

Mohammad Akbari

Date of Birth: 5th Jan., 1985

Civil Engineering Dept.
University of Birjand
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Major Interests

- Spatio-Temporal Data Mining
 - Co-location Mining
 - Association Rule Mining
- Air pollution and GIS Modeling
 - Urban Air Pollution Modeling
- Artificial Intelligence
- Free/Open Source Software GIS

Education

Ph.D. in GIS
Sep. 2009 – Aug. 2015

University of Tehran, Tehran, Iran
Geomatics & Surveying Engineering Department
GPA: 19/20

M.Sc. in GIS
Sep. 2007 - Sep. 2009

University of Tehran, Tehran, Iran
Geomatics & Surveying Engineering Department
GPA: 17.82/20

B.Sc. in Surveying Eng.
Sep. 2003 – Jul. 2007

University of Tehran, Tehran, Iran
Geomatics & Surveying Engineering Department
GPA: 16.73/20

Diploma in Mathematics
Sep. 1999 – Sep. 2003

Alame Amini High School, Birjand, Iran
GPA: 19.53/20

Awards and Honors

- Ranked **1st** among the technical high school students of the province, 2001
- Ranked **1st** among B.Sc. students of Surveying engineering, 2007
- Ranked **2nd** among students for Ph.D. entrance exam, 2009
- Reviewer of **International Journal of Computer Science and Application (IJCSA)** journal

Research Experience

Research Scholar

5 Months research on “Modeling of Air Pollution in Urban Areas Based on Spatio- Temporal Data Mining” at University of Zurich

Advisor: Prof. R. Weibel

Ph.D. Thesis

Modeling of Air Pollution in Urban Areas Based on Spatio- Temporal Data Mining

Advisor: Prof. F. Samadzadehan

M. Sc. Thesis	Assessment and Evaluation of Important Free/Open Source GIS Software based on 3D capabilities <i>Advisor: Dr. M. A. Rajabi</i>
B. Sc. Thesis	Application of GIS in Urban Planning of municipalities <i>Advisor: Dr. M. R. Delavar</i>
Selected Graduate Term Course	<ul style="list-style-type: none"> • Geospatial Information System I & II with Dr. M. R. Delavar • Digital Terrain Modeling with Dr. M. R. Delavar • Temporal GIS course with Dr. M. R. Delavar • Computational Geometry with Dr. F. Hakim pour • RS & GIS Integration course with Dr. M. A. Rajabi • Quality Control in GIS with Dr. M. R. Delavar

Publications

Journal Papers	<ul style="list-style-type: none"> • Mousavi, A., M. A. Rajabi and M. Akbari, "Design and Implementation of A GSM Based Automatic Vehicle Location System", <i>ICCSA 2009, Published in LNCS</i>, ISSN: 0302-9743, Korea. • Akbari, M., and M. A. Rajabi, " Evaluation of Desktop Free/Open Source GIS Software Based On Functional and Non-Functional Capabilities", Published in <i>Technical Gazette/Tehnički vjesnik Journal</i>, ISSN:1330-3651, 06-09-2012. • Akbari, M., and F. Samadzadegan, " New Regional Co-location Pattern Mining Method Using Fuzzy Definition of Neighborhood", Published in <i>Advances in Computer Sciences: an International Journal</i>, Volume 3, Issue 3, ISSN: 2322-5157, 2014. • Akbari, M., and S. R. Hashemi Peikar, " Evaluation of Free/Open Source Software Using OSMM Model, Case Study: WebGIS and Spatial Database", Published in <i>Advances in Computer Sciences: an International Journal</i>, Volume 3, Issue 5, ISSN: 2322-5157, 2014. • Akbari, M., F. Samadzadegan, and R. Weibel, "A Generic Regional Spatio-Temporal Co-occurrence Pattern Mining Model: A Case Study for Air Pollution", Published in <i>Journal of Geographical Systems</i>, Volume 17, No. 3, ISSN: 1435-5930, June 2015. • Akbari, M., and F. Samadzadegan, "Identification of air pollution patterns using a modified fuzzy co-occurrence pattern mining method", Published in <i>International Journal of Environmental Science and Technology</i>, Volume 12, No. 11, ISSN: 1735-1472, November 2015. • Akbari, M., and F. Samadzadegan, "Urban air pollution pattern mining using an extended spatial co-location data mining method",
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Conference Papers

- Chavoshi, S.H., M. R. Delavar, **M. Akbari**, M. R. Malek and A. U. Frank, "Agent-Based Simulation to Locate Optimum Fire Stations", *GIS 86 and ISPRS Workshop on GI and DSS*, Jan. 6-7, 2008, NCC, Tehran, Iran.
- Alinia H., M. R. Delavar, A. Tayyebi and **M. Akbari**, "K-Nearest Neighbor Search Algorithm for Dynamic Delaunay Triangulation", *MapAsia 2008*, Malaysia.
- Effati, M., M. R. Delavar and **M. Akbari**, "Evaluation and Revision of SRTM Data as a Suitable Source of Elevation Information for GIS Applications", *EOGC 2009*, China.
- Naghdi, M., M. A. Rajabi, **M. Akbari** and Ali mousavi "Risk evaluation of DEM errors impact on natural environment", *The 3rd National Conference on World Environment Day*, 8th june 2009, University of Tehran, Tehran, Iran. (In Persian)
- Chavoshi, S. H., M. R. Delavar, Ali Mousavi and **M. Akbari**, "Flood Modeling by using Geospatial Information System (GIS)", *NDM 2009*, Bangkok, Thailand.
- **Akbari, M.**, M. A. Rajabi and A. Mousavi, "Data Manipulation by PostGIS as a Free/Open Source Database for Web GIS Applications", *ISSA 2009*, China.
- **Akbari, M.**, M. A. Rajabi and A. Mousavi, "Evaluation of Free/Open Source Desktop GIS Software Case Study: 3D Functionality", *ISDE6 2009*, China.
- Mousavi, A., M. A. Rajabi and **M. Akbari**, "Designing a Spatial-Temporal Framework for Emergency Location Services", *ISDE6 2009*, China.
- **Akbari, M.**, M. A. Rajabi and A. Mousavi, "Using a Web-based GIS for Urban Transport System to Reduce Air Pollution, (Case Study: Region #12 of Tehran)", *Evaluation of Urban Transport and Traffic Conference*, 2010, Tehran. (In Persian)
- Abedini, A. and **M. Akbari**, "Designing a Pubic Urban Transport GI System for Using on The Web", *First National Conference of Geomatic in Service of Society 2011*, Tehran. (In Persian)
- **Akbari, M.** And S. Bouzari "Design and Implementation of a Geospatial Information System as a Decision Support System in Higher Education System", *First National Conference of Geomatic in Service of Society 2011*, Tehran. (In Persian)
- **Akbari, M.** and A. Abedini, "New Method in Using GIS Capabilities for First Phase Studies of Digital Road Designing", *National Conference of Transportation Infrastructures 2013*, Tehran. (In Persian)
- Baazm, Z., and **M. Akbari**, "Assessment of Role and Contribution

of GIS in Earthquake Disaster Management, (Case Study: Birjand)”, *6th International Conference on Integrated Natural Disaster Management*, 15-16 Feb 2015, Mashhad. (In Persian)

Book

- **Akbari, M.** and M. Effati, “A-to-Z GIS ”, Translated in Persian, Elm Memar Press, Tehran, Iran. 2010-2011. (In Press)
- Mostafaei, A. R. and **M. Akbari**, “Surveying Problem Solving Package for Building Construction Organization Entrance Exams”, Published in Persian, Dayere Danesh Press, Tehran, Iran. 2012.
- **Akbari, M.**, O. Kazemizade, and M. J. Mirzade, “Step by Step Tutorial of Civil 3D software”, Published and Translated in Persian, Dayere Danesh Press, Tehran, Iran. 2012-2013.

Work Experience

Research Institute of Mellat Bank of Iran 2009

- A research on “Web GIS for Bank Branches in Tehran” for Bank Mellat of Iran

Research and Planning Institute of Higher Education , 2009-2010

- Feasibility Study and Implementation of a GIS as a Decision Support System for Higher Education System

Boom Abad GIS Consultant Company (the project Manager) 2010-2011

- Design and Implementation of Spatial Database for Forestry and Pastures Organization of Iran.

Building Engineering Organization of South Khorasan 2011 – present

- The head of Surveying Eng. Committee

Building Engineering Organization of South Khorasan 2015 - present

- The board of director of Building Engineering Organization of South Khorasan

Dept. of Civil Eng., University of Birjand

- Faculty member

Teaching Experience

Teaching Assistant 2006-2009 (6 semester)

- Surveying I & II, Geomatics and Surveying Eng. Dept., Univ. of Tehran. Responsibilities included preparing problem sets, taking quizzes along with solving the problems in a ‘Problem Solving Class’, grading the homeworks and the final exams.

Teaching , 2006-2009 (6 semester)

- Field Surveying I & II, Civil Eng. Dept., Univ. of Tehran.

Teaching , 2009-2010

- Field Surveying I & II, Geomatics and Surveying Eng. Dept., Univ. of Tehran.

Teaching , 2009-2010	<ul style="list-style-type: none"> • Surveying, Mine Eng. Dept., Univ. of Tehran.
Teaching , 2011-2016	<ul style="list-style-type: none"> • Surveying, Civil Eng. Dept., University of Birjand.
Teaching , 2011-2013	<ul style="list-style-type: none"> • Surveying, Civil Eng. Dept., Technical University of Birjand.
Teaching , 2011-2016	<ul style="list-style-type: none"> • Photogrammetry, Civil Eng. Dept., University of Birjand.
Teaching , 2013	<ul style="list-style-type: none"> • GIS, Civil Eng. Dept., Technical University of Birjand
Teaching , 2013-2016	<ul style="list-style-type: none"> • GIS, Civil Eng. Dept., University of Birjand
Teaching , 2012	<ul style="list-style-type: none"> • Surveying, Mine Eng. Dept., Technical University of Birjand
Teaching , 2013-2016	<ul style="list-style-type: none"> • Road Construction Project, Civil Eng. Dept., Non-Profit University of Hormozan, Birjand

Language and Computer Skills

University of Tehran English Exam	<ul style="list-style-type: none"> • Score : 78 from 100
Programming languages	<ul style="list-style-type: none"> • Java(<i>Elementry</i>), MATLAB
Software	<ul style="list-style-type: none"> • ArcGIS, ArcView, AutoCAD, AutoCAD Land Desktop, Surfer, SDR Map, AutoCAD Civil 3D, Mapsource
Other	<ul style="list-style-type: none"> • MS Office