

Dr. SUHAIL A. ALMADANI

Assistant Professor, Civil & Environmental Engineering Department, King Abdulaziz University.

Education

<i>Degree</i>	<i>Discipline</i>	<i>Institution</i>	<i>Year</i>
PhD	Civil Engineering	Purdue University, U.S.A	1991
MS	Civil Engineering	Purdue University, U.S.A	1985
BS	Civil Engineering	King AbdulAziz University, Jeddah, KSA	1982

Academic Experience

<i>From</i>	<i>To</i>	<i>Institution</i>	<i>Rank</i>	<i>Title (Chair, Coordinator, etc.)</i>	<i>Full or Part Time</i>
1992	Date	King Abdulaziz Univ.	Assist Prof.	Assistant Prof.	Full Time
1985	1991	Purdue University	Scholarship	Graduate Student	Full Time
1982	1985	King Abdulaziz Univ.	Teaching Assist.	Teaching Assistant	Full Time

Non Academic Experience

<i>From</i>	<i>To</i>	<i>Company/Entity</i>	<i>Title</i>	<i>Position description (Brief)</i>
2016	2017	Al-Ain Al-Aziziyah Endowment	Consultant	GIS/Remote Sensing
2014	2015	Jeddah Municipality	Consultant	GIS/Surveying/Mapping
2001	2013	Jeddah Municipality	Consultant	GIS/Surveying/Mapping
1999	2000	Jeddah Municipality	Consultant	Surveying and Mapping
1997	1998	Presidency of Meteorology and Environmental PME	Consultant	Remote Sensing/GIS
1995	1996	Water Research Center	Researcher	Board Member Secretary
1993	1996	Ain Zubaida Rebuilding Project	Researcher	Surveying and Mapping

Certifications and Professional Registrations

1. American Society for Photogrammetry and Remote Sensing (ASPRS)
2. American Congress on Surveying and Mapping (ACSM)

Current Membership in Professional Organizations

<i>Member Since</i>	<i>Rank</i>	<i>Society/organization</i>
1985	Member	American Society for Photogrammetry and Remote Sensing, U.S.A.
1990	Member	American Congress on Surveying and Mapping, U.S.A.
1995 – Present	Member	Saudi Society for Civil Engineers, (SSCE), KSA
1995 – Present	Member	Saudi Council OF Engineers, Saudi Arabia (SCE)

Honors and Awards

1. B. Sc. Degree with first honor
2. M. Sc. Degree with first honor

Service activities (within and outside of the institution)

At Ain Zubaida Research Project

1. Researcher for all three phases of Ain Zubeida Research Project headed by university president.
 - a. Planning and executing horizontal and vertical control points
 - b. Topographic and detail survey.
 - c. Underground survey in the underground water channels.
 - d. Mapping underground water channels and water wells and registering them to satellite Imagery and to Makkah local coordinate system.
 - e. Building a digital base map in a GIS system.
 - f. Developing an application program for automatically describing the boundary lines of land properties.

At Presidency of Meteorology and Environmental (PME)

1. Supervisor and Rapporteur for GIS and Remote Sensing in the president office and the department of GIS/RS.
2. Member of specifications committee setting specifications to 20 projects.
3. Member of compensation committee for the second Gulf war as a GIS consultant.
4. Member of the steering committee in PME for the first Islamic conference for the ministers of environment held in Jeddah 2002. The tasks included are: preparing program of work of the Conference, active involvement in conference activities and program of visits for heads of delegations.
5. Evaluating the former and current GIS projects in PME.
6. Strengthening the relations and mutual cooperation between PME and other government agencies.
7. Setting plans for establishing a national environmental GIS data base, and Setting specifications for PME main GIS project. This includes specifications for a complete computer network, GIS base map and applications, value engineering, mapping from satellite imageries, updating of base map and applications.

8. Delivering a technical paper in the workshop on the role of pastoralists in the protection of pastures in 2002.
9. Writing several reports in a multitude of environmental issues:
 - a. Evaluating ways to improve the performance for the department of GIS/RS.
 - b. Applications and specifications for Advanced Very High Resolution Radiometers.
 - c. Evaluating PME National GIS/RS project.
 - d. Evaluating NASA Earth Observing System.
 - e. Evaluating coastal area monitoring in the Arabian Gulf area using radar imageries.
 - f. Monitoring oil spills and ships traffic.
 - g. Avenues of cooperation between PME and the Saudi Geological Survey, Ministry of Defence, and King Abdulaziz City for Science and Technology.
 - h. Evaluating the suitability of ARGOS satellite system for environmental measurements and monitoring.

At Jeddah Municipality

1. Director of Surveying department
2. Director of Surveying Development department
3. Director of Land Reclamation department
4. Director of Istehkamat department
5. Deputy of Mayor Assistant of Lands and ownerships – for technical affairs
6. Members of several committees: Land ownership; Registration of grants subdivisions; Delineation of flood areas; and a number of temporary committees to study transaction files
7. Writing RFP for the following projects and supervising their execution :
 - 1) Evaluation of ground control points network in Jeddah
 - 2) Establishment of second and third order control points in Jeddah province
 - 3) Establishment of Continuously operating reference stations CORS Network enabling GPS survey by VRS method (six CORS stations)
 - 4) Maintenance, operation, and expansion of JM CORS network (3 more stations)
 - 5) Studying and scrutinizing of expropriation transactions files and map sheets for properties overlapping with regulation lines
 - 6) Processing and map registration of transaction files for overlapping property boundaries
 - 7) Determining Geoidal surface by gravimetric survey and establishing vertical control points
 - 8) Developing base map and GIS system and applications for each department of the general directorate of lands and surveying. These departments are: Property Registration dept., Istihkamat dept., Land Issues dept., Expropriation dept., Surveying dept., Land Reclamation dept.
 - 9) Legal consultation project to support the departments of Istehkamat and Land Issues
 - 10) Developing land registry for Jeddah Municipality
8. Preparing and publishing surveying guides, manuals and specifications for GPS survey, plat (Kroki) preparation, land deeds (sakk) understanding, geodetic datum, map projection, and coordinate system.
9. Converting hundreds of paper subdivision maps and old aerial survey maps into digital raster and vector maps and registering them in JM base map.
10. Preparing maps for streams, canals, and dams of more than seven of the main valleys in Jeddah province.
11. Successful reclaiming of over 70 million square meters of lands held by land aggressors.
12. Holding and supervising the fourth forum for the directors of surveying departments in municipalities.
13. Studying and preparing detailed reports about surveying, mapping, and GIS activities in Provincial Municipal Agency and all the eleven municipalities under the administration of Jeddah Municipality (JM). The study includes running projects, communication and computer networks, technical staff, and file transactions between municipalities and JM.
14. Evaluating several running or proposed projects such as: GIS development project; Maintenance of digital base maps; Naming and numbering of Jeddah streets; linear base map production; Issuing excavation permits by GIS; Strategic partnership with specialized companies.

15. Doing several assessments and studies for JM such as: Establishing JM Urban Observatory; JM computer network; STC communication network in Jeddah, SCECO electricity network in Jeddah; Sewerage network in Jeddah; Public water network in Jeddah.

Establishing Consulting Office within King Abdulaziz University (2018- Current)

- The office name is “**Dr. Suhail Almadani Office for Geographic and Surveying Information Systems**”.
- The consulting office signed three contracts with the legendary **Al-Ain Al-Aziziyah Endowment**:
 1. Developing specifications for surveying monuments and landmarks to delineate land properties of Alain Alaziziyah Land Endowments.
 2. Studying and evaluating situations of paper, raster maps, papers and files archives, computer systems and application programs, communication networks. There was no GIS system available.
 3. Preparing RFP with specifications and bill of quantities for establishing a comprehensive GIS system that includes a complete base maps, new computer and communication networks, Complete scanning and electronic archiving of all transaction files, converting paper maps into digital raster and vector maps and registering them into the GIS base map, automation of transactions, and developing GIS applications.

Principal Publications/Presentations from the Past Five Years

1. **Suhail Al Madani**, Balqies Sadoun, and Omar Al Bayari. 2016. Continuously operating reference station and surveying applications in KSA. *Int. J. Commun. Syst.* 2016; 29:1046–1056. Published online 6 August 2015 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/dac.3035.
2. Ashraf E. Mousa, Ahmed I. Elhattab and **Suhail A. Elmadani**. Sept 2013. Jeddah CORS/ VRS: Design, Establishment and Testing. *Port-Said Engineering Research Journal*. Vol 17, No 2, 95-104.

Recent Professional Development Activities

1. Founder and owner of an expertise house offering engineering consultation in the fields of Photogrammetry, Remote Sensing, Geographic Information System, Surveying and Mapping.
2. Developing Video lectures in the field of Remote Sensing and GIS Integration.