# Jacqueleen Joubran Abu Daoud

AAUP- American Arab University - Palestine
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***Dr. Joubran Abu Daoud*** is a civil engineer who received her B.A in buildings construction, transportation and geodesy, M.Sc. in Mapping and Geo-Information Engineering - and PhD in Mapping and Geo-Information Engineering (focusing on GIS), all at the Faculty of Civil and Environment Engineering, Technion – IIT by full scholarship. Her research dealt with computerized cartographic mapping (especially on automated cartographic generalization). Lately she dealt with GIS analysis to evaluating and modeling engineering phenomena. She has published her work in leading international journals and peer-reviewed international conferences. Dr. Joubran Abu Daoud was for 6 years a researcher and an adjunct lecturer at the Faculty of Civil and Environment Engineering, at the Faculty of Architecture and Town Planning, as well as at the interdepartmental master program on Real-Estate Studies, Technion–IIT. She also has practical experience in web mapping services using GIS databases and maps quarries for websites and services based location.

Currently, she is working as assistant professor in AAUP since September 2015, she is the head of Geographic Information Systems department in Engineering & Information Technology Faculty in AAUP.

She interests in GIS Domains, programming and application. also in Digital Cartography, Spatial data mining using Mathlab and R Programming Languge and ArcGIS, Geometric Networks and data sets and 3D Modelling for virtual reality and 3D analysis (Solar radiation, Visibility, and geometric geo processing).

## ACADEMIC DEGREES

1998, Bachelor of Science in Civil Engineering

1998, Bachelor of Science in Geodetic Engineering

2001, Master of Science in Geodetic Engineering

2010, Doctor of philosophy (Mapping and Geo-Information Engineering)

## ACADEMIC APPOINTMENTS

1997-2001, Teaching Assistant in the Technion

2002-2009, Teaching Instructor in the Technion

2009-2015, Adjunct Lecture in the Technion

2015- today, Assistant Professor in the AAUP

2016-2018, 2019-2020, GIS Department Chair

## RESEARCH INTERESTS

- GPS and Surveying
- Geographic Information Systems
- Digital Cartography
- Generalization
- 3D Modelling, Visualization and analysis
- Geometric Networks and Datasets
- Geo-Statistics and Spatial Data Mining

Softwares and Programming Languages

- ArcGIS, Surffer, AutoCAD, SketchUp, Erdas, QGIS, GRASS
- C++, Mathlab, Python, R for Statistics

## Teaching Courses

Introduction to GIS
Intermediate GIS
Advance GIS
GPS and Surveying
Introduction to Remote Sensing
GIS data analysis
Geodata base
Geo statistics and spatial data mining
Digital Cartography
Transportation by GIS
Special topics in GIS
GIS analysis for real estate managements
WEB and Online GIS

**PUBLICATIONS**

## Theses

2000, MSc Research (Geodetic Engineering): "Research of Applications of 2D Hulls for Cartographic Purposes"

2009, PhD Dissertation (Mapping and Geo-Information Engineering): "A Mutual Combined Generalization of Spatial Data in GIS Environment"

## Refereed papers in professional journals

1. Joubran Abu Daoud J., Doytsher Y., 2014, **"An Advanced Geospatial Analysis Model of Real Estate Assets Based on a Neural Network Approach"**, Digital South-Eastern European Journal of Earth Observation and Geomatics, Volume 3, Number 1.

2. Joubran Abu Daoud J., Doytsher Y., 2012, ***"Geospatial Analysis Model of Real Estate and Land Management"***, Digital South-Eastern European Journal of Earth Observation and Geomatics, June Special Issue on "Land and Information Management in South-Eastern Europe", 1(2s):61-74.

3. Joubran, A.J., Doytsher, Y., ***"Ring Analysis as a Data Mining Theory for Determining Cartographic Density"*** (to be submitted shortly)

## Fully Refereed Publications

1. Joubran, A.J., Doytsher, Y., 2010. ***"Pseudo-Physical Approach for Automated Urban Maps Generalization"***, COM.Geo 2010, 1st International Conference on Computing for Geospatial Research & Applications, Washington DC, USA.
2. Joubran, A.J., Karsznia, I., 2012. ***"Comparison between Generalization Processes at Large and Small Scales"***, the 4th International

Conference on Advanced Geographic Information Systems, Applications, and Services, GEOProcessing 2012, Valencia, Spain, ISBN: 978-1-61208-178-6, pp. 105-110.

3. Ellul, C., Joubran, A.J., 2012. "***Preliminary investigations into the potential of improving rendering performance of 3D datasets using 2D generalization***" . Usage, Usability, and Utility of 3D City Models–European COST Action TU0801 ..

***4.*** Joubran, A.J., Doytsher, Y., 2015. ***"*** **Variable Scale Mapping for Mobile Devices with Limited Screen Sizes*"*** submitted at September 2015.

## Papers in Conference Proceedings (with Referees)

5. Joubran, J., Gabay, Y., 2000. ***"A Method of Construction of 2D Hull for Generalized Cartographic Representation"***, Proceedings of 19th Congress of ISPRS, Amsterdam, Netherlands, pp. 417-424.

6. Joubran, A.J., Doytsher, Y., 2004. ***"A Combined Automated Generalization Model of Spatial Active Objects"***, Proceedings of 20th Congress of ISPRS, Commission IV, WG IV/3, Istanbul, Turkey.

7. Joubran, A.J., Doytsher, Y., 2005. ***"A Combined Automated Generalization Model Based on the Relative Forces between Spatial Objects"***, Proceedings of the XXII International Cartographic Conference, A Coruña, Spain.

8. Joubran A.J., Doytsher Y., 2007. ***"A Pseudo-Physical Model for a Holistic Automated Cartographic Generalization"***, 2007 Israeli Conference on Geodesy, Mapping and Geographic Information, Tel-Aviv, Israel

9. Joubran, A.J., Doytsher, Y., 2008. ***"An Automated Cartographic Generalization Process: A Pseudo-Physical Model"***, Proceedings of 21st Congress of the ISPRS, Commission II, WG II/3, Beijing, China.

10. Joubran A.J., Doytsher Y., 2009. ***"A Neural Network Based Approach toward Automated Real-Time Cartographic Generalization"***, 2009 Annual Conference of the American Society of Photogrammetry and Remote Sensing (ASPRS), Baltimore, Maryland, USA

11. Joubran, A.J., Doytsher, Y., 2009. ***"Near Real Time Automated Generalization for Mobile Devices"***, FIGWW'2009 Conference, Eilat, Israel.

12. Joubran, A.J., 2011. ***"GIS Environment for Urban Design"***, Israeli Geographical Association Conference, December, 25 – 26, 2011, Tel-Aviv University, Tel-Aviv.

13. Joubran, A.J., Shach P.D., 2011. ***"The use of Geo-Design Methodology for Urban Design studies"***, Israeli Geographical Association Conference, December, 25 – 26, 2011, Tel-Aviv University, Tel-Aviv.

14. Joubran, A.J., Jabareen, Y., 2011. ***"Conceptualizing and Assessment of Urban Vulnerability Using GIS"***, Israeli Geographical Association Conference, December, 25 – 26, 2011, Tel-Aviv University, Tel-Aviv.

## INVITED TALKS

- July 2011, the Department of Civil, Environmental and Geomatic Engineering, University College London, London, UK. ***"*Automated Cartographic Generalization - based on a Neural Network Method and a Pseudo Physical Model*"***

- July 2011, the Communications and Information Systems Group, Department of Electronic & Electrical Engineering, University College London, London UK. ***"*Near Real Time Automated Generalization for Mobile Devices*"***

## CONTRIBUTED TALKS IN SYMPOSIA

1. 2000, The XIX Congress of the International Society for Photogrammetry and Remote Sensing on "Geoinformation for All", Amsterdam, Netherlands.
   Presentation title: ***"A Method of Construction of 2D Hull for Generalized Cartographic Representation"***

2. 2004, The XX Congress of the International Society for Photogrammetry and Remote Sensing on "Geo-Imagery Bridging Continents", Istanbul, Turkey.
   Presentation title: ***"A Combined Automated Generalization Model of Spatial Active Objects"***
3. 2005, XXII International Cartographic Conference on "Mapping Approaches into a Changing World", A Coruña, Spain.
   Presentation title: ***"A Combined Automated Generalization Model Based on the Relative Forces between Spatial Objects"***
4. 2007, the Israeli Annual Conference on Geodesy, Mapping and Geographic Information, Tel-Aviv, Israel.
   Presentation title: ***"A Pseudo-Physical Model for a Holistic Automated Cartographic Generalization"***
5. 2008, The XXI Congress of the International Society for Photogrammetry and Remote Sensing on "Silk Road for Information from Imagery", Beijing, China.
   Presentation title: ***"An Automated Cartographic Generalization Process: A Pseudo-Physical Model"***
6. 2009, FIGWW'2009 Conference of the International Federation of Surveyors, Eilat, Israel.
   Presentation title: ***"Near Real Time Automated Generalization for Mobile Devices"***