# Dr. Abolghasem Sadeghi-Niaraki

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## Contact Information:

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  #253, Yongh Yun-Dong, Nam-Ku, Incheon, 402-751, South Korea.
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## Academic Qualifications:

| From | To | Type of Certificate or Diploma issued | Name of Institution |
|---|---|---|---|
| March 2005 | August 2008 | PhD of GIS Engineering (Geographic Information System) | Dept. of Geoinformatic Engineering, Inha University, South Korea. |
| Feb. 2000 | Nov. 2002 | M.Sc. of GIS Engineering. | Department of GIS Engineering, Geomatics Engineering Faculty, K.N. Toosi University of Technology |
| Sep. 1995 | Sep. 1999 | B.Sc. on Civil Engineering-Surveying (Geomatics) | Geomatics Engineering Faculty, K.N. Toosi University of Technology |
| Jun. 1982 | Jun. 1994 | Diploma in Physics and Mathematics | Amoeeyan High School |

## Professional Work Experiences:

| From | To | Position/Project | Location |
|---|---|---|---|
| March 2009 | March 2011 | Lecturer Position | Dept. of Geoinformatic Engineering, Inha University, South Korea. |
| Sep. 2008 | March 2009 | Post-Doctoral Fellowships | Dept. of Geoinformatic Engineering, Inha University, South Korea. |
| April 2000 | Feb. 2005 | GIS and IT Project Manager | Road Maintenance and Transportation Organization (RMTO)-IT&GIS Office, Tehran, Iran. |

## Research Projects Experiences:

| From | To | Project | Location |
|---|---|---|---|
| August 2008 | August 2010 | Ubiquitous multi-transportation system for Gimbo Airport | Ministry of Construction and Transportation, South Korea |
| Sept. 2008 | Feb 2009 | Ontology based architecture using semantic web technology | Inha University, Geoinformatic Eng. Dept., South Korea. |
| Feb 2007 | Oct. 2007 | Ontology based personalized route planning project using Semantic Web concept and Multicriteria decision making technique. | Korea geoSpatial Information & Communication (KSIC) Co., Ltd, Seoul, South Korea. |
| Jan. 2006 | April. | Design and implementation of a prototype | Inha University, |

| | 2006 | based on GIS Web services | Geoinformatic Eng. Dept., South Korea. |
|---|---|---|---|
| Oct. 2005 | Dec. 2005 | Linear feature Extraction from Spot Satellite Imagery | Inha University, Geoinformatic Eng. Dept., South Korea. |
| Oct. 2005 | Dec. 2005 | Designing and developing distributed GIS using ArcIMS, ArcSDE and Oracle. | Inha University, Geoinformatic Eng. Dept., South Korea. |
| July 2005 | Sep 2005 | IntraMapObject and IntraMap component training Internship Program | KSIC Co., Ltd, Seoul, South Korea. |
| July 2004 | Feb 2005 | ITS (Intelligent Transportation System) Project "The Application of ITS Technology in Traffic Systems and Road Safety in Iran" | Road Maintenance and Transportation Organization (RMTO)-IT& GIS Office |
| Jan.2004 | Jan 2005 | Car Accident analysis on Interurban Roads | RMTO |
| Feb. 2004 | Feb. 2005 | - Standardization of GIT.<br>- Clearing House. | K.N.Toosi Univ. |
| May 2003 | April 2004 | Road extraction and Updating from Remote Sensing Image | RMTO |
| Apr.2003 | May 2003 | Mobile Mapping System for Roads | RMTO |
| Jun. 2002 | May 2002 | Online Vehicle Tracking system For Monitoring Commercial Fleet (Truck&Bus) | RMTO |
| March 2002 | March 2003 | Roads Transport Atlas CD project, It contains all information on identification project of roads and side installations. It has many capabilities such as: shortest path, distance, measurement, map and report printing. | RMTO |
| March 2002 | Nov. 2002 | WEBGIS (Road Transport WEBGIS) project WWW.Iranroads.ir. | RMTO |
| Apr. 2000 | Dec. 2002 | Identification of Roads (75000 Km) and side Installations using GIS with GPS. It contains Comprehensive information on roads (scale: 1:250000) and general service facilities (50 layers including gas station, police, etc.) | RMTO |
| March 2000 | March 2001 | Updating of GIS for the city of Shiraz | Municipality of Shiraz city |
| July 1999 | Nov.1999 | GIS Project for the city of Tehran. | Tavan Company Ltd. |
| Apr.1997 | Dec. 997 | Surveying Project," Producing 1/200 topographic map" | Tehran Municipality |
| May1996 | Feb. 1999 | Founder and Editor-in-chief of Geomatic Student Magazine | K.N.Toosi Univ. "Rahavard Sabz Magazine", |

**Awards and Honors:**
- Brain Korea 21 (BK21) Scholarship Award (2008) from Korean Government.
- Korean government Graduate Scholarship Award (2005-2007) for PhD course [Korean Research Foundation (KRF)], South Korea.
- Distinguished Researcher (3rd Rank) of the Year (2003) at the Ministry of Roads & Transportation, Tehran, Iran.
- Nationally Distinguished Researcher of the Year (2003), Iran.
- Graduate Scholarship Award (2000) from the Ministry of Roads & Transportation (Road Maintenance and Transportation Organization), Tehran, Iran.

## Journal and Conference Reviews:

- JOURNAL OF SPATIAL SCIENCE
- INFORMATION SCIENCES JOURNAL
- IEEE CONFERENCE: 3rd INTERNATIONAL CONFERENCE ON INFORMATION & COMMUNICATION TECHNOLOGIES: FROM THEORY TO APPLICATION
- OnTheMove FEDERATED CONFERENCES & WORKSHOPS: THIRD INTERNATIONAL Workshop ON ONTOLOGIES IN DISTRIBUTED AND INTERACTIVE SYSTEMS

## Software Skills:

**GIS Software:** ArcIMS, ArcSDE, ARCObjects, ERDAS 8.3, ARCGIS 8.3, Programming with MapObjects & MOIMS, Programming with Avenue, Arc Info 3.5.1, EASI/PACE, MicroStation, ILWIS, AutoCadMap, CARIS, ArcView GIS, Oracle.
**Web Programming:** HTML, ASP, XML, JAVA Script, VB Script, Visual Basic, Delphi.

## Teaching Experiences:

During my Post Doctoral Fellowships and Lecture Position, I taught various classes related to GIS and IT in Geoinformatic Eng. Dept. of Inha University.

I supervised many Master and PhD students directly and indirectly during my eleven years research in various universities. Long time experiences in several government and private sectors as well as performing research and teaching in academic areas, makes me capable to perform a considerable contribution to postgraduate research student supervision.

## Teaching Areas:

### Graduate level:
- Advanced Spatial Analysis
- Seminar in Geoinformatic Eng.
  - (Internet GIS, Mobile GIS, Ubiquitous GIS, Semantic Web, …)

### Undergraduate level:
- GIS Programming
- Data Structures
- Web Programming
- Intelligent Transportation Systems (ITS)

## Publications:

### Book and chapter book:
- Book:
  - **Sadeghi-Niaraki, A.,** Ontology-based and Personalized Spatial Modelling in GIS (Basics, Concepts, Method), VDM - The Publisher, Saarbrücken, Germany, in press, 2009.
- Chapter book:

- Soft Computing as Transdisciplinary Science and Technology (IEEE), R. Chbeir, Y. Badr, A. Abraham, D. Laurent and F. Ferri, Paris, France, ACM Press, ISBN 978-1-60558-046-3, **Sadeghi-Niaraki, A.,** K. Kim, Ch. Lee (2008), pp. 613-619.

## Journals:

- **Sadeghi-Niaraki, A.,** K. Kim (2009), "Ontology based personalized route planning system using a multi-criteria decision making approach", Journal of Expert Systems with Applications, USA, Volume 36, Issue 2, Part 1, pp. 2250-2259, doi:10.1016 /j.eswa.2007.12.053

- Jelokhani-Niaraki, M.R., A.A. Alesheikh, A. Alimohammadi, **A. Sadeghi-Niaraki,** (2009). "Designing Road Maintenance data Model Using Dynamic Segmentation Technique". Springer-Verlag Lecture Notes in Computer Science (LNCS) Series, In Press, Corrected Proof.

- **Sadeghi-Niaraki, A.,** K. Kim, Ch. Lee (2009). "Driving Toward an Ontological Route Planning Solution", Journal of Korean Spatial Information system Society, South Korea.

- **Sadeghi-Niaraki, A.,** K. Kim, M. Varshosaz, (2008). "Design and Development of Impedance Function for Optimum Path Finding using Multi Criteria Decision Making Technique, Journal of National Cartography Center, Vol. 18, No. 91, pp. 10-18.

- Abbasi, A., **A. Sadeghi-Niaraki**, B. Mirzaeian-Dehkordi (2008). "A Review of ICT Status and Development Strategy Plan in Iran". International Journal of Education and Development using ICT, Vol. 4, No, 3.

- **Sadeghi-Niaraki, A.,** K. Kim, H. Torfehnejad (2006). "Design and implementation of a GIS-based accident management system using tracking technique, Journal of Korean Spatial Information system Society, South Korea.

## Referred Conferences:

- **Sadeghi-Niaraki, A.,** K. Kim, Ch. Lee (2008). "Ontology Driven Road Network Analysis based on Analytical Network Process Technique", IEEE CSTST2008, IEEE International Conference on Soft Computing as Transdisciplinary Science and Technology, Paris, France, pp. 613-619.

- **Sadeghi-Niaraki, A.,** K. Kim, Ch. Lee (2008). "GIS-based Web-Service Architecture", National Spatial Data Infrastructure Conference 2008, Seoul, South Korea.

- **Sadeghi-Niaraki, A.,** K. Kim (2008). "GIS based Non-Point Source Pollution Assessment" International symposium on Remote Sensing 2008 (ISRS 2008), Daejeon, South Korea.

- **Sadeghi-Niaraki, A.,** K. Kim (2008). "Development of geospatially based personalized route finding architecture", MapAsia2008 Conference, Kuala Lumpur, Malaysia.

- **Sadeghi-Niaraki, A.,** K. Kim, (2008). "A Ontology ANP based Multi-Criteria Decision Making Approach" The 2008 International Conference on Information and Knowledge Engineering (IKE'08)), The 2008 World Congress in Computer Science, Computer Engineering, and Applied Computing (WORLDCOMP'08), Las Vegas, USA (Acceptance rate= 28%).

- **Sadeghi-Niaraki, A.,** K. Kim, (2008). "Driving Toward Ontology Web Services Driven Application" The 2008 International Conference on Semantic Web and Web Services (SWWS'08), The 2008 World Congress in Computer Science, Computer Engineering, and Applied Computing (WORLDCOMP'08), Las Vegas, USA (Acceptance rate= 27%).

- **Sadeghi-Niaraki, A.,** K. Kim (2007) "The Developing GIS Web Services for Locating Facilities", InterGeo East 2007 Conference, 28 February-2 March 2007, Bulgaria, Sofia. http://www.rgz.sr.gov.yu/DocF/Files/intergeo-east-2007/n27.pdf

- **Sadeghi-Niaraki, A.** (2006) "A Study Based on Moving from Spatial Data Infrastructure (SDI) toward Spatial Service Infrastructure (SSI)", GSDI-9 Conference Proceedings, 6-10 November 2006, Santiago, Chile. http://www.gsdi9.cl/english/abstracts/TS11.1abstract.pdf

- **Sadeghi-Niaraki, A.,** K. Kim, A. Shojaei (2006). "Linear Feature Extraction from Satellite Imagery using Discontinuity-Based Segmentation Algorithm" International conference of ISRS2006PORSEC, Busan, South Korea.

- **Sadeghi-Niaraki, A.,** K. Kim, Sangbong Yoo, Tao Song (2006). "Design and implementation of a prototype based on GIS web services" International conference of SMF/ UPIMap2006, Seoul, South Korea.

- **Sadeghi-Niaraki, A.,** M. Varshosaz, and H. Behrooz (2004). "Implementation of the resulting Cost Model of Roads Network in the Geographic Information System (GIS)" Proceedings of ISPRS 2004 Conference, Istanbul, Turkey.

- Torfehnejad, H., **A. Sadeghi-Niaraki**, and H. Behrooz (2004). "Offline Passenger Fleet Control in Iran interurban Road Network" Proceedings of 8th International Conference on Application of Advanced Technologies in Transportation Engineering (AATT2004), Beijing, China.

- **Sadeghi-Niaraki, A**., and J. Jamili (2004). "Defining the Cost Model for optimum path analysis in Iran Roads Transit Network with GIS software and EMME/2 transportation software" Proceedings of 8th International Conference on Application of Advanced Technologies in Transportation Engineering (AATT2004), China.

- Alesheikh, A.A, **A. Sadeghi-Niaraki**, M. Varshosaz and H. Helali (2002). "Satellite Location & Navigation of Vehicles on the International Transport Corridor of Iran, Russia and India" Proceedings of Geomatics (ISPRS) 2002. Ottawa, ON, Canada.

- Alesheikh, A.A, and **A. Sadeghi-Niaraki** (2001). "Monitoring and Tracking Fleet Vehicles on Silk Road." Proceedings of Digital Earth 2001. Fredericton, NB Canada.

## Conferences:

- **Sadeghi-Niaraki, A.,** Jae-Min Park, K. Kim, Ch. Lee (2007) "Grid Based Nonpoint Source Pollution Load Modelling", 2007 GISKorea Conference, 15 June, Seoul, Korea.

- **Sadeghi-Niaraki, A.,** K. Kim (2006). "The developing emergency route finding model in the road network" conference of ubiquitous disaster, GIS 2006, Korean Spatial Information system Society, Seoul, South Korea.

- **Sadeghi-Niaraki, A.,** K. Kim, Hamid Torfeh'nejad (2006). "BUS Monitoring System using a GIS and Electronic Booklet" GIS/RS conference, Seoul, South Korea.

- Varshosaz, M., and **A. Sadeghi-Niaraki** (2003). "Defining the Cost Model of Iran Roads Network in GIS" Proceedings of MapAsia 2003 Conference, Kuala Lumpur, Malaysia Oct. 13-15.

- **Sadeghi-Niaraki, A.,** and M. Varshosaz (2003). "Determination of a cost model for optimum Path route in Iran Roads network" Proceedings of Geoinformatics 2003 Conference, Toronto, Canada Jun 25-27.

- **Sadeghi-Niaraki, A.,** H. Behrooz and H. Torfehnejad (2003). "Offline Passenger Fleet Control in Iran interurban Road Network" Proceedings of Geoinformatics 2003 Conference, Toronto, Canada Jun 25-27.

- Varshosaz, M., and **A. Sadeghi-Niaraki** (2003). "Obtaining the Cost Model of Iran Roads Network in GIS" Proceedings of Geomatics 82 Conference, Tehran, Iran May 11-15.

- **Sadeghi-Niaraki, Abolghasem,** and M. Varshosaz (2001). "Tracking and control vehicles in GIS with using GPS and communication" Proceedings of satellite based positioning systems 80 (SBPS 80) Conference, Science and Technology Univ., Tehran, Iran Oct 21-22.

- **Sadeghi-Niaraki, Abolghasem** (1998). "Considering GPS Technology AND GLONASS" Rahavard-Sabz (Geomatics Students) Magazine, K.N.Toosi Univ. of Technology, Tehran, Iran.