

BIOGRAPHICAL SKETCH

NAME Tarek Rashed	AFFILIATION Polis Center, Director of Geoinformatics
PORJECT ROLE Principle Investigator	School of Liberal Arts, IUPUI 1200 Waterway Blvd, Suite 126, Indianapolis, IN, 46202

EDUCATION

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
University of Assiut, Egypt	BS	05/1993	Architecture Engineering
University of Manchester, UK	MS	09/1998	Computation
University of Geneva, Switzerland	Graduate Diploma	09/2000	Disaster Management
San Diego State University/University of California Santa Barbara, Joint Doctoral Program in Geography	PhD	05/2003	GIS/Remote Sensing, Natural Hazards

A. PERSONAL STATEMENT

I am a Geospatial Information Technologies Research Scientist with over 24 years of experience in GIS and spatial decision making and their applications. I published and presented extensively; accomplishments include a text book in remote sensing; several refereed papers in leading GIS and remote sensing journals and chapters and lead authorship of prominent GIS and remote sensing books; and manuals and technical reports presented domestically and internationally. I am an experienced leader and manager having variously served as Business Development Consultant, Technical Advisor, Associate Director, Director, and President at academic, non-for-profit, and private business organizations. I led basic and applied research projects including NSF funded research, as well as governmental contracts in the USA, UK, Croatia, Singapore, Egypt, Ghana, Jordan, Kuwait, Saudi Arabia, Oman, Emirates, Qatar, and Afghanistan. I am an award-winner of numerous national and international awards including the prestigious Gilbert White Award for the best hazards dissertation from the Association of American Geographers, Young Scholar Award from the Consortium of Geographic Information Science, and a GIS Award from the Urban and Regional Information Systems Association.

B. POSITIONS AND HONORS

Positions and Employment

1994-1995	GIS Specialist, Information and Decision Support Center, Egypt
1995-1997	Senior GIS Specialist, Quality Standards, Egypt
1997-1997	GIS Consultant and Trainer, United Nations Environmental Programme, Accra, Ghana
1998-2003	Research Associate, San Diego State University, San Diego, CA
2002-2003	Visiting Assistant Professor, MSGIS Program, University of Redlands, Redlands, CA
2002-2003	GIS Consultant, Redlands Institute, University of Redlands, Redlands, CA
2003-2009	Assistant Professor, Department of Geography, University of Oklahoma, Norman, OK
2003-2009	Associate Director, Centre for Spatial Analysis, University of Oklahoma, Norman, OK
2005-2006	Remote Sensing Expert, United Nations Development Programme, Afghanistan Country Office
2005-2006	Web GIS Consultant, Oklahoma Department of Wildlife Conservation, Oklahoma City, OK
2008-2009	Senior GIS & Business Development Consultant, ESRI Northeast Africa, Cairo, Egypt
2009-2010	Senior Scientist, Milcord LLC, Waltham, MA
2010-2015	Chief Scientist and President, Geospatial Applied Research Experts House (GSAREH), Austin, TX
2010-2013	GIS Consultant, Health Division of the World Bank, Washington, D.C.
2011-2015	Part-Time Lecturer, Spatial Science Institute, University of Southern California, Los Angeles, CA
2015	Adjunct Faculty, New Mexico State University; Austin Community College
2016-	Director of Geoinformatics, Polis Center, IUPUI

SYNERGISTIC ACTIVITIES

1993-	Member, Association of Egyptian Engineers
1998-	Member, Association of American Geographers (AAG)
1998-2002	Member, Urban and Regional Information Systems Association (URISA)
1999-	Member, American Society for Photogrammetry and Remote Sensing (ASPRS)
2000-	Member, Sigma-Xi Scientific Research Society

2000-2003	Member, Phi-Beta-Delta International Scholars Society, SDSU
2001-2003	Member, Academic Council of United Nations System (ACUNS)
2004	NSF Panelist, Information Technology Research (ITR)
2005	NSF Panelist, Science and Engineering Information Integration and Informatics (SEIII)
2005-2008	NSF External Reviewer
2005-2009	Elected Member, Board of Directors, ASPRS Central Region
2005-2009	Elected Chair, Young Scholar Committee, University Consortium of Geographic Information Science (UCGIS)
2005-2011	Member, International Symposium on Remote Sensing of Urban Areas
2006	Oklahoma State Delegate at the National States of Geographic Information Council Meeting
2006-	Founding Member of the Urban Remote Sensing specialty group, European Association of Remote Sensing Laboratories (EARSeL)
2007-2009	Secretary, University Consortium of Geographic Information Science (UCGIS)
2007	NSF Panelist, Global Scientists & Engineers Programs, Decision, Risk and Management Sciences (DRMS)
2007-2009	Panelist, Qatar National Science Foundation
2008-2010	Member, Scientific Committee of GeoTunis
2009-2011	Member, Editorial Board of Professional Geographer

HONORS

1997	Chevening Scholarship, British Council, Cairo, Egypt
1999	Human Geography Award, Department of Geography, SDSU
1999	GIS Award, Urban and Regional Information Systems Association, Southern California Chapter
2000	McFarland Award, Department of Geography, SDSU
2000	First Place Award, Phi Beta Delta Scholarship Competition, SDSU
2001	Second Place Award, Student Paper Competition. Remote Sensing Specialty Group, Association of American Geographers (AAG)
2002	Second Place Award, Student Paper Competition. GIS Specialty Group, Association of American Geographers (AAG)
2004	Gilbert White Award for the best hazards dissertation, Hazards Specialty Group, Association of American Geographers (AAG)
2004	Young Scholar Award, University Consortium of Geographic Information Science (UCGIS)
2007	Honorary and Appreciation Award, College of Engineering, University of Mansoura, Egypt

C. SELECTED PEER-REVIEWED PUBLICATIONS

1. Weeks, J., Gadalla, M., **Rashed, T.**, Stanforth, J. and Hill, A., 2000. Spatial Variability in Fertility in Menoufia, Egypt, Assessed Through the Application of Remote-Sensing and GIS Technologies. *Environment and Planning A*, 32(4): 695-714.
2. **Rashed, T.**, Weeks, J., Gadalla, M. and Hill, A., 2001. Revealing the Anatomy of Cities through Spectral Mixture Analysis of Multispectral Satellite Imagery: A Case Study of the Greater Cairo Region, Egypt. *Geocarto International*, 16 (4):5-16.
3. **Rashed, T.**, Weeks, J., Roberts, D., Rogan, J., and Powell, R. 2003. Measuring the Physical Compositions of Urban Morphology using Multiple Endmember Spectral Mixture Models. *Photogrammetric Engineering & Remote Sensing*, 69 (9):1011-1020.
4. **Rashed, T.** and Weeks, J., 2003. Assessing Vulnerability to Earthquake Hazards through Spatial Multicriteria Analysis of Urban Areas. *International Journal of Geographic Information Science*, 17(6):549-576.
5. **Rashed, T.** and Weeks, J., 2003. Exploring the Spatial Association Between Measures from Satellite Imagery and Patterns of Urban Vulnerability to Earthquake Hazards. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Vol XXXIV-7/W9:144-152.
6. Weeks, J., A. Getis, A. Hill, M. Gadalla and **T. Rashed** 2004. The Fertility Transition in Egypt: Intra-Urban Patterns in Cairo. *Annals of the Association of American Geographers* 94: 74-93.
7. **Rashed, T.** 2004. Quantifying the Ecological Patterns of Urban Densification through Multiple Endmember Spectral Mixture Analysis, Landscape Metrics, and Fuzzy Logic. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Vol XXXV-B7:503-508
8. **Rashed, T.**, J. Weeks, D. Stow, and D. Fugate 2005. Measuring Temporal Compositions of Urban Morphology through Spectral Mixture Analysis: Toward a Soft Approach to Change Analysis in Crowded Cities. *International Journal of Remote Sensing*, 26 (4):699-718.

9. **Rashed, T.**, 2005. Geospatial Technologies, Vulnerability Assessment, and Sustainable Hazards Mitigation in Cities. In M. Campagna, editor, GIS for Sustainable Development: Bringing Geographic Information Science into Practice towards Sustainability, Taylor and Francis (CRC Press), New York: 287:309.
10. James, A. M.** and **T. Rashed** 2006. In Their Own Words: Utilizing Weblogs in Quick Response Research. In G. Guibert (editor) Learning from Catastrophe: Quick Response Research in the Wake of Hurricane Katrina, Natural Hazards Center Press, University of Colorado, Boulder: 57-84.
11. **Rashed, T.**, J. Weeks, H. Couclelis, and M. Herold 2007. An Integrative GIS and Remote Sensing Model for Place-Based Urban Vulnerability Analysis. In V. Mesev (editor), Integration of GIS and Remote Sensing, Wiley (chapter 9): 199-231
12. **Rashed, T.**, 2008. Remote Sensing of Within-Class Changes in Urban Neighborhood Structures. Computer, Environment and Urban Systems 32 (5): 343-354
13. **Rashed, T.** and Juergens, C. (editors) 2010. Remote Sensing of Urban and Suburban Areas. Series: Remote Sensing and Digital Image Processing, Vol. 10. Series Ed.: Meer, Freek D. van der. Springer
14. VoPham, T.; Wilson, J.; Ruddell, D.; **Rashed, T.**; Brooks, Maria M.; Yuan, J.; Talbott, E.; Chang, C.; Weissfeld, J. 2015. Linking pesticides and human health: A geographic information system (GIS) and Landsat remote sensing method to estimate agricultural pesticide exposure. Applied Geography 62 (2015): 171-1.
15. Rahman, M. T; **T. Rashed** 2015. Urban Tree Damage Estimation Using Airborne Laser Scanner Data and Geographic Information Systems: An example of 2007 Oklahoma ice storm. Urban Forestry & Urban Greening 14 (2015) 562–572

D. RESEARCH SUPPORT

IDHS (ongoing) Multihazard Mitigation Planning in Indiana

US Army Corp of Engineers (ongoing) Indiana Flood Mitigation Planning Platform

South Carolina Emergency Management Division (ongoing) SCEMD Multi Hazard Mitigation Planning Platform

Microsoft (2016) Supply Change Management Platform for Rainforest Alliances

Ministry Of Environment and Water (United Arab Emirates) (2015) Implementation Roadmap for GIS

GSAREH (2012-2015) R&D Project on Integrated Flood Risk Management System

(2013-2015) R&D Project on Geospatial Intelligence Technology Bundle

Madina Development Authority (Saudi Arabia)

(2014-2015) GIS Business Process Modeling

(2013-2014) Spatial Data Infrastructure Project

(2013-2015) Planning Support System for the Medina Development Agency

Singapore Land Authority (2012) SG-Space Standards Familiarization

USDTA (2012) Smart Transportation in China

World Bank (2011-2013) Integrated Emergency Medical Services for Croatia

(2011-2013) Country Wide Health Business Intelligence System for Croatia

NCI (2010) Cancer Geographic Awareness in the USA

DoD (2009-2010) Predictive Indicators of Social Radicalism in Afghanistan

Qatar Dept. of Interior (2009-2010) Unified Geospatial Infrastructure for Qatar Ministry of Interior

Oklahoma Department of Wildlife Conservation (2007-2008) Design and Implementation of a Public Participatory Geospatial Web Portal for Reporting and Updating Fish Lake Records

USAID (2006) Geospatial Educational Alliance (GEA) for Afghanistan

NSF (2005-2006) SPACE Training, Geospatial Technologies for Undergraduate Curricula in Urban Social Studies

(1999-2002) Arab Fertility Project

(2001-2002) Doctoral Dissertation Improvement Grants

Oklahoma Department of Commerce (2006-2007) Oklahoma Capital Improvement Program (CIP) GIS Project

Oklahoma Department of Wildlife Conservation

(2005-2006) Oklahoma Fishery Digital Atlas

(2007-2008) Design and Implementation of a Public Participatory Geospatial Web Portal for Reporting and Updating Fish Lake Records

UNDP (2005-2006) Disaster Management Information System (DMIS) in Afghanistan

Intergraph (2004-2006) Virtual Luxor Project

FEMA (2002-2003) GIS Initiative Colorado River Basin Regional Water Quality Control Board Region 7 in California