

CURRICULUM VITA

PERSONAL INFORMATION

Family name Makhamreh
First name Zeyad
Date of Birth 25/08/1969
Marital status Married
Nationality Jordanian
Languages Arabic: Native
 English: Very good
 German: Very good
Gender Male



CONTACT ADDRESS

University of Jordan
Department of Geography
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SPECIALISATION AND CURRENT POSITION

Academic Rank
Full Professor in Geography

Specialization

PhD in Applied Environmental Science: Specialist in applied remote sensing and GIS in land, water and environments, particularly applications in environment monitoring and management, land suitability analysis, land degradation studies, and watershed management.

Current Position:
Head of Geography Department

Professor in the Department of Geography at the University of Jordan and having fourteen years' experience as a PhD holder in the field of Applied Environmental Sciences and Natural Resources Management. I have six years' experience as PhD researcher in Trier University-Germany; and seven years' experience as MSc holder in the University of Jordan Faculty of Agriculture and Ministry of Agriculture.

Administration Experience:

1. Head of Geography Department – Faculty of Arts – University of Jordan since Sept. 2019
2. Assistant Dean for student affairs of the Faculty of Arts - University of Jordan from Sept. 2011 to Sept. 2013.

EDUCATION

- Ph.D.** University of Trier - Faculty of Geosciences – Applied Environmental Science - Remote Sensing Department, Germany, 2006.
- M.Sc.** University of Jordan - Faculty of Agriculture - Department of Land, Water and Environment, Jordan, 1996.
- B.Sc.** University of Jordan - Faculty of Agriculture - Department of Soil and Irrigation Jordan, 1992.

ACADEMIC EXPERIENCE

- Since 2019** Full professor at Geography Department, University of Jordan: The main tasks are teaching and research activities.
- 2012-2018** Associate professor at Geography Department, University of Jordan: The main tasks are teaching and research activities.
- 2006 – 2011** Assistant professor at Geography Department, University of Jordan: The main tasks are teaching and research activities.
- 2001 – 2005** Researcher in the Remote Sensing Department at Trier University, Germany: The research activities focused on analysis, modeling of remote sensing, and geospatial data to assess and monitor land use change, soil erosion and land degradation processes and their impact in Mediterranean environments (Northern Jordan as a case study).
- 1999 – 2000** Researcher in the national centre for agricultural research and technology transfer (NCARTT). Department of Water Management and Environment, Ministry of Agriculture, Jordan. The research focused on analysis and developing on sustainable land use water resources management plans in Jordan.
- 1996 – 1998** Research associate in Department of Land, Water and Environment, University of Jordan. Research centered on the, potential land use, suitability analysis and sustainable land resources in Jordan.
- 1994 – 1996** Graduate research assistant, in the Soil Science and Irrigation Department, University of Jordan. Research centered on survey, analysis and management of natural resources in Jordan.

PROJECTS and FELLOWSHIPS

Fellowships:

- 2018** **KAAD 2018:** Building Nations, Sustaining Peace, and Diversity: International Conference organized for the 60th Jubilee of the Katholischer Akademischer Ausländer-Dienst (KAAD) in Tagaytay city **Philippian** November 2018.
- 2018** **JCRS 2018:** Jena Center for Reconciliation Studies 2018: “Reconciliation in the Middle East, an Interdisciplinary Research: Conference held by Jena University - **Germany** August 2018.
- 2017** **EPF 2017:** ERASMUS Plus Fellowship 2017: Fellowship for Teaching Staff Exchange in second semester 2017 by Erlangen University – **Germany**.
- 2016** **HPF 2016:** Hermes Program Fellowship 2016 as Post-Graduate Scholarship within the Hermes Program funded from the European Union. Assessment the

Environmental Impact of Urban Expansion in Amman Governorate using GIS and Remote Sensing: Department of Civil Engineer – hosted by Professor G. Ciraolo Palermo University - **Italy**.

- 2010** 15th Jordan science week: Science and Technology: Drivers of Change. **Analysis the environmental and social effect of the Urbanization process, Climate Change, and technology development in Jordan using GIS.** (Oral presentation): May 10-12, Amman-**Jordan**.
- 2009** Post-Graduate Scholarship Program: **Analysis of the Environmental and Socio-economic Impact of Land Use Changes in Jordan Using GIS and Remote Sensing techniques:** In corporation with Professor J. Hill – Department of Geoscience at Trier University – **Germany**.
- 2008** **DAAD 2008:** Post-Graduate summer Program - **Cultural and Educational Challenges of Higher Education in the Arab Countries in the Context of the Globalization Process.** Social, Cultural and Economic Aspects of Education in Conflict” online publications, 2008: DAAD alumni program at the Department of Education of the Heidelberg University, **Germany**
- 2007** **PGSP 2007:** Post-Graduate Scholarship Program funded from the British Academy: **The Environmental Impact of Agricultural Policy Changes on Land Use and Household in Jordan using GIS and Remote Sensing** under supervision of Professor Ray. Hudson – Department of Geography at Durham University - **England**.

PUBLICATIONS

Thesis:

PhD Thesis: Makhamreh, Z., 2005, Optical remote sensing and Geo-spatial analysis for assessing and monitoring of land degradation in the northern Jordan. Remote Sensing Department, University of Trier, Germany. (Published Ph.D. Thesis).

M.Sc. Thesis: Makhamreh, Z., 1996, Optimal land use alternatives for arid and semi-arid areas in Jordan. Soil and Water Department, University of Jordan, Jordan. (M.Sc. Thesis).

Books or Chapters

Makhamreh, Z., 2017, Climate Change and Green Economy (Book Chapter – in **Arabic**) in Man and Environment Series: Intellectual, Social and Economic Approaches: Edited and Coordinated by Chougrani El Houcine and Abdul Rahim Khalis. The center for Arabiv Union Studies. Beirut – first edition pp 255. **www.caus.org.lb**

Makhamreh, Z., 2014, Urbanization, Climate Change and the Environment (Book Chapter) in Arab Human Development in the Twenty-first Century: The Primacy of Empowerment. Edited by Bahgat Korany. **The American Univetsity in Cairo press.** Cairo – first edition pp 394.

Makhamreh, Z., 2010, Alternatives Regional Water Management for Conflict Resoultion in the Middle East: Case Study of Jordan (Book Chapter) in **Water and Culture in the Eastern Mediterranean,** Edited by Gail Holst-Warhaft, Tammo Steenhuis and Keith Porter.

Journals:

- Maher J Tadros, Amani Al-Assaf, Yahia Othman, **Zeyad Makhamreh**, and Hatem Taifoure, 2020. Evaluating the Effect of Prosopis Juliflora, an Alien Invasive Species, on Land Cover Change Using Remote Sensing Approach. *Sustainability* 12 (5887): DOI: [10.3390/su12155887](https://doi.org/10.3390/su12155887)
- Qurhan R., **Makhamreh, Z.**, and Z Rawadeh. 2021. The Role of Ecotourism in the Development of Local Community in Jordan: Dhana and Ajlun Natural Reservation""as a study models. (in Arabic will published in 2021 in **Journal of An-Najah National University Research**. Vol 35. No. 1)
- Makhamreh, Z.**, Al-Hawary, M., Odeh S., 2020. Assessment of Morphometric Characteristics of Wadi Al-Shumar Catchment in Jordan. **Open Journal of Geology**. Vol. 10 No. 2.
- Hdoush, A., and **Makhamreh, Z.**, 2019. Estimation of Water Consumption Requirements of Irrigated Crops in Mujib Basin. **International Journal of Environment and Water**. Vol 8, issue 4 pp: 102-111.
- Makhamreh, Z.**, 2019, Land degradation vulnerability assessment based on land use changes and FAO suitability analysis in Jordan. **Spanish Journal of soil science**. Vol. 9 issue 2 pp125-141.
- Makhamreh, Z.**, 2019, Monitoring Vegetation Characteristics and Degradation Risk in Jordan Using NDVI Time Series: (**Dirasat Journals: Human and Social Sciences: Vol 46, No. 3, pp 590-604**).
- Dar Mousa, R., and **Makhamreh, Z.**, 2019. Analysis of the pattern of energy consumptions and its impact on urban environmental sustainability in Jordan: Amman City as a case study. **Energy, Sustainability and Society**. <https://doi.org/10.1186/s13705-019-0197-0>
- Sakarneh, Z., **Makhamreh, Z** and **Al-Weshah R.**, 2019. Impact of Urban Expansion on Surface Runoff in Amman City using Geographic Information System: Case study Abdoun and Jubiha Catchments. (**Dirasat Journals: Human and Social Sciences: Vol 46, No. 1, Sup 2**).
- Makhamreh, Z.**, 2018, Derivation of vegetation density and land-use type pattern in mountain regions of Jordan using multi-seasonal SPOT images: . **Environmental Earth Sciences** 77: 384. <https://doi.org/10.1007/s12665-018-7534-z>).
- Khlaifat, A., Abu Taleb, H., **Makhamreh, Z.**, and Qtiashat, D, 2018, Analysis of the Urban Management Practices and Sustainable Development in the Local Municipalities in Jordan: Case Study - Salt City. **Modern Applied Science**; Vol. 12, No. 4.pp: 109-217.
- Qtiashat, D., **Makhamreh, Z.**, Abu Taleb, H, and Khlaifat, A, 2018, Urban Land Use Pattern and Road Network Characteristics Using GIS in Al Salt City, Jordan. **Modern Applied Science**; Vol. 12, No. 4. .pp: 128-142.
- Taran, A and **Makhamreh, Z.**, 2016. Quantitative Analysis of the Road Network in the Governorate of Mafraq. **Jordan Journal of Social Sciences**. Vol. 43 Issue 3, pp 2399-2417.
- Makhamreh, Z** and Al-Husban,Y., 2016. Analysis of the Geomorphological Characteristics of Badiat Al-Harra in Jordan using Digital Elevation Model and GIS. **Jordan Journal of Social Sciences**. Vol. 9 Issue 1, pp 43-57. 15.

- Al-Husban, Y., and **Makhamreh, Z.** 2015. Analysis of Morphometric Parameters of Wadi Araba Basin Using GIS and DEM. **International Journal of Applied Environmental Science**. Vol 10, No. 5. Pp 1811-1824.
- Al-Husban, Y. and **Makhamreh, Z.**, 2013. Trends in the Minimum Temperature and Number of Frost Events in the North-Eastern Badia of Jordan during the Period 1980–2010. **Arab World Geographer** 16(4):333-348.
- Almanaseya, N. and **Makhamreh, Z.**, 2012, Regional Land Use Patterns and Water Consumption in the Jordan Valley Using Geographic Information Systems. **Journal of Agricultural Science and Technology**, Vol. 2 No. 5A.
- Makhamreh, Z.**, and Almanasyeh, N., 2011, Analyzing the State and Pattern of Urban Growth and City Planning in Amman Using Satellite Images and GIS. **European Journal of Social Sciences**, issue 24: Vol 2.
- Makhamreh, Z.**, 2011, Using remote sensing approach and surface landscape conditions for optimization of watershed management in Mediterranean regions. **Physics and chemistry of the earth**, 36: 213-220.
- Bilbisi, H. and **Makhamreh, Z.**, 2010, A Comparison of pixel- based and object-based classification approaches in arid and semi-arid areas of Dead Sea region using Landsat imagery. *Dirasat* issue 37 no. 3.
- Makhamreh, Z.**, 2010, Monitoring the vegetation characteristics and dynamic as a response to climatic variability in the Eastern Mediterranean region of Jordan. International conference for climate change and food security in dryland regions, 1-4 february Amman, Jordan.
- Makhamreh, Z.**, 2006, Evaluation of soil quality and development stage using spectral reflectance of soils: Case study in Eastern Mediterranean region. (Presented at the „scientific workshop of AK BoGeo and Desert*Net: Soil and Desertification“. May 5-6, 2006, Hamburg, Germany).
- Makhamreh, Z.**, and Hill, J., 2005, Detection of sensitive areas for degradation risk by analyzing of seasonal vegetation density along climatic gradient (International Conference on Remote Sensing and Geoinformation Processing in the Assessment and Monitoring of Land Degradation and Desertification: state of the art and operational perspectives. September 7th to 9th, 2005, Trier, Germany).
- Udelhoven, T., Jarmer, T., Catlan, B., Al-Abed, M., Assad, N., **Makhamreh, Z.**, and Hill, J., 2005, Surface degradation and recovery indicators in the Eastern Mediterranean region derived from long-term monthly 1 km AVHRR/NDVI data (International Conference on Remote Sensing and Geoinformation Processing in the Assessment and Monitoring of Land Degradation and Desertification: state of the art and operational perspectives. September 7th to 9th, 2005, Trier, Germany).
- Makhamreh, Z.**, and Hill, J., 2005, Spectral mixture analysis for characterization of seasonal vegetation dynamics in northern Jordan. 1st Göttingen GIS & Remote Sensing Days, Environmental Studies, 7-8 October, 2004, Göttingen, Germany, (Göttinger Geographische Abhandlungen, Heft 113).

TAUGHT TOPICS

1. Natural Resources Management;
2. Environmental Risk Analysis;

3. Remote Sensing and Image Processing;
4. Land Degradation and Desertification;
5. GIS and Spatial Analysis

AREA OF SPECIALTY

1. Natural resource management;
2. Digital Image Processing;
3. Spatial Analysis using GIS;
4. Desertification assessment and monitoring;
5. Sustainable development; and
6. Land use analysis.

PROFESSIONAL ORGANIZATIONS

1. Member of the Scientific Community Board of the Jordan Environmental Society (JES): Amman Jordan. www.jes.org.jo (2010-2013)
2. Agricultural Engineering Associations, Amman Jordan. www.agrieng.org.jo (since 1992)
3. Member of the International Jurist Organization Board - UNDP India: www.ijo.org.in (2008-2012)
4. Member of the Jordan German Universities Community in Jordan (vJADU): Amman Jordan. www.jadu.org.jo (since 2014)
5. Member of the German Catholic Academic community in Jordan, since 2016

REVIEWERS FOR ACADEMIC JOURNALS

1. Arid Land Research and Management (Scopus Journal)
2. International Journal of Digital Earth (ISI Journal)
3. African Journal of Agricultural Research
4. Dirasat Journal (University of Jordan)
5. Jordan Journal of social sciences

COMPUTER SKILLS

1. Digital image processing (Imagine ERDAS and ENVI);
2. GIS analysis and modeling (ARCGIS and QGIS);
3. Statistical analysis (SPSS) ;
4. Standard computer programs (Microsoft, social media etc.).

REFEREES

1. Prof. Awni Yaqub Taimeh. Department of land, water and environment. Faculty of Agriculture, University of Jordan. Email: ataimeh@ju.edu.jo : Tel: 0096265355000 ext. 22445.
2. Prof. Joachem Hill. Department of Environmental Remote Sensing, Faculty of Geoscience, University of Trier, Germany. E-Mail: hillj@uni-trier.de . Tel 0049-651-201-4592, Fax: 00496512013815