In the Name of God, the All-Merciful, Mercy-Giving

ASIEH   KHOSRAVANIAN

Assistant Professor, Artificial intelligence in medical sciences Dept., School of Medicine, Shiraz University of Medical Sciences, Zand Blvd., Shiraz, Fars, IRAN.

Academic Background

Ph.D., Computer Engineering (Artificial intelligence)
University of Semnan, Semnan, Iran.

First Rank in Ph.D. Graduates for the Year
GPA=19.73 of 20
Thesis Quality: Excellent

Thesis title: "Automatic Brain Lesion Segmentation in Magnetic Resonance Images Using Deformable models."

Master of Science, Computer Engineering

First Rank in M.Sc. Graduates for the Year
GPA=17.16 of 20
Thesis Quality: Excellent

Thesis title: "Presenting an intelligent system for diagnosis of coronary heart disease By using Probabilistic Neural Network."

Bachelor of Science, Computer Engineering,

Professional Experience

Director of Artificial Intelligence unit, Shiraz University of Medical Sciences.

Head of Computer Science Group, University of Applied Science and Technology (UAST)

Post doc researcher, Shiraz University of Medical Sciences

Post doc researcher, Shiraz University of Technology

Sabbatical Leave, Shiraz University of Technology, Computational Neuroscience Laboratory

Research Assistant, Shiraz University of Technology

Research Assistant, Payame Noor University

Secretary of the Scientific Committee, 4th Applied Science Conference on Telecommunication and Communication Technologies, Shiraz, Iran

Scientific Committee, First National Conference on Computer Engineering and Information Technology of Payame Noor University, Tiran, Iran, 20 Nov. 2014.
Session chair, First National Conference on Computer Engineering and Information Technology of Payame Noor University, Tiran, Iran, 20 Nov. 2014.

Areas of Expertise

Artificial intelligence (AI), Medical Image Processing, Machine Learning, Deep Learning.

Strength

- Excellent administrative capabilities and experience in leadership and supervision.
- Experience in enhancing graduate and undergraduate programs.
- Experience in undertaking multidisciplinary research projects and providing guidance.
- Ability to teach courses (graduate and undergraduate level) in several areas such as machine learning, neural networks, bioinstrumentation, medical image processing.
- Programming: C#, MATALB, QT, php, Unix

Awards

First rank in Annual Award for Best Ph.D. thesis, Sharif University, Computer Society of Iran.

First Rank in Semnan university "RAD" award for excellent students.

Award for excellent teaching at the University of Applied Science and Technology (UAST)

Supervision/Co-supervision Activity

- Graduate:

   Completed: 14 B.Sc., 3 M.Sc. Students.

   Currently: 1 Ph.D. and 1M.Sc. Students.

Teaching Activity

Taught and introduced graduate and undergrad level courses on the following subjects:

- Machine Learning/Pattern Recognition
- Artificial Intelligence
- Image Processing
- Medical Image Processing
- Data mining
- Algorithm Design/ Advanced Algorithm Design
- Data structure
- Operating System
- Computer Simulation
- Expert System

- Data base
- Computer Engineering 1,2
- Programming
- Multimedia system
- Information technology management
- Seminar

Professional Activities

▪ **Society Membership:**

- Editorial board of Signal processing Journal

▪ **Reviewer:**

Conferences
- CSC2019: 3th International conference on sift computing, November 20 & 21, 2019.
- CHEST 2019: 1st conference on healthcare computing system and technologies, April 17& 18, 2019.
- First National Conference of Computer Science and Engineering, Isfahan, November 20, 2014.
- 4st Applied Science Conference on Telecommunication and Communication Technologies, February 22, 2015.
- 2th National Conference of Computer Science and Engineering, Isfahan, March 4, 2016.

Publications

a) Journal Papers

1. Khosravanian, A., Rahmanimanesh, M., Keshavarzi, P., Mozaffari S., Kazemi, K., "Level Set Method for Automated 3D Brain Tumor Segmentation Using Symmetry Analysis and Kernel Induced Fuzzy Clustering". Multimedia tools and applications, Accepted, Q1 journal.

2. Khosravanian, A., Rahmanimanesh, M., Keshavarzi, P., Mozaffari S., "Enhancing Level-set Brain Tumor Segmentation using Fuzzy shape prior information and Deep Learning." Journal of Digital Imaging, Revised version is Under Review, Q1 journal.

3. Khosravanian, Asieh, et al. "Fast level set method for glioma brain tumor segmentation based on Superpixel fuzzy clustering and lattice Boltzmann method." Computer Methods and Programs in Biomedicine 198 (2021): 105809. Q1 Journal.

4. Khosravanian, Asieh, et al. "A level set method based on domain transformation and bias correction for MRI brain tumor segmentation." Journal of Neuroscience Methods 352 (2021): 109091. Q2 Journal.

5. Khosravanian, Asieh, et al. "Fuzzy local intensity clustering (FLIC) model for automatic medical image segmentation." The Visual Computer (2020): 1-22. Q2 journal.

6. Khosravanian, Asieh, and Saeed Ayat. "Diagnosing breast cancer type by using probabilistic neural network in decision support system." International Journal of Knowledge Engineering 2.1 (2016): 73-76.

7. Khosravanian, Asieh, et al."Identification and Classification of Coronary Artery Disease Patients using Neuro-Fuzzy Inference Systems." Journal of mathematics and computer Science 13 (2014): 136-141.

8. Khosravanian, Asieh, et al. " Discrete Social Spider Algorithm for Solving Traveling Salesman Problem." International Journal of Computational Intelligence and Applications (2021): 2021 Aug 13:2150020.

9. A.Khosravanian, M.Rahmanimanesh, P.Keshavarzi. "Designing a group decision-making system using a fuzzy combination of regression methods for prediction of benign or malignant breast tumors", Iranian Journal of Breast Diseases, Vol. 10, No. 3, pp. 55-66 Autumn 2017 (ISC Journal).

10. A. Khosravanian, S. Ayat, "Diagnosing Breast Cancer Type by Using Probabilistic Neural Network in Decision Suport System," International Journal of Knowledge Engineering,Vol. 2(1), pp. 73-76, 2016.

11. A. Khosravanian, S. Ayat, "Designing and evaluation of a decision support system for prediction of coronary artery disease", Hormozgan Medical Journal, Vol.19, No.6, pp. 401-408, 2016. (ISC Journal)

12. A. Khosravanian, S. Ayat, "Designing and evaluation a decision support system for prediction of Coronary Artery Disease", Iranian Journal of Breast Diseases, Vol. 8, No. 3, pp. 34-41, Autumn 2015. (ISC Journal).

13. A. Khosravanian, S. Ayat, "Presenting an intelligent system for diagnosis of coronary heart disease by using Probabilistic Neural Network", Journal of Health Information Management, Vol. 12, No.1, pp. 3-13, 2015. (ISC Journal).

14. A. Khosravanian, S. Ayat, "Designing and evaluation a decision support system for prediction of Coronary Artery Disease", Journal of zabol university of medical sciences and health services, Vol. 6, No.4, pp.90-101, 2015. (ISC Journal).

15. S. Ayat, A. Khosravanian, "Identification and Classification of Coronary Artery Disease Patients using Neuro-Fuzzy Inference Systems", Journal of mathematics and computer science, Vol.13, No.2, pp. 136-141, Sept. 2014.

b) Papers in Refereed Conferences

1. Khosravanian, Asieh, et al. "Fuzzy Region-Scalable Fitting Model for Glioma Brain Tumor Segmentation." 3rd International Conference on Soft Computing (CSC2019), Guilan, Iran, November 20th & 21th, 2019.

2. Khosravanian, Asieh, et al. "Diagnosing Breast Cancer Type by using Probabilistic Neural Network in Decision Support System." International Conference on communication and Information systems, Roma, Italy, July 16-17,2015.

3. A. Khosravanian, Mohammad Rahmanimanesh, "Designing an Adaptive Neuro-Fuzzy Inference System by using Genetic Algorithm and Particle Swarm Optimization algorithm for diagnosis of diabetes", 4th International Conference on Applied Research in Computer Engineering and Signal Processing,Tehran, Iran, 8 December 2016.

4. A. Khosravanian, S. Ayat, "Application of probabilistic neural network to predict coronary heart disease", International Conference on Computer, Information Technology and Digital Media (CITaDiM), Tehran, Iran, 27 Feb-2 March 2014.

5. A. Khosravanian, "Security and privacy in cloud computing", International Conference on Computer, Information Technology and Digital Media (CITaDiM), Tehran, Iran, 27 Feb-2 March 2014.

6. Khosravanian, Asieh, et al. "Designing an intelligent system based on ensemble learning in predicting diabetic nephropathy" 4th International Conference on Soft Computing , Guilan, Iran, December 29 & 30, 2021.

7. Khosravanian, Asieh, et al. "Provide a fuzzy level set method for automatic medical image segmentation", 1st conference on healthcare computing system and technologies, April 17& 18, 2019.

8. Khosravanian, Asieh, et al. "Combining neuro-fuzzy network with genetic algorithm and particle swarm optimization algorithm in classification and recognition of Iranian banknotes". 10th Iranian conference on machine vision and image processing, November 22 &23, 2017.

9. Khosravanian, Asieh, et al. "Presenting a new method by combining the firefly algorithm and support vector regression method in diabetes diagnosis" 2th National Conference on evolutionary Algorithms and Its Applications in Science and Engineering - Payame Noor University of Najafabad - May 12 & 13, 2017.

10. Khosravanian, Asieh, et al. "E-government and barriers to its establishment and implementation in Iran", 4st Applied Science Conference on Telecommunication and Communication Technologies, February 22, 2015.

11. Khosravanian, Asieh, et al. "Designing a backpropagation artificial neural network with SGD algorithm in diabetes diagnosis", 4st Applied Science Conference on Telecommunication and Communication Technologies, February 22, 2015.

12. Khosravanian, Asieh, et al. "Implementation of a fuzzy expert system in evaluating angiographic results", 1 th National Conference on Evolutionary Algorithms and their Applications in Science and Engineering, August 7 & 8 2015.

13. Khosravanian, Asieh, et al. "A Comparative Study of Learning Theories in Psychology with Machine Learning Models" 1st National Conference on New Approaches in Computer Engineering and Information Retrieval. October 7, 2013.

14. Khosravanian, Asieh, "Investigate security challenges, especially privacy in cloud computing", 1st National Conference on New Approaches in Computer Engineering and Information Retrieval. October 7, 2013

15. Khosravanian, Asieh , "Methods of information propagating in wireless sensor networks", 1st National Conference on New Approaches in Computer Engineering and Information Retrieval. October 7, 2013

c) Book

- Author: of the Book "Expert System", 2016 (ISBN: 978-600-432-006-1)