

Rami Al-Ruzouq

Associate Professor
Geomatics Engineering

Tel: 00971-562697970

ralruzouq@sharjah.ac.ae
alruzouq@gmail.com

Bibliography



Rami Al-Ruzouq is an Associate Professor of Geomatics Engineering in the Department of Civil and Environmental Engineering and Coordinator of the Sustainable Civil Infrastructure Systems (SCIS) Research Group at the University of Sharjah. He received his BSc (1993) and MSc (1996) in Civil Engineering from the Jordan University of science and technology, Jordan. He also received MSc in Geodetic science (2002) from Ohio State University, USA, and PhD (2004) in Geomatics Engineering from the University of Calgary, Canada. He served in a number of professional, academic and administration positions in the USA, Canada, Jordan, and the UAE. He served as vice dean of scientific research at Al-Balqa' Applied University, Jordan. He is a member of many local and internationally scientific societies (American Society of Photogrammetry and remote sensing (ASPRS), Mapping Sciences Institute, Australia, Jordan Engineers Association and the Institution of Geospatial and Remote Sensing Malaysia. His research interests include: Geographic information system (GIS) and remote sensing for Hazard mapping and environmental modeling, spatio-temporal analysis for urban growth and transportation planning, photogrammetry and 3D-Modelling for construction and archeological documentation, underground water mapping and assessment.

Education

- **Ph.D.** in Geomatics Engineering, University of Calgary, Department of Geomatics Engineering , Canada, 2004,
- **M.Sc.** in Geodetic Science, Ohio State University, Department of Civil, Environmental, and Geodetic Engineering , USA, 2002,
- **M.Sc.** in Civil Engineering, University of Science and Technology, Department of Civil Engineering Jordan, 1996,

Academic Appointments

<i>Sept 2012 – Present</i>	Associate Professor, Department of Civil Engineering and Environmental Engineering, University of Sharjah, Sharjah, UAE.
Sept 2010 – Sept 2012	Associate Professor, Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Jordan.
Sept 2004 – Sept 2010	Assistant Professor Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Jordan.
Sept 2002 – June 2004	Graduate Research and teaching Associate. Department of Geomatics Engineering, University of Calgary, Calgary, Canada.
Sept 2000 – June 2002	Graduate Research and Teaching Associate. Department of Civil and Environmental Engineering and Geodetic Science, The Ohio State University, Columbus, Ohio, USA.
Sept 1999 – Sept 2000	Faculty Member, Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Al-Salt, Jordan.
Oct 1997 – Aug 1999	Consultant Engineer, Doany Consulting Engineers, Amman, Jordan.
Sept 1996 – Sept 1997	Al-Faiha for Engineering Products Cormix, Amman, Jordan, Quality Control Engineer, Jordan.
Sept 1993 – Sept 1996	Teaching and Research Assistant. Department of Civil Engineering, Jordan University of Science and Technology, Jordan.

Administrative Appointments (Academic)

Administration Position	Name of University	Duration	
		From	To
Research Group Coordinator Sustainable Civil Infra-Structure Research Group	University of Sharjah, UAE	2015	Present
Program Coordinator M.Sc in GIS and Remote sensing	University of Sharjah, UAE	2016	Present
Vice Dean Vice Dean for Graduate Studies and Scientific Research	Al-Balqa Applied University, Jordan	2008	2010

Professional Appointments

Position	Organization	Location/ Country	Duration of Experience	
			From	To
Consultant	Consultant Engineer Doany Consulting Engineers	Amman Jordan	1998	2000
Quality Control Engineer	Al-Faiha for Engineering Products Cormix,	Amman Jordan	1996	1998

Professional Registration

Society	Country
American Society of civil Engineering (ASCE)	USA
American Society of Photogrammetry and remote sensing(ASPRS)	USA
International Society for Photogrammetry and Remote Sensing	USA
Jordan Engineers Association	Jordan
Mapping Sciences Institute	Australia
The Institution of Geospatial & Remote Sensing Malaysia (IGRSM)	Malaysia

Research Areas

- GIS and remote sensing for Integrated Water Resources and Digital Mapping of groundwater potential zones.
- Coastal management and decision making supported by multi-dimensional geospatial information.
- Hazard and risk for management using GIS Remote Sensing and image processing.
- Spatio-temporal Analysis and Image Registration for Studying Growth Patterns of Transportation Infrastructure.
- Deployment of Non-Destructive Technologies in Condition Assessment of Concrete Bridge Infrastructure.
- Decision Support System for Condition Assessment of Transportation Infrastructure in the UAE
- Orthophoto and digital elevation models based on aerial and satellite images
- Automatic registration of multi-source imagery with varying geometric and radiometric properties.
- Archaeological Documentation of historical sites based on close range Photogrammetry
- Integration between geophysics, Photogrammetry and GIS for archaeological documentation
- Photogrammetry/GIS integration for change detection applications.
- Automatic co-registration and parameter estimation.
- Linear features in photogrammetric operations.
- Feature extraction and object recognition.

Publications

Book Chapters

1. Shanableh A., **Al-Ruzouq R.**, Al-Khayyat G. (2019) Assessing the Spatial and Temporal Capacity of a Semi-Enclosed Gulf to Absorb and Release CO₂ Using GIS and Remote Sensing. In: Pradhan B. (eds) GCEC 2017. GCEC 2017. Lecture Notes in Civil Engineering, vol 9. Springer, Singapore
2. **Al-Ruzouq R.**, Hamad K., Shanableh A. (2017) Spatiotemporal Analysis and Image Registration for Studying Growth of Transportation Infrastructure in Sharjah City, UAE. In: Pirasteh S., Li J. (eds) Global Changes and Natural Disaster Management: Geoinformation Technologies. Springer, Cham
3. **Rami AL-Ruzouq** (2012). Photogrammetry for Archaeological Documentation and Cultural Heritage Conservation, Special Applications of Photogrammetry, Dr. Daniel Carneiro Da Silva (Ed.), ISBN: 978-953-51-0548-0, InTech, Available from: [http://www.intechopen.com/books/special-applications-of-photogrammetry/“Photogrammetry for Archaeological Documentation and Cultural Heritage Conservation”](http://www.intechopen.com/books/special-applications-of-photogrammetry/Photogrammetry-for-Archaeological-Documentation-and-Cultural-Heritage-Conservation).

International Journals

4. Al-Ruzouq, R., Shanableh, A., Gibril, B. A., & AL-Mansoori, S. (2018). Image Segmentation Parameter Selection and Ant Colony Optimization for Date Palm Tree Detection and Mapping from Very-High-Spatial-Resolution Aerial Imagery. *Remote Sensing*, 10(9), 1413.
5. Al-Ruzouq, R., Venkatachalam, S., Abueladas, A., & Dabous, S. A. (2018). Geomatics for economic archaeological documentation and management. *Applied Geomatics*, 1-20. <https://doi.org/10.1007/s12518-018-0227-1>
6. Omar, M., Shanableh, A., Mughieda, O., Arab, M., Zeiada, W., & Al-Ruzouq, R. (2018). Advanced mathematical models and their comparison to predict compaction properties of fine-grained soils from various physical properties. *Soils and Foundations*. <https://doi.org/10.1016/j.sandf.2018.08.004>
7. Al-Ruzouq, R., Shanableh, A., Omar, M., & Al-Khayyat, G. (2018). Macro and micro geospatial environment consideration for landfill site selection in Sharjah, United Arab Emirates. *Environmental monitoring and assessment*, 190(3), 147.
8. Shanableh, A., Al-Ruzouq, R., Yilmaz, A. G., Siddique, M., Merabtene, T., & Imteaz, M. A. (2018). Effects of Land Cover Change on Urban Floods and Rainwater Harvesting: A Case Study in Sharjah, UAE. *Water*, 10(5), 631.
9. Al-Ruzouq, Rami, and Saleh Abu Dabous, 2017. "Archaeological Site Information Modelling and Management Based on Close-Range Photogrammetry and GIS." *Conservation and Management of Archaeological Sites* 19.3 (2017): 156-172.
10. Al-Ruzouq, Rami, Khaled Hamad, Abdallah Shanableh, and Mohamad Khalil, 2017. "Infrastructure growth assessment of urban areas based on multi-temporal satellite images and linear features." *Annals of GIS* (2017): 1-19.
11. Abueladas, Abd El-Rahman, Emad Akawwi, Rami Al-Ruzouq, and Abdallah Alzoubi, 2017. "Using 2D and 3D CVES in Archaeology at Umm Qais, Jordan." *Journal of Applied Sciences* 17 (2017): 41-47.

12. Abu Dabous, S. , Hamad, K. , Al-Ruzouq, R, 2016. "Defect-Based Urgency Index for Bridge Maintenance Ranking and Prioritization". World Academy of Science, Engineering and Technology, International Science Index 113, International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering (2016), 10(5), 582 - 586.
13. Rami Al-Ruzouq, Khaled Hamad and Abdallah Shanableh, 2015. Spatio-temporal Analysis and Image Registration for Studying Growth Patterns of Transportation Infrastructure in Sharjah City, UAE. Title of the book "Geo-information Technologies and Earth Observation Systems for Global Changes and Natural Disaster Management", Springer. Accepted.
14. Al-Ruzouq, R. & Shanableh, A, 2014. Multi-Temporal Satellite Imagery for Urban Expansion Assessment at Sharjah City/UAE. Malaysian Journal of Remote Sensing & GIS. (3 ,2, 76-83).
15. **Al-Ruzouq**, R. & Al Rawashdeh, S. 2014. Geomatics for Rehabilitation of Mining Area in Mahis, Jordan. *Journal of Geographic Information System*. (6, 123-134).
16. **Rami Al-Ruzouq** and Abd Rahman abudas, 2013 ."Geomatics Techniques and Ground Penetration Radar for Archeologically Documentation of Al-Salt Castle in Jordan", Journal of Applied Geomatics, Springer. December 2013, Volume 5, Issue 4, pp 255-269.
17. Samih Al Rawashdeh, **Rami Ruzouq**, A'kif Al-Fugara, Biswajeet Pradhan, S. H. Abu-Hamatteh Ziad, Abu Rumman Ghayda, 2013. "Monitoring of Dead Sea water surface variation using multi-temporal satellite data and GIS" . Arabian Journal of Geosciences. September 2013, Volume 6, Issue 9, pp 3241-3248
18. Samih Al Rawashdeh, **Rami Al-Ruzouq**, and Khaldoun Qtaishat, 2013. "The use of geomatic techniques to monitor environmental deformation". Internat. J. of Sci. and Eng., Vol. 4(2)2013:92-96, April 2013.
19. **Rami Al-Ruzouq** , Sameeh Al-Rawashdeh , Omar Tommaliehc and Mohammed Ammar, 2012. "Photogrammetry and GIS for Three Dimensional Modeling of the Dome of the Rock" Journal of Applied Geomatics, Springer. December 2012, Volume 4, Issue 4, pages 257-267.
20. **Rami Al-Ruzouq** and Ayman Habib, 2012 . "Linear Features for Automatic Registration and Reliable Change Detection of Multi-Source Imagery". Journal of Spatial Science, Taylor & Francis, Volume 57, Issue 1, 2012 ,pages 51-64.
21. **Rami Al-Ruzouq**, Abdullah ALZoubi , Abdrahman Abueladas and Emad Akawwi, 2012 . "Multiple source imagery and linear features for detection of urban expansion in Aqaba City, Jordan". International Journal of Remote Sensing, Taylor & Francis, Volume 33, Issue 8, 2012, pages 2563-2581.
22. **Rami Al-Ruzouq** and Shatha Kadhim, 2012. "Close Range Photogrammetry and Neural Network for Facial Recognition". American Journal of Applied Sciences 9 (10): 1542-1552, 2012.
23. **Rami Al-Ruzouq**, 2010. 'Data fusion of multi-source imagery based on linear features registration', International Journal of Remote Sensing, Taylor & Francis, Volume 31, Issue 19, 2010, pages 5011-5021.
24. Gideon Tibor, Tina M. Niemi, Abdallah Al-Zoubi, Ronnie A. Sade, John K. Hall, Gal Hartman, Emad Akawi, Abdelrahmem Abueladas and **Rami Al-Ruzouq**, 2010. "Active

- tectonic morphology and submarine deformation of the northern Gulf of Aqaba from analyses of multibeam". Geo-Marine Letters, Volume 30, Number 6, pages 561-573.
25. **Rami Al-Ruzouq**, Abdallah Al-Zoubi (2007). Archaeology and GIS in Jordan, Geo-IT in Reconstruction of Baptism Area. Geomatics International Journal. Vol. 21, Issue, 1, pages 23-25.
 26. Abdallah Al-Zoubi, Abd-El-Rahaman Abueladas, **Rami Al-Ruzouq**, Christian Camerlynck, M Ezarsky, Wasim Ali, Samih rawashdeh, 2007. "Use of 2D Multi Electrodes Resistively Imagining for sinkholes Hazard Assessment along the eastern Part of the Dead Sea, American Journal of Environmental Science, ,2007- 3 (4): pages 229 -233
 27. Abdalla M. Odeh, , Wa'il Abu-El-Sha'r and **Rami Al-Ruzouq**, 2006. Gas Transport Through Concrete Slabs, Building and Environment, Elsevier, 41, 2006, pages 492-500.
 28. Habib, A., and **R. Al-Ruzouq**, 2005, Semi-Automatic Registration of Multi-Source Imagery with Varying Geometric and Radiometric Properties, Journal of. Photogrammetric Engineering and Remote Sensing Vol. 71, No. 3, March 2005, pages 325–332.
 29. Habib, A., M. Ghanma, M. Morgan, and **Rami Al-Ruzouq**, 2005. "Photogrammetric and LIDAR Data Registration Using Linear Features", Photogrammetric Engineering and Remote Sensing, Vol. 71, No. 6, June 2005, pages 699–707. Habib, A., and **Rami Al-Ruzouq**, 2004. "Line-Based Modified Iterated Hough Transform For Automatic Registration of Multi-Source Imagery", Journal The Photogrammetric Record , 19(105): pages 5–21.

International Conferences

1. **Al-Ruzouq, R.**, Shanableh, A., Boharoon, Z., and Khalil, M.: Calibrated Multi-Temporal Edge Images for City Infrastructure Growth Assessment and Prediction, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-3/W4, 37-44, <https://doi.org/10.5194/isprs-archives-XLII-3-W4-37-2018>, 2018.
2. Al-Dogom, D., Schuckma, K., and **Al-Ruzouq, R.**: Geostatistical Seismic Analysis and Hazard Assessment; United Arab Emirates, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-3/W4, 29-36, <https://doi.org/10.5194/isprs-archives-XLII-3-W4-29-2018>, 2018.
3. Shanableh, A., Abdallah, M., **Al-Ruzouq, R.**, Merabtene, T., Siddique, M., Yilmaz, A., ... & Salim, G. (2018). Greywater reuse policies and practice in the city of Sharjah, United Arab Emirates. In *10th International Conference on Water Sensitive Urban Design: Creating water sensitive communities (WSUD 2018 & Hydropolis 2018)* (p. 321). Engineers Australia.
4. Hamad, K., **Al-Ruzouq, R.**, Zeiada, W., Dabous, S. A., & Khalil, M. A. (2018). Predicting Incident Duration Using Random Forests (No. 18-03090).
5. Shanableh, Abdallah, **Rami Al-Ruzouq**, Mohsin Siddique, Tarek Merabtene, Abdullah Yilmaz, and Monzur Imteaz. "Impact of urban expansion on potential flooding, storage and water harvesting in the city of Sharjah, United Arab Emirates." In *MATEC Web of Conferences*, vol. 120, p. 09007. EDP Sciences, 2017.
6. Khalil, Mohamad Ali, **Rami Al-Ruzouq**, Khaled Hamad, and Abdallah Shanableh. "Multi-Temporal satellite imagery for infrastructure growth assessment of Dubai City, UAE." In *MATEC Web of Conferences*, vol. 120, p. 09006. EDP Sciences, 2017.

7. **Al-Ruzouq, Rami.** (2017). "Polygon-based Technique for Image Fusion and Land Cover Monitoring; Case Study World Islands/UAE". Conference: 3rd International *Conference on Geographical Information Systems Theory, Applications and Management*. 256-261. 10.5220/0006354702560261.
8. **Rami Al-Ruzouq,** Khaled Hamad and Abdallah Shanableh, 2015. Spatio-temporal Analysis and Image Registration for Studying Growth Patterns of Transportation Infrastructure in Sharjah City, UAE. *The 5th International Conference on Earth Observation for Global Changes (EOGC 2015) and the 7th International Conference on Geo-information Technologies for Natural Disaster Management (GiT4NDM 2015)*. December 8-10, 2015, Al-Ain, UAE University, UAE.
9. Mohsin Siddique, Tarek Merabtene, Abdallah Shanableh and **Rami Al Ruzouq,** (2015), Numerical study on bottom shear stress under breaking waves, , *5th International conference on estuaries and coast*, to be held on 2-4 Nov 2015 in, Musqat, Oman.
10. **AL-Ruzouq, R.,**Shanableh and A., Merabtene, T. Geomatics for mapping of groundwater potential zones in northern part of the United Arab Emirates-Sharjah City. 2015 36th International Symposium on Remote Sensing of Environment; Berlin; Germany; 11 May 2015 through 15 May 2015; *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences -ISPRS Archives* Volume 40, Issue 7W3, 28 April 2015, Pages 581-586. Scopus.
11. Mohsin Siddique, Tarek Merabtene, Abdallah Shanableh, **Rami Al Ruzouq,** (2015). Impact of Climate Change on Long Term Rainfall Trend in UAE and Future Challenges: A Case Study of Sharjah Airport Data. *3rd Int. Conf. on GlobalWarming: Food Security* held on 5-7 May, 2015 in Ras Al Khaimah, UAE.
12. **R. Al-Ruzouq** and A. Shanableh, 2014. "Multi-Temporal Satellite Imagery for Urban Expansion Assessment at Sharjah City/UAE". 7th IGRSM International Conference and Exhibition on Remote Sensing & GIS (IGRSM 2014). (21-22) April 2014, Kuala Lumpur-Malaysia.
13. Shanableh and **R. Al-Ruzouq,** 2014. Integration of Multi-Temporal Satellite Imagery in Modeling Urban Expansion Effects on Runoff in the City of Sharjah, United Arab Emirates. Symposium 2014 Hosted by Hydrology & Water Resources Perth, (24 – 27) February 2014, Western Australia pp 223-230.
14. **Rami Al-Ruzouq** and Khaled Hamad, 2015. "Teaching Geographical Information Systems (GIS) in Civil Engineering Curricula". 7th International Forum on Engineering Education Jointly with 3rd towards Sustainable Development Conference, 17-19 March 2015, University of Sharjah, United Arab Emirates.
15. Khaled Hamad, Maher Omar, Waleed Zeiada, **Rami Al-Ruzouq,** and Rulla Raad, 2015. "Sustainable Public Transportation Potential at Sharjah University City, 2015". 7th International Forum on Engineering Education Jointly with 3rd towards Sustainable Development Conference, 17-19 March 2015, University of Sharjah, United Arab Emirates.
16. Samer Barakat, Salah Altoubat, Mohamed Maalej , Tarek Merabtene and **Rami Al-Ruzouq,** 2015. "Program Assessment -National Standards (QFEMIRATES) VS. International Standards (ABET) -The Master Of Science In Civil Engineering (MSCE) Program At The University Of Sharjah As Case Study". 7th International Forum on Engineering Education Jointly with 3rd towards Sustainable Development Conference, 17-19 March 2015, University of Sharjah, United Arab Emirates.

17. **Rami Al-Ruzouq**, Abdullah ALZoubi , Abdrahman Abueladas and Emad Akawwi, 2011 . “Hazard Mapping Along the Dead Sea Shoreline”. Commission 4 – Hydrography, Bridging the Gap between Cultures, FIG Congress, Marrakech, Morocco, 18-22 May 2011.
18. **Rami Al-Ruzouq**, 2011 . “Photogrammetry and GIS For Three Dimensional Modeling of Aqaba Fort, Jordan”. Geomatics Technologies in the City, First International Geomatics Symposium in Saudi Arabia , Jeddah 10-13 May 2011
19. **Rami Al-Ruzouq**, Abdallah Al-Zoubi, Abdel-Rahman Abueladas and Petya Dimitrova 2010 . “Photogrammetry and GIS Integration for Archaeological Documentation of Ahl-Alkafh, Jordan”. Proceedings of World Academy of Science, Engineering and Technology, v 66, p 155-159.
20. Emad Akawwi, Abdallah Al-Zoubi, **Rami Al-Ruzouq**, M. Kakish, Abdalrahman Abueladas, 2010. “A Geomatics Applications for Determination the Rock Deformation, and Drainage Pattern for the Na’ur Area along Na’ur – Dead Sea Road” , International Conference on Geography and Geology 2010, Corfu Island, Greece.51-56, ISSN: 1792-4294.
21. Shatha K . Jawad, **Rami AL-Ruzouq**, Sireen Hiary, Sali Issa, Alaa Garageer , 2009“ A Design of Facial Recognition System Using Neural Network Based Geometrics 3D Facial”. International Conference Of Signal Processing , Pattern Recognition, And Applications, Austria.23-28.
22. Wust-Bloch, G. H. Al-Zoubi, A. Ben-Avraham, Z. **Al-Ruzouq**, R. Abueladas, A. Joswig, M. 2007.” Pre-collapse sinkhole hazard assessment by integrated nanoseismic monitoring and GIS techniques along the Dead Sea shores in Jordan” Geological Society. 2007, pages 134
23. **Rami Al-Ruzouq** and Petya Dimitrova , 2006 . “Photogrammetric Techniques for Cadastral Map Renewal”. TS 90 – GIS and Land Administration, Shaping the Change, XXIII FIG Congress, Munich, Germany, October 8-13, 2006.
24. **Rami Al-Ruzouq**, Abdallah Al-Zoubi Abdel-Rahman Abueladas and Samih Al-Rawshdeh, 2006. “Photogrammetry, GIS and Geophysics Integration for Archaeological Documentation of the Baptism area” Esri International user conference SanDiego , USA 2006.
25. Habib, A., Mwafag G **Rami Al-Ruzouq**, and E. M. Kim 2004. 3-D Modelling of Historical Sites using Low-Cost Digital Cameras. XXth Congress of ISPRS, 12-23 July, 2004.
26. **Rami Al-Ruzouq**, 2004. “Comprehensive Paradigm for Semi-Automatic Registration of Multi-Source Imagery”. XXth Congress of ISPRS, 12-23 July, 2004.
27. Habib, A., **Rami Al-Ruzouq**, 2004, and C. J. Kim. Semi-Automatic Registration and Change Detection using Multi-Source Imagery with Varying Geometric and Radiometric Properties. XXth Congress of ISPRS, 12-23 July, 2004
28. **Al-Ruzouq, R.**, R. Ma, T. Ali, K-C. Cheng, C-Y. Kuo, S. O’neil, X. Xu, K. Di, R. Li, K.W. Bedford, C.K. Shum, J.R. Ramirez, And A. Zhang 2002. Demonstration: Digitalization Of Coastal Management And Decision Making. Proceedings Of National Conference on Digital Government Research, Los Angeles, USA, 2002.

Research Projects

- Using GIS and Remote sensing for potential water zone map in Sharjah.
- Integration of Geomatics and Geophysics for Geo-Special Archeology Database System in Jordan(2008 - 2010), Funded by the Hashemite Kingdom of Jordan , Ministry of Higher Education and Scientific Research (Principle Investigator).
- Integrated Water Resources Management in the Lower Jordan Valley (SMART II), Joint project (2010-2012), Funded from BMBF, Germany.
- High Resolution Geophysical Imaging of Active Faults in the Aqaba-Elat Region- Leg 2: Marine Coring and Onshore Correlations (2009-2011), Funded from MERC/USAID, USA.
- Sinkhole Hazard Assessment of the Dead Sea Area, a multidisciplinary study (2009-2012). Funded from MERC/USAID, USA.
- Integrated Water Resources Management Helmholtz Dead Sea; Sustainable Management of water Resources (quantity and quality) in the Dead Sea Area (SUMAR), 2008-2012. Funded from BMBF, Germany.
- Integrated Water Resources Management in the Lower Jordan Valley (SMART), Joint project (2006-2011), Funded from BMBF, Germany.
- High Resolution Geophysical Imaging of Active Faults in the Aqaba-Elat Region (2006-2009), Funded from MERC/USAID, USA.
- Sinkhole hazard monitoring along the Dead Sea Shores, an example, Jordan (2005-2007), Funded from Rotshield foundation.
- Geophysical Investigation in the North-Eastern Part of the Dead Sea (Sweimeh Area)/ 2005-2006. Funded from Karlsruhe University, Germany.

Professional Experience Details

Sept 2012 – present	Associate Professor Department of civil and Environmental engineering Sharjah University, UAE.
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Duties include:

Conducting Research in GIS and Remote that include

- Multi-Temporal Satellite Imagery for Urban Expansion Assessment at Sharjah City /UAE.
- Integration of Multi-Temporal Satellite Imagery in Modeling Urban Expansion Effects on Runoff in the City of Sharjah, United Arab Emirates
- Potential water zone mapping.

Teaching the following courses:

- Geographic Information Systems(GIS)
- Photogrammetry and remote sensing. Special topics in civil Engineering
- Surveying
- Numerical Methods
- Statics

Conducting **scientific research**, advising undergraduate and graduate students:

Sept 2010 – Sept 2012	Researcher , Department of civil engineering and Architecture, University of Bahrain , Manama
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Duties include:

Conducting Research in GIS Remote sensing water zone map

Committee member for Master of Geomatics program

Committee member for geographic information center

Teaching the following courses:

- Surveying
- Geographic Information Systems(GIS)
- Statics
- Theory of Structure

Conducting **scientific research**, advising undergraduate and graduate students:

Nov 2009 – Sept 2010	Associate Professor, Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Jordan.
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Duties include:

Teaching the following courses:

- Analytical and digital Photogrammetry
- Close Range Photogrammetry
- Geographic Information Systems(GIS)
- Observation Adjustment
- Digital Terrain modeling
- Digital Image Processing
- Remote Sensing
- Surveying

Conducting **scientific research**, advising undergraduate and graduate students:

- Data fusion for multi-source imagery: case study of the Amman city,
- GIS system for Al-salt city,
- 3D-docomintation for archeological and historical sites,
- Accuracy analysis for land maps registration in Amman city.

Sept 2007 – present

Vice Dean Of Scientific Research, Al-Balqa' Applied University, Al-Salt, Jordan

Responsibilities include research development, administration, and external relations creating an environment in which excellence in research enhances the mission of the Al-Balqa Applied University. Specific responsibilities include:

- Responsible for creating an environment in which excellence in research enhances the mission of the university.
- Facilitate the research agenda of the university focusing on knowledge generation and practice relevant research.
- Develop and implement formal guidance and support mechanisms to assist faculty with their individual program of research. Develop and coordinate resources to facilitate scholarly achievement of faculty and students.
- Maintain own program of research as evidenced by publications and research grants.
- Develop and manage the research operating budget. Develop and maintain continuous quality improvement program for the research component within the university. Assure compliance with university regulations and policies related to the conduct of scientific inquiry.
- Assure the management of the administrative and fiscal responsibilities for university research infrastructure.

Sept 2004 – present

Assistant Professor, Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Jordan.

Duties include:

Teaching the following courses:

- Analytical and digital Photogrammetry
- Close Range Photogrammetry
- Geographic Information Systems(GIS)
- Observation Adjustment
- Digital Terrain modeling
- Digital Image Processing
- Remote Sensing

- Surveying

Conducting **scientific research**, advising undergraduate and graduate students:

- Data fusion for multi-source imagery: case study of the Amman city,
- GIS system for Al-salt city,
- 3D-docomintation for archeological and historical sites,
- Accuracy analysis for land maps registration in Amman city.

Sept 2002 – June 2004	Graduate Research and teaching Associate , Department of Geomatics Engineering, University of Calgary, Calgary, Canada
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Duties include:

- Teaching Assistant for Remote sensing course
- Conducting scientific research in Automatic Registration of Multi-Source Imagery with Varying Geometric and Radiometric Properties.

Sept 2000 – June 2002	Graduate Research and Teaching Associate , Department of Civil and Environmental Engineering and Geodetic Science, The Ohio State University, Columbus, Ohio.
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Duties included:

- Teaching Assistant for Spatial Data Analysis course, which included the following main topics: Measurement theory, analysis of measurements, computations and adjustment of spatial data, in a computer-oriented geomantic environment.
- Conducting scientific research in Planning Project: Digital Government, Digitization of Costal Management and Decision Making Supported by Multi-Dimensional *Geospatial Information and Analysis*. I have been involved in research activities in the mapping and GIS lab on Internet based spatial data inventory and development of an experiment system for Digital Government Project management of the available data using dynamic segmentation techniques. Master shoreline for the study area in Lake Erie was constructed by extracting and merging the shorelines from DLG files. The master shoreline is represented as a route in Arc/Info and ArcView; a table represents each data set and the table is attached to the route. By doing so, the metadata cab be efficiently organized and visualized along the master shoreline. Early demonstration version of an ArcView project for management of the available data was established. After extracting and merging the shorelines from DLG files, all collected data (DLG, DOQ, DEM, Water Level, and aerial Orthophoto, LIADER, DEM from Orthophoto, tide gauges and Lake Erie bathymetry) were graphically represented along the shoreline in the study area. Each data type is attached with table, which contains source, name, accuracy, access, extent, resolution, web access and others that related to a certain area. These data are available in one view and can be accessed and retrieved easily by any of the project members.

Sept 1999 – Sept 2000	Faculty Member , Department of Surveying and Geomatics Engineering, Faculty of Engineering, Al-Balqa' Applied University, Al-Salt, Jordan
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Duties included teaching the following courses:

- Engineering Drawing (AutoCAD).
- Mechanics of Materials.
- Engineering Mechanics/ Statics.
- Fundamentals of Surveying.

Oct 1997 – Aug 1999	Consultant Project Engineer , Atalla Doany Consulting Engineers, Amman, Jordan
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Duties included the following:

- Program manager, responded to all design clarification requests, schedule and manning issues. Perform QA and review program-testing results.
- Supervised, inspected, monitored and coordinated all contractors work to assure compliance with drawing and technical specification.
- Prepared required detailed drawings and as-built drawings.
- Performed Quality Control responsible for technical design reviews, generated drawing and technical specifications for various concrete and steel structures.

Sept 1996 – Sept 1997	Quality Control Engineer , Al-Faiha for Engineering Products Cormix, Amman, Jordan.
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Duties included:

- Field and laboratory testing of materials as required for quality control procedures. Main responsibilities include dealing with concrete admixtures, mortar additives, grouting materials, repair compounds and other specialty materials regarding purpose of use, method of use, addition rates, side effect and others.

Sept 1993 – Sept 1996	Teaching and Research Assistant , Department of Civil Engineering, Jordan University of Science and Technology, Jordan.
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Duties included teaching the labs for the following courses:

- Material science, steel design, strength of materials, and structural analysis. Performed research in different areas mainly; concrete admixtures, expert system and gas transport Modeling through concrete.

Awards

Prof. Ayman Habib and **Dr. Rami Al-Ruzouq** have received the "Best Poster Award" at the XX International ISPRS Congress held in Istanbul, Turkey 12-23 July 2004 for their paper entitled "Automatic Registration and Change Detection of Multi-Source Imagery with Varying Geometric and Radiometric Properties".