

ALI ASGHAR ALESHEIKH

Associate Professor

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PERSONAL INFORMATION

Date of Birth: May 09 1965
Place of Birth: Mashhad, Iran
Citizenship: Iran
Sex: Male
Marital Status: Married

EDUCATION

- Sept/93 – June/98* **The University of Calgary, Calgary, Canada**

Ph.D. in Geomatics Engineering
Specialization: Geospatial Information System (GIS)
Thesis title: Modeling and managing uncertainty in object-based Geospatial Information Systems (GIS)
- Sept/91 - Sept/93* **The University of New Brunswick, Fredericton, Canada**

M. Eng. in Geomatics Engineering
Specialization: Digital Photogrammetry
Thesis title: Generating digital orthoimages using a hybrid GIS
- Sept/84 - Sept/88* **K.N. Toosi University of Technology, Tehran, Iran**

B.Sc. in Surveying Engineering
Department of Surveying Engineering, K.N. Toosi Technical University, Tehran, Iran.

PROFESSIONAL WORK EXPERIENCE

- Oct. 2007– present* **Associate Professor**, Department of GIS, Faculty of Geodesy and Geomatics Engineering, K.N. Toosi University of Technology, Tehran, Iran.
- June 2000 – Oct. 2007* **Assistant Professor**, Department of GIS, Faculty of Geodesy and Geomatics Engineering, K.N. Toosi University of Technology, Tehran, Iran.
- Sept. 98 - May 2000* **Product Manager**, MRF Geosystems, Calgary, AB, Canada.
- Sept 95 – Sept 98* **Teaching/Research Assistant**, The University of Calgary, Calgary, AB, Canada.
- Jan 89 – Sept 90* **Consultant**, National Cartographic Center, Tehran, Iran

AWARDS AND HONORS

- 2010, 2008 **Research Recognition Award**, K.N. Toosi University of Technology, Tehran, Iran.
- 2008 **Best Paper Presentation Award**, 11th Annual International Conference and Exhibition on Geospatial Information, Technology and Applications, Map India 2008. Delhi, India.
- 2003, 2008 **Best Paper Award**, Geomatics 82 and Geomatics 87 Conferences, Tehran, Iran
- 2002 **Best Instructor Award**, K.N. Toosi University of Technology, Tehran, Iran.
- 1996 – 97 **Excellence in Lab Instruction Award**, Dept. Of Geomatics Engineering, The University of Calgary. Calgary, AB, Canada
- 1995 – 1996 **Special Graduate Achievement Award**, The University of Calgary, Calgary, AB, Canada.
- 1993 – 1997 **Special Doctoral Fellowship Award**, Ministry of Culture and Higher Education of Iran.

SCIENTIFIC MEMBERSHIPS

- 2011 Member of the Editorial Board of International Geoinformatics Research and Development Journal
- 2011 Scientific Committee Member of 5th International Symposium on Advances in Science & Technology (5thSASTech) Conference
- 2010 Scientific Committee Member of ICOPMAS 2010 Conference
- 2010 Member of the Review Board of GSDI 12 World Conference
- 2009- Member of the Editorial Board of Journal of Surveying Engineering (In Persian)
- 2008- Member of the Editorial Board of Marine Journal of Science and Technology (In Persian)
- 2008- Scientific Member of National Geospatial Data Infrastructure committee
- 2003- 2010 Scientific Committee member of " GIS 86-89, Geomatics 80-90, Machine vision and image processing 81, Global Positioning Systems 80, Internet Cities 80 " Conferences (In Persian)
- 2003 Country Editorial of GIM International Journal
- 2003 Conference Chair " Assessing GIT issues in Iran"
- 2002-2003 Associate Chair "Iranian GIS/RS Society"
- 2002-2003 Committee Member "National Spatial Data "

PROFESSIONAL QUALIFICATIONS

Familiar with Web technologies namely Web Services technology, AJAX, etc. and Web Mapping Open APIs namely Google Maps API, OpenLayers API, etc.

Familiar with programming language such as VB.NET and VBA, and Professional in C# and JavaScript

STUDENT SUPERVISION

2001-2011 38 M.Sc. Students

2002-2011 9 Ph.D. Students

RECENT PUBLICATIONS (in English)

Chapter Book Publication

1. Mahdi Hashemi and **Ali A. Alesheikh** (2011). "Spatio_Temporal Analysis of Tehran's Historical Earthquakes Trends" in Advancing Geoinformation Science for a Changing World" Chapter1. Edited by Staas Geertman, Wolfgang Reinhardt, and Fred Toppen, Springer-Verlag Berlin Heidelberg. ISBN: 978-3-642-19788-8.
2. **Alesheikh**, A.A., J.A.R. Blais, M. A. Chapman, and H. Karimi (1999). "Rigorous Geospatial Data Uncertainty Models for GIS" in "Spatial Accuracy Assessment: Land Information Uncertainty in Natural Resources", Chapter 24. Edited by: Kim Lowell and Annick Jatou. Ann Arbor Press, Michigan, USA.
3. Anahid Bassiri, Mohammad R. Malek and **Ali A. Alesheikh** (2008)." Rough Spatio-Temporal Topological Relationships" in "Computational Intelligence in Decision and Control", pp. 127 – 132. Edited by: Da Ruan, Javier Montero, Jie Lu, Luis Martinez, Pierre Dhondt and Etienne E. Kerre. World Scientific Proceedings Series on Computer Engineering and Information Science, Singapore.
4. Saeed Behzadi and **Ali A. Alesheikh** (2008). "Developing a Genetic Algorithm for Solving Shortest Path Problem" in "New Aspects in Urban Planning and Transportation". Edited by: Valeri Mladenov, Zoran Bojkovic, Stamatios Kartalopoulos, and Argyrios Varonides. Pp. 23-27. WSEAS Press. ISBN: 978-960-6766-87-9.
5. Mohammad H. Vahidnia, **Ali A. Alesheikh**, Abbas Alimohammadi, and Farhad Hosseinali (2009). "Design and Development of an Intelligent Extension for Mapping Landslide Susceptibility Using Artificial Neural Network" LNCS 5592, Part I, pp. 17–32, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.
6. Ali R. Vafaeinezhad, **Ali A. Alesheikh**, Majid Hamrah, Reza Nourjou, and Roozbeh Shad (2009). "Using GIS to Develop an Efficient Spatio-temporal Task Allocation Algorithm to Human Groups in an Entirely Dynamic Environment Case Study: Earthquake Rescue Teams" LNCS 5592, Part I, pp. 66–78, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.

7. Mohammad R. Jelokhani-Niaraki, **Ali A. Alesheikh**, Abbas Alimohammadi, and Abolghasem Sadeghi-Niaraki (2009). "Designing Road Maintenance Data Model Using Dynamic Segmentation Techniques" LNCS 5592, Part I, pp. 442–452, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.
8. Anahid Bassiri, Mohammad R. Malek, and **Ali A. Alesheikh** (2009). "Rough Qualitative Spatial Reasoning Based on Rough Topology" LNCS 5592, Part I, pp. 479–489, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.
9. Anahid Bassiri, Mohammad R. Malek, **Ali A. Alesheikh**, and Pooria Amirian (2009). "Temporal Relationships between Rough Time Intervals" LNCS 5592, Part I, pp. 543–552, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.
10. Saeed Behzadi, **Ali A. Alesheikh**, and Mohammad R. Malek (2009). "A Novel Tree Graph Data Structure for Point Datasets" LNCS 5593, Part II, pp. 572–579, Springer-Verlag Berlin Heidelberg. ISBN-15: 978-3-642-02453-5.
11. Farhad Hosseinali, Abbas Alimohammadi and **Ali A. Alesheikh** (2009). "Assessing Uncertainty in GIS Using Artificial Neural Networks" in "Spatial Data Quality from Process to Decision" Chapter 8. Edited by: Rodolphe Devillers and Hellen Goodchild. Pp. 87-96. CRC Press, Taylors and Francis Group. London, U.K.

Journal Papers

12. Mahdi Hashemi and **Ali A. Alesheikh** (2011). "A GIS-based earthquake damage assessment and settlement methodology" Soil Dynamics and Earthquake Engineering Vol. 31, pp 1607-1617.
13. Mohammad H. Vahidnia, **Ali A. Alesheikh**, Saeed Behzadi and Sara Salehi (2011). "Modeling the spread of spatio-temporal phenomena through the incorporation of ANFIS and genetically-controlled cellular automata: A case study on forest fire." International Journal of Digital Earth (Accepted)
14. Mohammad E. Poorazizi and **Ali A. Alesheikh** (2011). "Monitoring real-time environmental information using Web 2.0 and GIServices technology". International Journal of Civil Engineering. Vol. 9, No. 1, pp. 63-70.
15. Mohammad H. Vahidnia, **Ali A. Alesheikh**, Abbas Alimohammadi, and Farhad Hosseinali (2010). "A GIS-based Neuro-fuzzy Procedure for Integrating Knowledge and Data in Landslide Susceptibility Mapping." Computers & Geosciences, Vol. 36, No. 9, pp. 1101-1114.
16. Pouria Amirian, **Ali A. Alesheikh** and Anahid Bassiri (2010). "Standards-based, Interoperable Services for Accessing Urban Services Data for the City of Tehran." Computers, Environment and Urban Systems, Vol. 34, No. 4, pp. 309-321.
17. Ali R. Vafaeinezhad, **Ali A. Alesheikh**, and Jafar Nouri (2010). "Developing a Spatio-temporal Model of Risk Management for Earthquake Life Detection Rescue Team." International Journal of Environmental Science and Technology, Vol. 7, No. 2. Pp. 243-250.
18. Mohammadreza Jelokhani, **Ali A. Alesheikh** and Abolghassem Sadeghi Niaraki (2010). "An Efficient Approach for Historical Storage and Retrieval of Segmented Road Data in Geographic Information System for Transportation". Chinese Geographical Science. Vol. 20, No. 3. Pp. 236-242.
19. Mohammad Dehghani, Parvin Farshchi, Ali Danekar, Mahmoud Karami and **Ali A. Alesheikh** (2010). "Recreation value of Hara Biosphere Reserve Using Willingness-to-pay method." International Journal of Environmental Research, Vol. 4, No. 2. Pp. 271-280.

20. Jafar Nouri, S. A. Mirbagheri, F. Farrokhian, N. Jaafarzadeh, and **Ali A. Alesheikh** (2010). "Water quality variability and eutrophic state in wet and dry years in wetlands of the semiarid and arid regions" *Environmental Earth Sciences*. Vol. 59, No. 7. pp. 1397-1407.
21. Reza Khatami, **Ali A. Alesheikh** and Majid Hamrah (2010). "A Mixed Approach for Automated Spatial Ontology Alignment" *Journal of Spatial Science*. Vol. 55, No. 2. pp. 237-255.
22. Ali Golnarkar, **Ali A. Alesheikh**, and Mohammad R. Malek (2010). "Solving Best Path Problem on Multimodal Transportation Networks with Fuzzy Costs" *Iranian Journal of Fuzzy Systems*. Vol. 7, No. 3. pp. 1-13.
23. Nazila Mohammadi, Mohammad R. Malek, and **Ali A. Alesheikh** (2010). "A new GA based solution for capacitated multi source Weber problem." *International Journal of Computational Intelligence System*. Vol. 3, No. 5, pp. 514-521.
24. Ebrahim Poorazizi, **Ali A. Alesheikh**, and M. Amini (2010). "The Use of Web Services Technology for Mapping and Sharing Environmental Information in Virtual Globe Applications". *International Review on Computers and Software*. Vol. 5, No. 3, pp. 342-347.
25. Naderi G., Hemami M., Mohammadi S., Riazi B., Karami M., Kaboli M. and **Alesheikh A.** (2010). "Effects of vegetation and soil conditions on burrow structure and site selection of rare desert rodent – Iranian jerboa (*Allactaga firouzi*)". *Polish Journal of Ecology*. (Accepted).
26. **Ali A. Alesheikh** and Manuchehr Omidvari (2010). "The application of GIS in Urban traffic noise pollution (Case study: Tehran district 1)". *International Journal of Occupational Hygiene*. Vol. 2, No. 1, pp. 87-92.
27. Mohammadreza Jelokhani, **Ali A. Alesheikh**, Abbas Alimohammadi, and Abolghassem Sadeghi Niaraki (2010). "Towards a Rule Driven Approach for Updating Dynamic Road Segments". *PROMET-Traffic & Transportation*. Vol. 22, No. 6, pp. 405-411.
28. Ahmadreza Ebrahimipoor, Abbas Alimohammadi, **Ali A. Alesheikh**, and Hamid Aghighi (2009). "Routing of Water Pipeline Using GIS and Genetic Algorithm" *Journal of Applied Sciences*. Vol. 9, Issue 23, pp. 4137-4145.
29. Nazila Mohammadi, Mohammad R. Malek, and **Ali A. Alesheikh** (2009). "Evaluation of Location/Allocation Methods in a Continuous Space Using Genetic Algorithm" *International Review on Computers and Software*. Vol. 4, No. 6, pp. 743-748.
30. Mohammad H. Vahidnia, **Ali A. Alesheikh**, and Abbas Alimohammadi (2009). "Hospital Site Selection Using Fuzzy AHP and Its Derivatives" *Journal of Environmental Management*. Vol. 90, No. 10. pp. 3048-3056.
31. Gholamreza Naderi, Mahmoud R. Hemami, Borhan Riazii, and **Ali A. Alesheikh** (2009). "Notes on the ecological peculiarities of the Iranian Jerboa, *Allactaga firouzi* Womochel, 1978 (Mammalia: Dipodidae)" *Zoology in the Middle East*. Vol. 47, pp. 21-28.
32. Mohammad H. Vahidnia, **Ali A. Alesheikh**, Abbas Alimohammadi, and Farhad Hosseinali (2009). "Landslide Hazard Zonation Using Quantitative Methods in GIS" *International Journal of Civil Engineering*. Vol. 7, No. 3. pp. 176-189.
33. Ali R. Vafaeinezhad, **Ali A. Alesheikh**, Ali A. Roshannejad and Roozbeh Shad (2009). "A New Approach for Modeling Spatio-Temporal Events in an Earthquake Rescue Scenario" *Journal of Applied Sciences*, Vol. 9, No. 3, pp. 513-520.

34. Meisam Sheleiby, Mohammad R. Malek, **Ali A. Alesheikh**, and Pouria Amirian (2008). "Automatic Map Scaling in Car Navigation Systems Using Context-aware Computing" *World Journal of Applied Sciences*, Vol. 3 (Supplement 1) pp. 101-106.
35. Majid Alivand, **Ali A. Alesheikh** and Mohammad R. Malek (2008). "A New Method for Finding Optimal Path in Dynamic Networks" *World Journal of Applied Sciences*, Vol. 3 (Supplement 1) pp. 25-33.
36. Majid Alivand, **Ali A. Alesheikh** and Mohammad R. Malek (2008). "Introducing a Risk Parameter for Evaluating the Optimal Path in Location Based Services" *Journal of Applied Sciences*, Vol. 8, Issue 23, pp. 4284-4293.
37. Yasser Ebrahimian Ghajary and **Ali A. Alesheikh** (2008). "Developing a Moving Objects Management System" *Journal of Applied Sciences*, Vol. 8, No. 21, pp. 3827-3835.
38. **Alesheikh, Ali A.**, Soltani, Mohammad J., Nouri, N., and Khalilzadeh, M. (2008). "Land Assessment for Flood Spreading Site Selection Using Geospatial Information System" *International Journal of Environmental Science and Technology*, Vol. 5, No. 4, pp 455-462.
39. Saeed Behzadi, **Ali A. Alesheikh** and Ebrahim Poorazizi (2008). "Developing a Genetic Algorithm to Solve Shortest Path Problem on a Raster Data Model" *Journal of Applied Sciences*. Vol. 8, No. 18, pp. 3289-3293.
40. Ebrahim Poorazizi, **Ali A. Alesheikh** and Saeed Behzadi (2008). "Developing a Mobile GIS for Field Geospatial Data Acquisition" *Journal of Applied Sciences*. Vol. 8, No. 18, pp. 3279-3283.
41. Amirian, Pouria, and **Ali A. Alesheikh** (2008). "Implementation of a Geospatial Web service Using Web Services Technologies and Native XML Databases". *Middle-East Journal of Scientific Research* Vol. 3, No. 1, pp. 36-48.
42. Amirian, Pouria, and **Ali A. Alesheikh** (2008). "A Service Oriented Framework for Disseminating Geospatial Data to Mobile, Desktop and Web Clients". *World Applied Sciences Journal*. Vol. 8, No.1, pp. 140-153.
43. Amirian, Pouria, and **Ali A. Alesheikh** (2008). "A Hybrid Architecture for Implementing Efficient Geospatial Web Services: Integrating .NET Remoting and Web Services Technologies". *Journal of Applied Sciences*. Vol. 8, No.5, pp. 730-742.
44. Hosseinali, Farhad and **Ali A. Alesheikh** (2008). "Weighting Spatial Information in GIS for Copper Mining Exploration". *American Journal of Applied Sciences*. Vol. 5, No.9, pp. 1187-1198.
45. Amirian, Pouria, and **Ali A. Alesheikh** (2008). "Publishing Geospatial Data through Geospatial Web Service and XML Database System". *American Journal of Applied Sciences*. Vol. 5, No.10, pp. 1358-1368.
46. **Alesheikh, Ali A.**, and F. Sadeghi Naeeni Fard (2007). "Design and Implementation of a Knowledge Based System to Improve Maximum Likelihood Classification Accuracy" *Canadian Journal of Remote Sensing*, Vol. 33, No.6, pp. 459-467.
47. **Alesheikh, A. Ali, A.**, Ghorbanali, and N. Nouri (2007). "Coastline Change Detection Using Remote Sensing" *International Journal of Environmental Science and Technology*, Vol. 4, No. 1, Pp 61-66.

48. **Alesheikh**, Ali A., A. K. Oskouei, F. Atabi, and H. Helali (2005). "Providing Interoperability for Air Quality in-Situ Sensors Observations Using GML Technology" International Journal of Environmental Science and Technology, Vol. 2, No. 2, Pp 133-140.

Refereed Conference Publications (More than 80)

RESEARCH INTERESTS

Design and Implementation of Spatial Data Infrastructures, Internet GIS, Wireless GIS, Intelligent Transportation Systems, Meta Data Standards, Spatial Data Clearinghouse

RESEARCH PROJECTS

May/2000 –Now

Project Manager of:

Needs Analysis and Conceptual Design of GIS for Telecommunication Infrastructure Company (TIC) financially sponsored by Iranian Telecommunication Centre

Design and Development of a spatial Database for Foolad Mobarakeh Company financially sponsored by Foolad Mobarakeh Complex

Feasibility Studies of GIS Applications in Power Industry financially sponsored by Tehran Regional Power Company .

The Development of a National Spatial data Clearinghouse” financially sponsored by the ministry of communication and Information Technology.

Design and Implementation of a National Spatial Data Standard financially sponsored by Iranian Remote Sensing Centre.

Feasibility Studies of Intelligent Transportation Systems for Traffic Management financially sponsored by Road Ministry.

Developing a Tracking System for Fleet Management financially sponsored by Road Ministry.

Iranian Roads Web GIS financially sponsored by Terminal and Transportation Organization.