

**Home Address:** 2th floor, No 3, Ladan St., Sardar Janghal Shomali St., Niaiesh Blvd., Poonak Sq., Tehran, Iran.

**Home Phone:** (+98)-21-44811232

**Fax:** (+98)-21-44811232

**Mobile:** (+98)-09122951833

**E-mails:** [ghatohidi@yahoo.com](mailto:ghatohidi@yahoo.com)   [gh\\_tohidi@iauctb.ac.ir](mailto:gh_tohidi@iauctb.ac.ir)

Associate Professor at the Islamic Azad University, Central Tehran Branch, Tehran-Iran.

## Employment Experience

- Chief of Science Department of Islamic Azad University, Central Tehran Branch, August 2003 - February 2004.
- Assistance of Islamic Azad University, Central Tehran Branch, February 2003 - January 2005.
- Director General of Graduate office of Islamic Azad University, Central Tehran Branch, February 2013 – Continued.

**Research Interests:** Multi-objective linear programming problems, linear programming, data envelopment analysis, optimization and supervising many MS students in these areas.

## Education

**Ph.D.** 2003, Department of Mathematics, Science and Research Branch, Islamic Azad University, Tehran, Iran.

**Thesis:** Applying of DEA Models and Investigation of Their Difficulties.

**M.A.** 2000, Department of Mathematics, Islamic Azad University, Lahijan-Branch, Lahijan-Iran.

**Thesis:** Determining of any kinds of the efficiency and inefficiency measures in DEA and estimation stochastic efficient frontier by DEA and regression.

**B.A.** 1994, Department of Mathematics, Oroumieh University, Oroumieh -Iran.

## Research Projects

- Islamic Azad University, Tehran-Central Branch (2006), "One-Model Approach to Classification and Sensitivity Analysis in DEA".
- Islamic Azad University, Tehran-Central Branch (2008), Introduce of Decision Making Units with Undesirable Imprecise Inputs and Outputs and Efficiency Measurement of them by Data Envelopment Analysis (UD-DEA).
- Theory generalization of integer multi-objective linear programming problem (IMOLP) and determining its all Pareto-efficient solutions.

پروژه انجام شده در صنعت:

ارزیابی عملکرد و بررسی تغییرات بهره‌وری مناطق و معاونت‌های زیرمجموعه شرکت توزیع برق استان ایلام با استفاده از تحلیل پوششی داده‌ها.

## Conference Papers: (More than 100 papers, some of them are as follows)

1. *33th Iranian International Conference on Mathematics* (2003), "Introducing and Development of Subsystem Models", Iran-Mashad.
2. *34th Iranian International Conference on Mathematics* (2004), "Ranking using 11-norm in data envelopment analysis", Iran-Shahroud.
3. *38th Iranian International Conference on Mathematics* (2007), DMUs with non-discretionary imprecise data in DEA", Iran- Zanzan
4. *38th Iranian International Conference on Mathematics* (2007)," The efficiency evaluation of DMUs with undesirable imprecise data", Iran- Zanzan.
5. *1st National Conference on Mathematics and its Applications* (2008)," Generalization of Ranking in DEA ", Iran- Lahijan.

6. *1st National Conference on Mathematics and its Applications* (2008)," DMUs with Undesirable Imprecise Data in DEA ", Iran- Lahijan.
7. *1st National Conference on Mathematics and its Applications* (2008),"A Method for Determining the Efficiency and Inefficiency Interval in DEA", Iran- Lahijan.
8. *1st National Conference on Mathematics and its Applications* (2008), "A method for Determining the Efficiency and Inefficiency Intervals in Data Envelopment Analysis", Iran- Lahijan.
9. *2<sup>nd</sup> International Conference on Control and Optimization with Industrial Applications, COIA 2008, June 2-4, Baku*, "Ranking in Data Envelopment Analysis with Imprecise Data".
10. *2<sup>nd</sup> International Conference on Control and Optimization with Industrial Applications, COIA 2008, June 2-4, Baku*, "Network Data Envelopment Analysis with Imprecise Data".
11. *39th Iranian International Conference on Mathematics* (2008), "Generalized RTS with Discretionary and Nondiscretionary Inputs and Outputs ", Iran- Kerman.
12. *Conference on Mathematics and Its Applications* (2009), "A non-radial Malmquist productivity index in presence of non-Discretionary variable", Rash-Iran.
13. *2<sup>nd</sup> International Conference of Iranian Operation Research Society* (2009), "A Method for Ranking all Efficient DMUs", Mazandran-Iran.
14. *2<sup>nd</sup> International Conference of Iranian Operation Research Society* (2009), "Interval Inefficiency Measure in DEA with Interval and Ordinal Data", Mazandran-Iran.
15. OR51 Annual Conference, Operational Research Society (2009), A combined orientation data envelopment analysis method for determining maximally productive decision making units, Warwick, U.K.
16. 8th International Conference on Data Envelopment Analysis (DEA2010) Performance Management and Measurement (2010), A method to determine the best game cross efficiency for DMUS with VRS, Olayan School of Business, Lebanon.
17. 8th International Conference on Data Envelopment Analysis (DEA2010) Performance Management and Measurement (2010), Ranking of idea inefficient DMUs in DEA. Olayan School of Business, Lebanon.
18. 3<sup>rd</sup> International Conference of Iranian Operations Research Society, 2010 Amirkabir University of Technology, A new method to obtain the best game cross efficiency.
19. The 4<sup>th</sup> Applied Mathematics conference, Zahedan, Iran (2010), An integrated model to rank extreme and non-extreme DEA efficient DMUs.
20. The 4<sup>th</sup> Applied Mathematics conference, Zahedan, Iran (2010), MOILP with unbounded Feasible region and its efficient solutions.

21. ICMS International Conference on Mathematical Sciences (2010), Tow-stage Data Envelopment Analysis (DEA) Efficiency for Decision Making Units (DMUs) with Bounded Data”, Turkey, Hacer Ozden, Uludag University.
22. The 4<sup>th</sup> International Conference of Iranian Operations Research Society (2011), Generalized Neutral Cross Efficiency in DEA, Department of Mathematics University of Guilan.
23. The 4<sup>th</sup> International Conference of Iranian Operations Research Society (2011), A Hybrid Measure of Efficiency for Decision Making Units with Network Structure, Department of Mathematics University of Guilan.

## **Publications – Research Articles**

1. Sensitivity analysis of the ordered weighted averaging operator via linear models, Computers & Industrial Engineering, 2017 (ISI).
2. The OWA Weights of Improved Minimax Disparity Model, International Journal of Intelligent Systems, 2015 (ISI).
3. An efficient neurodynamic model to solve nonconvex nonlinear optimization problems and its applications, Expert Systems, 2019 (ISI).
4. A New Stochastic Model for Classifying Flexible Measures in Data Envelopment Analysis, Journal of the Operations Research Society of China, 2020 (ISI).
5. A new non-oriented model for classifying flexible measures in DEA, Journal of the Operational Research Society, 2017 (ISI).
6. Measuring productivity change in DEA-R: A ratio-based profit efficiency model, Journal of the Operational Research Society, 2018 (ISI).
7. Data envelopment analysis for decision making unit with nonhomogeneous internal structures: An application to the banking industry, Journal of the Operational Research Society, 2019 (ISI).
8. Applying inverse DEA and cone constraint to sensitivity analysis of DMUs with undesirable inputs and outputs, Journal of the Operational Research Society, 2016 (ISI).
9. Adjacency-based local top-down search method for finding maximal efficient faces in multiple objective linear programming, Naval Research Logistics, 2018 (ISI).

10. Efficiency Evaluation in a Centralized System Based on Data Envelopment Analysis, Iranian Journal of Science and Technology, Transactions A: Science, 2020.
11. DEA for nonhomogeneous mixed networks, Asia Pacific Management Review, 2018 (ISI).
12. A neurodynamic scheme to bi-level revenue-based centralized resource allocation models, Journal of Intelligent & Fuzzy Systems, 2019 (ISI).
13. Solving a tri-criteria best path problem using the fuzzy decision making, Journal of Intelligent & Fuzzy Systems, 2016 (ISI).
14. Inverse DEA in two-stage systems based on allocative efficiency, Journal of Intelligent & Fuzzy Systems, 2021 (ISI).
15. Uncertain RUSSEL data envelopment analysis model: A case study in Iranian Banks, Journal of Intelligent & Fuzzy Systems, 2019 (ISI).
16. Uncertain SBM data envelopment analysis model: A case study in Iranian banks, International Journal Finance Economics, 2020.
17. Negative Data in the Centralized Resource Allocation Model, International Journal of Operations Research, 2015.
18. Cross efficiency Malmquist index to investigate the productivity change in DEA, Journal of Mathematical Extension, 2021.
19. A prospect secondary goal model for ranking DMUs in DEA-R, International Journal of Industrial and Systems Engineering, 2021.
20. Estimating multi-period global cost efficiency and productivity change of systems with network structures, Journal of Industrial Engineering International, 2019.
21. The effect of underlying distribution of asset returns on efficiency in DEA models, Journal of Intelligent & Fuzzy Systems, 2021 (ISI).
22. Estimation the level of outputs in the decision making units in spite of undesirable inputs, Asian-European Journal of Mathematics, 2021 (ISI).
23. Profit Malmquist Index and Its Global Form in the Presence of the Negative Data in DEA, Journal of Applied Mathematics, 2014.
24. Two Methods for Determining Properly Efficient Solutions with a Minimum Upper Bound for Trade-Offs, FiloMath, 2019 (ISI).

25. A Modified Method to Determine a Well-Dispersed Subset of Non-Dominated Vectors of an MOMILP Problem, International Journal of Mathematical Modelling & Computations, 2015.
26. Sensitivity Analysis of Efficient and Inefficient Units in Integer-Valued Data Envelopment Analysis, International Journal of Mathematical Modelling & Computations, 2014.
27. A new method to determine a well-dispersed subsets of non-dominated vectors for MOMILP problem, International Journal Industrial Mathematics, 2015.
28. Cost Efficiency Measures In Data Envelopment Analysis With Nonhomogeneous DMUs, International Journal Industrial Mathematics, 2018.
29. On approximation of the fully fuzzy fixed charge transportation problem, International Journal Industrial Mathematics, 2014.
30. Applying MCDEA Models to Rank Decision Making Units with Stochastic Data, International Journal Industrial Mathematics, 2021.
31. Uncertain BCC Data Envelopment Analysis Model with Belief Degree: A case study in Iranian Banks, International Journal Industrial Mathematics, 2021.
32. Cross-Efficiency Evaluation Based on an Interval Method, International Journal of Data Envelopment Analysis, 2016.
33. Generalization of the RDM model in Data Envelopment Analysis, International Journal of Data Envelopment Analysis, 2020.
34. Influence of undesirable output factor on efficiency determination in DEA: A Case study of hospital emergency Tehran, International Journal of Data Envelopment Analysis, 2020.
35. Efficiency Study with Undesirable Inputs and Outputs in DEA, Journal of Fuzzy extension & Applications, 2020.
36. A generalized cost Malmquist index to compare the productivities of units with negative data in DEA, Journal of Linear and Topological Algebra, 2014.
37. Productivity changes of units: A directional measure of cost Malmquist index, Journal of New Researches in Mathematics, 2015.
38. An Efficient Neurodynamic Scheme for Solving a Class of Nonconvex Nonlinear Optimization Problems, International Journal of Mathematical Modelling & Computations, 2018.

39. A Bi-level Formulation for Centralized Resource Allocation DEA Models, International Journal of Mathematical Modelling & Computations, 2019.
40. Measuring the Interval industry cost efficiency score in DEA, Advances in Mathematical Finance and Applications, 2020.
41. Improved NARX-ANFIS Network structure with Genetic Algorithm to optimizing Cash Flow of ATM Model, Advances in Mathematical Finance and Applications, 2020.
42. A circular global profit Malmquist productivity index in data, Applied Mathematical Modelling, 2013 (ISI).
43. An L1-norm method for generating all of efficient solutions of multi-objective integer linear programming problem, in Journal of Industrial Engineering International, 2012.
44. Productivity Index for Decision Making Units with Two-Stage Structure, World Academy of Science, Engineering and Technology, 2011 (ISI).
45. A global cost Malmquist productivity index using data envelopment analysis, Journal of the Operational Research Society, 2012 (ISI).
46. A full ranking method using integrated DEA models and its application to modify GA for finding Pareto optimal solution of MOP problem, Journal of Industrial Engineering International, 2011.
47. A profit Malmquist productivity index, Journal of Industrial Engineering International, 2010.
48. Non-discretionary Imprecise Data in Efficiency Measurement, Journal of Industrial Engineering International, 2010.
49. DMUs with Network Structure and Imprecise Data, Journal of science, 2010.
50. A non-radial rough DEA mode, Mathematical modelling & computations, 2011.
51. Unboundedness in MOILP and its efficient solutions, Mathematical modelling & Computations, 2011.

52. DMUs with Undesirable Imprecise Data in DEA, Journal of Applied Mathematics, 2008.
53. Determining and Efficiency Analysis of DMUs with Non-Discretionary Imprecise Data by DEA Models, International Mathematical Forum, 2008.
54. Generalized RTS with Discretionary and Nondiscretionary Inputs and Outputs, Applied Mathematical Sciences, 2008.
55. Ranking of Extreme and Non-Extreme Efficient DMUs, International Mathematical Forum, 2007.
56. Raking of Interval Efficient DMUs with Interval and Ordinal Data, International Mathematical Forum, 2007.
57. Modifying of Optimal Paths and Costs of Adjustment in Dynamic DEA, International Mathematical Forum, 2007.
58. IDEA-Based Malmquist Productivity Index, International Mathematical Forum, 2007.
59. Ranking of efficient DMUs with stochastic data, International Mathematical Forum, 2007.
60. Relationship between Pareto Optimality in MOILP and DEA, Applied Mathematical Sciences, 2008.
61. Determining a well-dispersed subset of non-dominated vectors of multi-objective integer linear programming problem, Journal of American Science, 2013 (ISI).
62. Undesirable Inputs and Outputs in DEA Models, Applied Mathematics and Computation, 2005 (ISI).
63. A Method for Finding Efficient DMUs in DEA by Using 0-1 Linear Programming, Applied Mathematics and Computation, 2004 (ISI).



64. Sensitivity of Efficiency Classifications in the Inverse DEA Models, Applied Mathematics and Computation, 2005 (ISI).
65. The Identification of Nondominated and Efficient Paths on a Network, Applied Mathematics and Computation, 2005 (ISI).
66. Using Inverse DEA Models for Improvement Efficiency and Estimating Output/Input and Extra Inputs of DMUs, International Mathematical Journal, 2005.
67. Sensitivity and Stability Analysis in DEA, Journal of the Operational Research Society, 2005 (ISI).
68. A Method for Determining of Influence in Radial DEA Models, Applied Mathematics and Computation, 2004 (ISI).
69. A Method for Solving 0-1 Multiple Objective Linear Programming Problem Using Data Envelopment Analysis, Journal of the Operations Research Society of Japan, 2003 (ISI).
70. Input Estimation and Identification of Extra Inputs in Inverse DEA Models, Applied Mathematics and Computation, 2004 (ISI).
71. A Modified DEA Model for Classification and Sensitivity Analysis of DMUs, International Mathematical Journal, 2005.
72. A one model approach to classification and sensitivity analysis in DEA, Applied Mathematics and Computation, 2005 (ISI).
73. Interval network DEA, Applied Mathematical Sciences, 2008.
74. Comparing the productivities of two units at two different points in time, International Journal of Industrial Mathematics, 2012.
75. ارائه روشی خطی برای رتبه‌بندی واحدهای کارای رأسی و غیر رأسی در DEA و اصلاح الگوریتم ژنتیک توسط آن برای حل مسائل بهینه‌سازی چند هدفی، مجله علمی پژوهشی علوم پایه، 2011.

76. روشی برای بررسی و تعیین عدم وجود بازده به مقیاس و بازده به مقیاس منفی در حضور تراکم، مجله علمی پژوهشی علوم پایه، 2012.

77. روش OWA و کارایی متقاطع برای تحلیل مسئله تصمیم گیری چندمعیاره با داده‌های کیفی و کمی، نشریه تصمیم‌گیری و تحقیق در عملیات، 1398.

78. ارائه مدل بودجه ریزی در تحلیل پوششی داده‌ها بر اساس ارزیابی عملکرد واحدهای تصمیم‌گیری، فصلنامه علمی پژوهشی دانش حسابداری و حسابرسی مدیریت، 1398.

79. ارائه مدل‌های هزینه و سود در حضور متغیرهای انعطاف‌پذیر، مجله پژوهش‌های نوین در ریاضی، 1395.

80. مدل جدید غیر ماهیتی جهت محاسبه کارایی واحدهای تصمیم‌گیری در حضور متغیرهای انعطاف‌پذیر، مجله پژوهش‌های نوین در ریاضی، 1397.

81. پیش‌بینی هوشمند نقدینگی دستگاههای خودپرداز بر مبنای تقاضای مشتریان، مجله پژوهش‌های نوین در ریاضی، 1399.

82. رویکردی برای به‌دست آوردن جواب‌های کارای سره نزدیک به نقطه ایدآل در بهینه‌سازی چندهدفه، مجله پژوهش‌های نوین در ریاضی، 1399.

برگزاری کارگاه آموزشی

برگزاری کارگاه آموزشی نرم‌افزار بهینه‌سازی GAMS در هشتمین کنفرانس تحلیل پوششی داده‌ها در مرداد ماه 1395

کتاب‌های تالیفی

i. ریاضی عمومی و کاربرد آن در مدیریت، انتشارات مبتکران.

ii. تحقیق در عملیات 1 و 2، انتشارات مبتکران.

iii. کارایی و تغییرات بهره‌وری سازمان‌ها در تحلیل پوششی داده‌ها، انتشارات دانشگاه.

راهنمایی پایان‌نامه کارشناسی ارشد: 60 مورد

راهنمایی رساله دکتری: 10 مورد

مشاوره پایان‌نامه کارشناسی ارشد: 70 مورد

مشاوره رساله دکتری: 14 مورد