

Curriculum Vitae

Personal Data



First name: Bahram

Last name: Farhadinia

Current Academic Position: Associate Professor (23-May-2015), Department of Mathematics, Quchan University of Advanced Technology, Quchan, IRAN.

Date of Birth: 23-Sep-1978

Citizen ship: Iranian

Place of Birth: Torbat-Jam

Marital Status: Married (and has a son)

Language: Farsi, English (acceptable level of understanding, speaking and writing in English)

Website: www.b-farhadinia.ir E-mails: bahramfarhadinia@yahoo.com, bfarhadinia@qiet.ac.ir

Qualifications

B. Sc.

In Applied Mathematics, February 2001, Sistan and Baluchestan University, Iran.

Graduated with Honors (Ranked Number One).

M. Sc.

In Applied Mathematics, (Control Optimization), September 2003, Ferdowsi University of Mashhad, Iran.

Dissertation

Optimal control theory applied to immunotherapy of tumor.

Supervisor

Professor A. Vahidian Kamyad

Graduated with Honors (Ranked Number One).

Ph. D.

In Applied Mathematics, (Optimal Control and Shape Optimization), January 2007, Ferdowsi University of Mashhad, Iran.

Major Field

Optimal Control Theory and Measure Theory Applied to Nonlinear Optimal Control Problems.

Second Field

Optimal shape design Problems.

Thesis

Optimal shape design of viscous and compressible flow in view of measure theory.

Supervisor

Professor M. H. Farahi

Advisor

Professor A. Vahidian Kamyad

External Examiners

Professor F. Tutunian, Dr. J. A. Esfehiani and Associate Professor A. Fakharzadeh

Sabbatical Time (Australia)

In Applied Mathematics, (Optimal Control Theory), Jun-December 2007, Curtin University, Perth.

Major Field

Solving Optimal Control Problems Using CEPT Method.

Supervisor

Professor K. L. Teo (Head of Department)

Advisor

Dr. R. Loxton

Honors and Executive Profile

Honors

Distinguished Researcher Award (QUAT 2011).

Distinguished Researcher Award (QUAT 2013).

Distinguished Researcher Award (QUAT 2014).

Distinguished Researcher Award (QUAT 2015).

B. Sc. Graduated with Honors(Ranked Number One).

M. Sc. Graduated with Honors(Ranked Number One).

Editor-in-Chief

International Journal of Fuzzy Mathematics with Applications

Editorial Board Member

Recent Research in Science and Technology

Mathematical Modelling in Engineering Applications (Science Publishing Group)

Radical Research and Development Foundation

Invited Reviewer for the International Journals

Soft Computing

Applied Mathematical Modelling

International Journal of Computer Mathematics

Knowledge Based Systems

Optimal Control, Applications and Methods

Information Sciences

Journal of Intelligent and Fuzzy Systems

Iranian Journal of Fuzzy Systems

Transactions on Fuzzy Systems

Pattern Recognition Letters

Executive Profile

Vice President for Administrative and Finance Affairs, QUAT.

Member of Educational Council, QUAT.

Member of Research Council, QUAT.

Member of Cultural and Extracurricular Activities Council, QUAT.

Memberships

Iranian Fuzzy Systems Society (From 2010 till now).

Deputy of Iranian Fuzzy Systems Society in QUAT

Journal Papers

Refereed Articles Published Journals, Total: 28, (ISI: 23)

□ Optimal control theory: 2

- B. Farhadinia, K. L. Teo, R. Loxton, "A Computational Method for a Class of Nonstandard Time Optimal Control Problems Involving Multiple Time Horizons", in *Mathematical Computer and Modeling*, Vol.49, 2009, pp. 1682-1691. (ISI)
- B. Farhadinia, "Structural Optimization of an Acoustic Horn", *Applied Mathematical Modelling*, Vol. 36, 2012, pp. 2017-2030. (ISI)

□ Optimal Shape Design: 8

- B. Farhadinia, "Shape Optimization of an Airfoil in the Presence of Compressible and Viscous Flows", in *Journal of Computational Optimization and Mathematics*, DOI 10.1007/s10589-009-9313-y, 2009. (ISI)
- B. Farhadinia, M. H. Farahi, J. A. Esfahani, "Shape Optimization of a Nozzle with Specified Flow Filed Including Viscosity Effect", in *Journal of Acta Appl. Math.*, Vol. 104, 2008, pp. 243-256. (ISI)
- B. Farhadinia, "An Optimal Shape Design Problem for Fan Noise Reduction", in *Journal of J. Software Eng. Appl.*, Vol. 3, 2010, pp. 610-613.
- B. Farhadinia, M. H. Farahi, "On the Existence of the Solution of an Optimal Shape Design Problem Governed by Full Navier-Stokes Equations", in *Journal of Int. J. Contemp. Math. Sci.*, Vol. 2, 2007, pp. 701-711.
- B. Farhadinia, M. H. Farahi, "Optimal Shape Design of an Almost Straight Nozzle", in *Journal of Int. J. Appl. Math.*, Vol. 17, 2005, pp. 319-333.
- B. Farhadinia, "An Efficient Algorithm for Finding Optimal Car-driving Strategy", in *Journal of J. Appl. Math. Information*, Vol. 30, 2012, pp. 1-14.
- B. Farhadinia, "Planar Contraction Design with Specified Fiber Orientation Distribution at the Outlet", in *Structural and Multidisciplinary Optimization*, Vol. 46, 2012, pp. 503-511.(ISI)
- B. Farhadinia, "A New Approach to Optimal Control Problem Constrained by Canonical Form", in *Journal of World Academy of Science, Engineering and Technology*, Vol. 4, 2010, pp. 03-22.

□ Fuzzy Set Theory: 22

- B. Farhadinia, "Ranking Fuzzy Numbers Based on Lexicographical Ordering ", in *Journal of Int. J. Appl. Math. Computer Sciences*, Vol. 5, 2009, pp. 248-251.
- B. Farhadinia, "Necessary and Sufficient Optimality Conditions for Fuzzy Linear Programming ", in *Journal of J. Appl. Math. Information*, Vol. 29, 2011, pp. 337-349.
- B. Farhadinia, "Necessary Optimality Conditions for Fuzzy variational Problems ", in *Journal of Information Sciences*, Vol. 181, 2011, pp. 1348-1357.(ISI)
- B. Farhadinia, A. V. Kamyad, "Weak and Strong Duality Theorems for Fuzzy Conic Optimization Problems ", in *Journal of Iranian Journal of Fuzzy Systems*, Vol. 10, 2013, pp. 143-152.(ISI)

- **B. Farhadinia**, Adrian I. Ban, " *Developing New Similarity Measures of Generalized Intuitionistic Fuzzy Numbers and Generalized Interval-Valued Fuzzy Numbers from Similarity Measures of Generalized Fuzzy Numbers* ", in *Journal of Mathematical and Computer Modelling*, Vol. 57, 2013, pp. 812-825. *(ISI)*
- **B. Farhadinia**, " *A theoretical development on the entropy of interval-valued fuzzy sets based on the intuitionistic distance and its relationship with similarity measure*", in *Journal of Knowledge-Based Systems*, Vol. 39, 2013, pp. 79-84. *(ISI)*
- **B. Farhadinia**, " *Information measures for hesitant fuzzy sets and interval-valued hesitant fuzzy sets* ", in *Journal of Information Sciences*, <http://dx.doi.org/10.1016/j.ins.2013.03.034>, 2013. *(ISI)*
- **B. Farhadinia**, " *Solving fuzzy linear programming problems with linear membership functions-Revisited* ", in *Journal of Caspian Journal of Mathematical Sciences*, Vol. 3, 2014, pp. 261-272.
- **B. Farhadinia**, " *An efficient similarity measure for intuitionistic fuzzy sets*", in *Journal of Soft Computing*, Vol. 18, 2014, pp. 85-94. *(ISI)*
- **B. Farhadinia**, " *A novel method of ranking hesitant fuzzy values for multiple attribute decision making problems*", in *Journal of Int. J. Intelligence Systems*, Vol. 28, 2013, pp. 752-767. *(ISI)*
- **B. Farhadinia**, " *An Approach to Multi-Attribute Interval-Valued Intuitionistic Fuzzy Decision Making Based on a Family of New Ranking Functions*", in *Journal of Journal of Multiple-Valued Logic and Soft Computing*, Vol. 23, 2014, pp. 97-111. *(ISI)*
- **B. Farhadinia**, " *Sensitivity Analysis in Interval-Valued Trapezoidal Fuzzy Number Linear Programming Problems* ", in *Journal of Applied Mathematical Modelling*, Vol. 38, 2014, pp. 50-62. *(ISI)*
- **B. Farhadinia**, " *Pontryagin's Minimum Principle for Fuzzy Optimal Control Problems*", in *Journal of Iranian Journal of Fuzzy Systems*, Vol. 11, 2014, pp. 27-43. *(ISI)*
- **B. Farhadinia**, " *Distance and Similarity Measures for Higher Order Hesitant Fuzzy Sets* ", in *Journal of Knowledge-Based Systems*, Vol. 55, 2014, pp. 43-48. *(ISI)*
- **B. Farhadinia**, " *Correlation for dual hesitant fuzzy sets and dual interval-valued hesitant fuzzy sets*", in *Journal of Int. J. Intelligence Systems*, Vol. 29, 2014, pp. 184-205. *(ISI)*
- **B. Farhadinia**, " *A series of score functions for hesitant fuzzy sets* ", in *Journal of Information Sciences*, Vol. 277, 2014, pp. 102-110. *(ISI)*
- **B. Farhadinia**, " *Fuzzy multicriteria decision-making method based on a family of novel measured functions under vague environment* ", in *Journal of Journal of Intelligent and Fuzzy Systems*, Vol. 27, 2014, pp. 2797-2808. *(ISI)*
- **B. Farhadinia**, " *Multi criteria decision making method based on the higher order hesitant fuzzy soft set* ", in *Journal of International Scholarly Research Notices*, Hindawi 2014.
- **B. Farhadinia**, " *Study on division and subtraction operations for hesitant fuzzy sets, interval-valued hesitant fuzzy sets and dual hesitant fuzzy sets* ", in *Journal of Journal of Intelligent and Fuzzy Systems*, Vol. 28, 2015, pp. 1393-1402. *(ISI)*
- **B. Farhadinia**, " *Hesitant fuzzy set lexicographical ordering and its application to multi-attribute decision making*", in *Journal of Information Sciences*, Vol. 327, 2016, pp. 233-245. *(ISI)*
- **B. Farhadinia**, " *Multiple criteria decision making methods with completely unknown weights in hesitant fuzzy linguistic term setting*", in *Journal of Knowledge-Based Systems*, DOI:10.1016/j.knosys.2015.11.008. 2016 *(ISI)*
- R.M. Rodríguez, B. Bedregal, H. Bustince, Y.C. Dong, **B. Farhadinia**, C. Kahraman, L.Martínez, V. Torra, Y.J. Xu, Z.S. Xu, F. Herrera, " *A position and perspective analysis of hesitant fuzzy sets on information fusion in decision making. Towards high quality progress*", in *Journal of Information Fusion*, DOI:10.1016/j.inffus.2015.11.004. 2016 *(ISI)*

Lecturer

M. SC. Course (since 2008)

- Optimal Control
- Fuzzy Set Theory
- Advanced Operation Researches
- Optimization

B. SC. Course (since 2008)

- Operations Research I
- Operations Research II
- Ordinary Differential Equations
- Engineering Mathematics
- Numerical Analysis
- Calculus 1
- Calculus 2
- Technical Language (This course is taught in English)

Conferences

Iranian Conferences, Congresses and Seminars

1. **"Numerical Shape Optimization of an Airfoil in the Presence of Compressible and Viscous Flows"**, (B. Farhadinia), Presented in The 2'nd Int. Conference on Nonlinear Analysis and Optimization, University of Isfahan, 2009.
2. **"A New Linear Approximation of Fuzzy Numbers"**, (B. Farhadinia), Presented in The 11'nd Conference on Fuzzy Systems, University of Sistan and Baluchestan, 2011.
3. **On "the similarity measure of generalized fuzzy numbers based on the geometric distance and the perimeter concepts"**, (B. Farhadinia), Presented in IMC44, Ferdowsi University of Mashhad, 2013.

Research Projects

1. **"A Computational Method for a Class of Nonstandard Time Optimal Control Problems Involving Multiple Time Horizons"**, in University of Mohaghegh Ardabili, 2008.
2. **"Shape Optimization of an Airfoil in the Presence of Compressible and Viscous Flows"**, in University of Mohaghegh Ardabili, 2009.
3. **"An Optimal Shape Design Problem for Fan Noise Reduction"**, in University of Mohaghegh Ardabili, 2010.
4. **"A New Approach for Solving Optimal Control Problems with Canonical Formulation"**, in University of Mohaghegh Ardabili, 2010.
5. **"The Hesitant Fuzzy Soft Set and its Application in Decision Making"**, in Quchan University of Advanced Technology, 2014.

Research Students

M. Sc.: Supervisor

1. L. Asgharpur Klorazi, **"Solving a Class of Fuzzy Linear Programming Problems by Algebraic and Geometric Approach"**, University of Mohaghegh Ardabili, Iran, 2009.
2. S. H. Azizi Chapardi, **"Accelerated Overrelaxation Iterative Method for Rank Deficient Least Squares Problems"**, University of Mohaghegh Ardabili, Iran, 2010.
3. Y. Abdolizadeh, **"Preconditioned Accelerated Overrelaxation Iterative Methods for M-matrices"**, University of Mohaghegh Ardabili, Iran, 2010.
4. N. Kiyanpour, **"Minimization Theorems and Fixed Point Theorems in Generating Spaces of Quasi-metric Family"**, University of Mohaghegh Ardabili, Iran, 2011.
5. N. Hemati **"A study on similarity measures for HFSs and DHFSs"**, Quchan University of Advanced Technology, Iran, 2014.
6. N. Hekmat **"A study on similarity and distance measures for T2FSs"**, Quchan University of Advanced Technology, Iran, 2014.
7. Sh. Baratzadeh **"A study on similarity measures for FNs, IVFNs and IFNs"**, Quchan University of Advanced Technology, Iran, 2014.
8. A. Kelidari **"A study on distance measures for HFSs and DHFSs"**, Quchan University of Advanced Technology, Iran, 2014.
9. T. Jamali **"A study on distance measures for FSs and IVIFSs"**, Quchan University of Advanced Technology, Iran, 2014.
10. R. Laledashti **"On the entropy measures for HFSs, IVHFSs and DHFSs"**, Quchan University of Advanced Technology, Iran, 2015.

11. M. JanatiMohebe seraj "**MCDM methods on FSS, IFSs and IVIFSs**", Quchan University of Advanced Technology, Iran, 2015.
12. M. Malkeshi "**On the entropy measures on FSS, IFSs and IVIFSs**", Quchan University of Advanced Technology, Iran, 2015.
13. S. Nikandish "**MCDM methods on HFSS, IVHFSS and DHFSS**", Quchan University of Advanced Technology, Iran, 2015.
14. S. Esmaili "**MCDM methods on T2FSS**", Quchan University of Advanced Technology, Iran, 2015.