

Jalal Karami CV



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EDUCATION

- **2005 - 2011** **K.N. Toosi University of Technology, GIS Department, Tehran, Iran.**
PhD in GIS
Dissertation: Developing a uncertainty-based Spatio-temporal DSS model for ground water pollution management
- **1999 - 2002** **Tarbiat Modares University, Tehran, Iran.**
M.Sc. in Remote Sensing & GIS,
Dissertation: Object-Based classification of ETM+ images for Malayer region using Artificial Neural Networks
- **1991 - 1995** **Esfahan University, Tehran, Iran.**
B.Sc. in Geography

ACADEMIC EMPLOYMENT

February 2011 – Present **Tarbiat Modares University, Tehran, Iran**
Assistant Professor,
Remote sensing & GIS Department.

HONORS AND AWARDS

2006 **Award**
Awarded for Top Article in Geomatic 85 Conference, NCC, Tehran, Iran

PROFESSIONAL AFFILIATIONS AND SERVICES

Ad-hoc Reviewer

- IEEE Journal of Selected Topics in Earth observation and Remote Sensing (JSTAR)

- Horizon Research publishing corporation, USA
- Environmental Science and Pollution Research
- Journal of Urban - Regional Studies and Research (Esfahan University)
- The Journal of Spatial Planning (Tarbiat Modares University)
- Iranian Journal of Remote Sensing and GIS (Shahid Beheshti University)
- Journal of Geosciences (GSI, Iran)

Professional Organization Member

Iranian Society of Remote sensing & GIS, **Committee Member**

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES AND INVITED BOOK CHAPTERS

PEER-REVIEWED INTERNATIONAL JOURNAL

1. Shirazi, A., A. Shirazy, and J. Karami, Remote Sensing to Identify Copper Alterations and Promising Regions, Sarbishe, South Khorasan, Iran. *International Journal of Geology and Earth Sciences*, 2018. 4: p. 36-52.
2. Etemadi, H., J.M. Smoak, and J. Karami, Land use change assessment in coastal mangrove forests of Iran utilizing satellite imagery and CA–Markov algorithms to monitor and predict future change. *Environmental earth sciences*, 2018. 77(5): p. 208.
3. Shamsoddini, A., M. Aboodi, and J. Karami, TEHRAN AIR POLLUTANTS PREDICTION BASED ON RANDOM FOREST FEATURE SELECTION METHOD. *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences*, 2017. 42.
4. Eisavi, V., S. Homayouni, and J. Karami, Integration of remotely sensed spatial and spectral information for change detection using FAHP. *Journal of the Faculty of Forestry Istanbul University*, 2016. 66(2): p. 524-538.
5. Karami, J., A. Alimohammadi, and T. Seifouri, Water quality analysis using a variable consistency dominance-based rough set approach. *Computers, Environment and Urban Systems*, 2014. 43: p. 25-33.
6. Karami, J., A. Alimohammadi, and S. Modabberi, Analysis of the spatio-temporal patterns of water pollution and source contribution using the MODIS sensor products and multivariate statistical techniques. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2012. 5(4): p. 1243-1255.
7. ALI, M.A., V. ESAVI, and J. KARAMI, ACCURACY ENHANCEMENT IN LAND USE/COVER CLASSIFICATION BASED ON EXTRACTABLE INDICES OF VARIORUM IN SATELLITE IMAGES. 2011.
8. REZA MALEK, M., J. KARAMI, and S. ALIABADY, CLASSIFICATION WITH INTUITITIONISTIC FUZZY REGION IN GEOSPATIAL INFORMATION SYSTEM, in *Applied Artificial Intelligence*. 2006. p. 783-790.

9. Niyeh, M.M., A. Jafarirad, and J. Karami, Hydrothermal Alteration Mapping Using Multispectral Satellite Images in Cenozoic Volcanic Rocks of Tafresh Area, Markazi province, Central Iran.
10. Niyeh, M.M., A. Jafarirad, and J. Karami, Cluster analysis of stream sediment geochemical data in the western part of the 1: 100,000 Tafresh geological sheet in order to find promising areas.

PEER-REVIEWED NATIONAL JOURNAL

1. KARAMI, J., A. MOHAMADI, and M. SHARIFIKIA, URBAN SPATIAL RESILIENCE ZONATION AFTER EARTHQUAKE IN PART OF TEHRAN METROPOLIS (DISTRICT 12), USING OWA ALGORITHM. 2016.
2. Karami, J., S. Delfan, and A. Shamsoddini, Role of Time in Spatial Analysis of Diseases in Tehran. *Journal of Geomatics Science and Technology*, 2016. 5(4): p. 227-238.
3. Jabbedari, M.M., J. Karami, and A.S. Ardekani, The location analysis of the local pharmacies by the multi criteria decision-making AHP-Fuzzy method (case study IRAN-SHIRAZ). *Journal of Fasa University of Medical Sciences*, 2016. 6(1): p. 19-26.
4. Delaviz, Y., J. Karami, and M. Shaygan, Using NSGA-II for Multi-Objective Optimization Allocation of Urban Land Use in Order to Reduce Earthquake Vulnerability. *Journal of Geomatics Science and Technology*, 2016. 5(3): p. 247-264.
5. Raeisi, R., et al., Spatial distribution of multiple sclerosis disease in Chaharmahal va Bakhtiari province in 20-year period. *Shahrekord University of Medical Sciences Journal*, 2013. 15(4).
6. Esavi, V., et al., Comparison the AHP and FUZZY-AHP Decision Making Methods in Underground Dam Site Selection in Taleghan Basin. 2012.
7. KAZEMI, M.A., et al., Alteration mapping at saridoon porphyry copper prospect using short wave infrared spectrometry (PIMA), ASTER satellite image and XRD. 2011.
8. MOBASHERI, M., et al., RECONSTRUCTION OF 6S FOR SATELLITE IMAGES IN IRAN'S ATMOSPHERE (CASE STUDY: TEHRAN). 2009.
9. ASLANI, S., et al., EXTRACTING THE ALTERATION HALOES OF THE SARBISHEH COPPER-GOLD MINERAL PROSPECT USING ASTER SATELLITE DATA. 2008.

BOOK CHAPTERS

1. Malek, M.R., Karami, J. & Aliabady, S., 2006. Classification with intuitionistic fuzzy region in geospatial information system In Ruan, D., D'hondt, P., Fantoni, P.F., Cock, M.D., Nachttegaal, M. & Kerre, E.E. eds. *Applied artificial intelligence* Genova, Italy: World Scientific Publishing Co. Pte. Ltd. , 783.

MANUSCRIPTS IN PREPARATION/SUBMITTED FOR REVIEW _____

CONFERENCE PRESENTATIONS _____

TALKS

POSTERS

TEACHING EXPERIENCE _____

INSTRUCTOR OF RECORD

Winter 2006 till winter 2011

Introduction to GIS (M.Sc. students), University of Tarbiat Modares

Introduction to GIS (M.Sc. students (Jkip programs)), k.n.Toosi
University of technology

Advanced GIS (M.Sc. students), University of Tarbiat Modares

TEACHING ASSISTANTSHIPS

Spring 2011 till now **Advanced GIS (M.Sc. students)**, University of Tarbiat Modares
Spatial models in GIS (M.Sc. students), University of Tarbiat Modares
Application of GIS in Geohazards and environmental resources
(M.Sc. students), University of Tarbiat Modares

Spring 2013 till now **Application of Remote sensing in Geology and mineral exploration**,
University of Polytechnique (Amir Kabir), Faculty of mine and material

THESES SUPERVISED

PHD

1. Modeling and Explanation of urban spatial growth and development pattern, Case study: Gorgan, Abdolhamid Neshat, Department of Geography and Urban Planning, Tarbiat Modares University, 2016

M.SC

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1. Prediction of Tehran Land Use Changes, Using Combined Algorithm of Cellular Automata and Particle swarm Optimization, Hatef Rahman Salehi, Remote Sensing and GIS Group, Tarbiat Modares University, 2013
2. Allocation of agricultural Land use by using Goal-based algorithms in GIS environment, Somayeh Jagher, Remote Sensing and GIS, Tarbiat Modares University, 2013
3. Modeling city evacuation planning in case of earthquake using imperialist competition algorithm (ICA), Morteza Asadi, Remote Sensing and GIS, Tarbiat Modares University, 2014
4. Implementation of a Geographic Information System Based on Public Participation in Land Use Management (Case Study: Varamin plain), Pejman Taheri, Remote Sensing and GIS Department, Tarbiat Modares University, 2014
5. Urban Resiliency in post-earthquake crisis management using intelligent multi-agent system, Case study: District 12 of Tehran, Zahra Abbas pour, Remote Sensing and GIS Department, Tarbiat Modares University
6. Application of wavelet transform algorithms, multivariate analyzes and artificial neural networks in air Pollution modeling in Tehran, Mohammad Reza Aboodi, Remote Sensing and GIS Department, Tarbiat Modares University, 1394
7. Evaluation of BBO algorithm for optimal allocation of spatial deployment pattern of Isfahan Industrial Complexes, Mahnaz Daneshvar, Remote Sensing and GIS Group, Tarbiat Modares University, 1395
8. Application of Granule Computation Algorithm in Spatial Analysis of Deadly Patterns in Tehran, Sajjad Delfan Biranvand, Remote Sensing and GIS, Tarbiat Modares University, 1394
9. Agent-Based Modeling of the Theft of houses in Tehran, Nader Aminmfard, Remote Sensing and GIS, Tarbiat Modares University, 1394
10. modeling the land cover changes in order to explanation of the Drought Process, Abdollah Klorojan, Remote Sensing and GIS Group, Tarbiat Modares University, 2014
11. Agent-based Modeling for analysis of patio-temporal patterns of cancer in Fars province, Reza Akbari, Remote Sensing and GIS Department, Tarbiat Modares University, 1397
12. Application of the Fuzzy Inference System in Explaining the Flood Risk Predictability in the Nekarood Basin, Rahimeh Vali Poor, Remote Sensing and GIS, Tarbiat Modares University, 1398
13. Spatial Data Mining in order to explain relation of Air Pollution Pattern with Land Use in Tehran, Majid Sadr Sadr abadi, Remote Sensing and GIS, Tarbiat Modares University, 1396
14. Analysis and Modeling of land use change in Afghanistan's capital, Kabul, Mohammad Nasserri, Remote Sensing and GIS Group, Tarbiat Modares University, 1396
15. Geographic Information System Based on public Participatory Patterns in Application to Multi-Purpose Land Planning: A Case Study of Mahmoudabad City, Farnaz Asghari, Remote Sensing and GIS, Tarbiat Modares University, 1396

16. 16. Spatial Analysis of MS in Chaharmahal and Bakhtiari Province, Reza reesi, Remote Sensing and GIS, Yazd University of Science and Research, 2012
17. 17. Allocation of agricultural land use, using NSGAI algorithm, Shekoofeh Akakesh, Remote sensing and GIS group, Yazd University of Science and Research, 2013
18. 18. Optimal Location of Primary Schools in District 22 of Tehran City Using OWA-AHP, Reza Saei, Remote Sensing and GIS, Yazd University of Science and Research, 2013
19. 19. Monitoring of Urmia Lake Changes Using Satellite Images and Artificial Neural Networks, Mehdi Akbari, Remote Sensing and GIS, Yazd University of Science and Research, 2013

MASTERS

SOME PROFESSIONAL AND TECHNICAL EXPERIENCE (RESEARCH PROJECTS)

1. Project Manager "zoning landslide-prone areas in the Lorestan province with the help of remote sensing techniques and GIS", Management and Planning Organization of Lorestan province, 2006
2. Technical Director of "mapping the risk of rockfall, landslide and liquefaction in the South East of Iran (Kerman and Sistan and Baluchestan Provinces), Ministry of Roads and City Planning, 2006
3. Technical Director of "Land suitability mapping for South East of Iran (Kerman and Sistan and Baluchistan) based on geological, geotechnical, hydrological and geomorphological aspects and with the help of GIS techniques in order to determine the strategy and development of urban areas, Ministry of Roads and City Planning, 2006
4. Technical director of the project "atlas and comprehensive database in GIS on order to mapping of gas storage potentials in countrywide scale" gas company, 2016
5. Project Manager "Mineral Potential Mapping using remote sensing techniques and ASTER imagery for areas khonj and Pynavnd", Iran Minerals Production and Supply Company.
6. Project Manager " identify areas of mineral Prospect area of Reineh, Nomar, shah zeyd and Shangoldeh using remote sensing and GIS in the province of Mazandaran, Spring 2006
7. Technical Project Director of Remote Sensing studies 12 Geological sheets of Fars province, Kan Iran co., Summer 2007
8. Technical Project Director of " identify and spatial modeling of mineral exploration priorities for promising exploration areas in East Azarbaijan Province ", Pychab Kavosh company, Spring 2008

TEACHING INTERESTS

Lectures: Spatial Decision support systems (SDSS) and Multi-Criteria Decision Making (MCDM), Spatial Data mining, Spatial Time series analysis, Computational Intelligence

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(ANN, Fuzzy reasoning, and GA), Heuristic and Meta-Heuristic Optimization Algorithms (PSO, ACO, ICA, BBO), Health GIS.