

# Dimitrios Gounaridis

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## Education

### Main Education

2013 - 2018 **Ph.D.** Department of Geography. University of the Aegean.

Thesis title: “**Multi-scale modelling of land cover/land use (LCLU) change with Geoinformatics and scenario-based simulations**”. Supervisor: Assoc. Prof. S. Koukoulas.

2010 - 2012 **MSc** in Applied Geo-Informatics in Environmental and Risk Management. Department of Geography. University of the Aegean.

Dissertation title: “**Assessing fire severity and post-fire environmental recovery, employing methodologies of Geoinformatics**”. Supervisor: Prof. K. Kalampokidis

2004 - 2009 **BSc** in Forestry and Management of the Natural Environment. Eastern Macedonia and Thrace Institute of Technology (EMaTTech).

Dissertation title: “**Riparian and wetland ecosystems in Greece, definition and characteristics**”. Supervisor: Asst. Prof. G. Zaimes.

### Additional Training Courses

2013 **Transitions in Landscape and Land Use.** VOLANTE and the University of the Aegean PhD Summer School. Mytilene, Greece.

2011 **GISLERS Summer School:** Bridging Geographic Information Science, Landscape Ecology and Remote Sensing for landscape analysis and landscape planning. Z\_GIS Department of Geoinformatics, Salzburg, Austria

## Professional Experience

- **9/2018 – Present / Postdoctoral Research Fellow:** Urban Sustainability Research Group. School for Environment and Sustainability (SEAS). University of Michigan.
- **2/2013 – 5/2018 / PhD Researcher:** Spatial Analysis, Geographic Information Systems and Remote Sensing (SAGISRS) lab. Department of Geography. University of the Aegean
- **3/2017 – 8/2017 / fixed-term contract (private sector):** Aegean Geotechnical. Integrated information system, single application for European Agricultural Fund for Rural Development (EAFRD). Assisting and consulting farmers and beneficiaries on single payment application and crop/breeding declaration along with cadastral registrations and updates.
- **5/2014 – 8/2014 / Teaching assistant:** Aegean Research Unit, fixed term contact. Teaching assistant in undergraduate (1 course) and graduate-masters level (2 courses).

- **8/2009 – 10/2009 / Internship assistant (private sector):** i) Bird Migration Study in Malta using Statistical Analysis. ii) ARTEMIS project, estimating the harvesting and abundance of fauna in Greece. Forest Techniques Office: Christoforidou G., Karampatzakis Th. and Logothetis G.
- **4/2009 – 7/2009 / Internship assistant:** Protection of Natural Terrestrial Ecosystems, Laboratory. Department of Forestry and Natural Environment Management. Kavala Institute of Technology.

## Grants and contracts

- **1/2019 – Present / Co-PI:** Expanding green infrastructure as a response to environmental injustice and climate change. SEAS McIntire-Stennis Research Program 2019. Amount: 140.000\$.
- **9/2018 – Present / Postdoctoral Research Fellow:**
  - i) Sustainability Research Network (SRN): Integrated Urban Infrastructure Solutions for Environmentally Sustainable, Healthy and Livable Cities. National Science Foundation (NSF), award number: 1444745.
  - ii) The Sustainability Hoofprint of Cities: A Spatial Model to Assess Transboundary Urban Consumption. National Science Foundation (NSF), award number: 1805085.
- **4/2018 – 5/2018 / research assistant:** Mapping and spatial analysis of tea plantations in Ningde UNESCO Global Geopark, China using remote sensing techniques.
- **6/2015 – 11/2016 / research assistant:** FP7 – Sustainable Futures for Europe's Heritage in Cultural Landscapes: Tools for understanding, managing, and protecting landscape functions and values – HERCULES, Code: 2542.
- **11/2015 – 12/2015 / research assistant:** FP7 Total costs of climate changes CLIMATECOST: Mapping urban land cover of coastal Greece, using remote sensing techniques. Code: 2168.
- **2/2015 – 10/2015 / research assistant:** Creation of population density grid for Greece, employing spatial analysis methodologies. Aegean Research Unit, Code: 2692.

## Scholarships, Awards

**Marie Skłodowska-Curie Actions Seal of Excellence**, high-quality label awarded to project proposal (score received 88%)

**Scholar of the Greek State Scholarships Foundation**, PhD studies. 2013 – 2014

**Scholar of the ERASMUS Life Long Learning Program**. Summer school participation (2011)

**Scholar of the Greek State Scholarships Foundation**, MSc studies. 2010 – 2012. First place in written competition (courses: Forest Policy and Economics, Forest Biometrics, Forest Management)

## Publications

### *Peer Reviewed Journals*

Symeonakis, E., **Gounaridis, D.**, Petroulaki, K., Koukoulas, S. Spatial patterns analysis of land cover changes in Natura 2000 areas of Crete. (in preparation).

- Kizos, T., **Gounaridis, D.** et al. Making sense of the landscape: Understanding landscape preferences with the use of PPGIS in a Mediterranean locality. (in preparation)
- Zaimes, N.G., **Gounaridis, D.** Symeonakis, E. Assessing the impact of dams on riparian and deltaic vegetation using remotely-sensed vegetation indices and Random Forests modelling. *Ecological Indicators* 103, 630-641.
- Gounaridis, D.**, Chorianopoulos, I., Symeonakis, E. and Koukoulas, S. (2019). A multi-scale Random Forest/Cellular Automata modelling approach for mapping land use/cover changes in Attica (Greece), under divergent socioeconomic realities. *Science of the Total Environment* 646, 320–335.
- Gounaridis, D.**, Symeonakis, E., Chorianopoulos, I. and Koukoulas, S. (2018). Incorporating density in spatio-temporal land use/cover change patterns: the case of Attica, Greece. *Remote Sensing* 10(7), 1034.
- Kizos, T., Verburg, P.H., Burgi, M., **Gounaridis, D.**, Plieninger, T., Bieling, C. and Balatsos, T. (2018). From concepts to practice: A portfolio of approaches on drivers of landscape change. *Ecology and Society* 23(1), 25-35.
- Gounaridis, D.**, Chorianopoulos, I. and Koukoulas, S. (2018). Exploring prospective urban growth trends under different economic outlooks and land-use planning scenarios: The case of Athens. *Applied Geography* 90, 134-144.
- Garcia-Martin, M., Fagerholm, N., Bieling, C., **Gounaridis, D.**, Kizos, T., Printsman, A., Müller, M., Lieskovský, J. and Plieninger, T. (2017). Participatory mapping of landscape values in a Pan-European perspective. *Landscape Ecology* 32(11), 2133–2150.
- Dimitrakopoulos, P.G., Koukoulas, S., Galanidis, A., Delipetrou, P., **Gounaridis, D.**, Touloumi, K. and Arianoutsou, M. (2017). Factors shaping alien plant species richness spatial patterns across Natura 2000 Special Areas of Conservation of Greece. *Science of the Total Environment* 601–602, 461–468.
- Zagaria, C., Schulp, C.J.E., Kizos, T., **Gounaridis, D.** and Verburg, P.H. (2017). Cultural landscapes and behavioral transformations: An agent-based model for the simulation and discussion of alternative landscape futures in East Lesvos, Greece. *Land Use Policy* 65, 26–44.
- Gounaridis, D.** and Koukoulas, S. (2016). Urban land cover thematic disaggregation, employing datasets from multiple sources and RandomForests modeling. *International Journal of Applied Earth Observation and Geoinformation* 51, 1–10.
- Gounaridis, D.**, Apostolou A. and Koukoulas, S. (2016). Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. *Journal of Maps* 12(5), 1055-1062.
- Gounaridis, D.**, Apostolou A., Riga M., Moustos P., Mpika K., Kontou D. and Koukoulas, S. (2016). Change detection of forests and semi-natural areas in Greece for the period 1990-2010. *Aegean Journal of Environmental Sciences* 2, 1-10.

**Gounaridis, D.**, Zaimis, N.G. and Koukoulas, S. (2014). Quantifying spatio-temporal patterns of forest fragmentation in Hymettus Mountain, Greece. *Computers Environment and Urban Systems* 46, 35–44.

Iakovoglou, V., Zaimis, N.G. and **Gounaridis, D.** (2013). Riparian Areas in Urban Settings: Two Case Studies from Greece. *International Journal of Innovation and Sustainable Development* 7(3), 271 – 288.

**Gounaridis, D.** and Zaimis, N.G. (2012). GIS-based Multicriteria Decision Analysis applied for Environmental Issues. The Greek Experience. *International Journal of Applied Environmental Sciences* 7(3), 307 – 321.

Zaimis, N.G., **Gounaridis, D.**, Iakovoglou, V. and Emmanouloudis, D. (2011). Riparian Area Studies in Greece: A Literature Review. *Fresenius Environmental Bulletin* 20 (6a), 1470 – 1477.

Zaimis, N.G., **Gounaridis, D.** and Fotakis, D. (2011). Assessing riparian land-uses/vegetation cover along the Nestos River in Greece. *Fresenius Environmental Bulletin* 20 (12), 3217 – 3225.

Zaimis, N.G., Iakovoglou, V., Emmanouloudis, D. and **Gounaridis, D.** (2010). Riparian Areas of Greece: Their Definition and Characteristics. *Journal of Engineering Science and Technology Review* 3 (1), 176-183.

### **Book Chapters**

Nitis T., Tsegas G., Moussiopoulos N., **Gounaridis D.** (2018) Assimilating Anthropogenic Heat Flux Estimated from Satellite Data in a Mesoscale Flow Model. In: Mensink C., Kallos G. (eds) Air Pollution Modeling and its Application XXV. ITM 2016. Springer Proceedings in Complexity. Springer.

### **Articles in Conference Proceedings**

Nitis, T., Tsegas, G., Moussiopoulos, N., **Gounaridis, D.** and Bliziotis, D. Satellite data based approach for the estimation of anthropogenic heat flux over urban areas. Proceedings SPIE, 104441P. RSCy2017.

Zaimis, N.G., **Gounaridis, D.**, Iakovoglou, V. and Emmanouloudis, D. Assessing soil erosion risk for Rhodes Island, Greece with a GIS-based Multi-Criteria Decision Analysis. Proceedings: The 4<sup>th</sup> IASTED African Conference on Water Resource Management – Africa WRM. 3-5 September 2012. Gaborone, Botswana.

Iakovoglou, V., Zaimis, N.G. and Gounaridis, D. Managing healthy riparian areas in urban settings of Greece to improve living conditions. Proceedings: Protection and Restoration of the Environment XI. 3-6 July 2012. Thessaloniki, Greece.

### **Abstracts in Conference Proceedings**

**Gounaridis, D.** and Newell, J. Exploring Prospective Pathways to Scale Up Urban Agriculture: The Case of Detroit. American Association of Geographers annual meeting, 3-7 April 2019. Washington DC, USA.

Nitis, T., Tsegas, G., Moussiopoulos, N., **Gounaridis, D.** and Bliziotis, D. Satellite data based approach for the estimation of anthropogenic heat flux over urban areas. 5<sup>th</sup> International Conference on Remote Sensing and Geoinformation of Environment, 20-23 March 2017. Paphos, Cyprus.

**Gounaridis, D.**, Apostolou, A., Riga, M., Moustos, P. and Koukoulas, S. Detecting changes in forest cover of Greece (1990-2010) utilizing Landsat imagery and semi-automatic trained Random Forests algorithm. 7<sup>th</sup> National Congress of Ecology, 9-12 October 2014. Mytilene, Greece.

Kalabokidis, K., Palaiologou, P. and **Gounaridis, D.** Analysis of post fire natural regeneration of a Mediterranean forest in the mountainous environment of Lesbos island. 6<sup>th</sup> National Congress of Ecology, 4-7 October 2012. Athens, Greece.

Zaimis, N.G., Mallinis, G., **Gounaridis, D.**, Emmanouloudis, D., Iakovoglou, V. and Mitsopoulos, I. Mitigating land degradation in a Natura 2000 site by targeting reforestation areas with the use of Remote Sensing, GIS and Multi-Criteria Analysis. IUFRO Conference on Restoring Forests: Advances in Techniques and Theory, 27-29 September 2011. Madrid, Spain.

## Teaching

### **2016: Lifelong Learning. University of the Aegean**

#### E-learning Postgraduate

Introduction to Geographic Information Systems (QGIS). 10 Teaching modules  
(with D. Kavroudakis and G. Papapanos)

### **2014: Teaching Assistant, Department of Geography. University of the Aegean**

#### Undergraduate

Applications of Geographic Information Systems (GIS) (with S. Koukoulas)

#### Postgraduate

Special issues in Geographic Information Systems (GIS) (with S. Koukoulas)

Applications of Remote Sensing (RS) (with C. Petropoulou)

## Guest lectures

**Gounaridis, D.** (2018). Exploring prospective urban growth trends under different economic outlooks and land-use planning scenarios: The case of Athens. Undergraduate level class - Geographic Information Systems (GIS) applications, Department of Geography, University of the Aegean.

**Gounaridis, D.** (2018). Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. Undergraduate level class – Introduction to Remote Sensing, Department of Geography, University of the Aegean.

**Gounaridis, D.** (2016). Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. Undergraduate level class – Introduction to Remote Sensing, Department of Geography, University of the Aegean.

## **Referee service**

### Journals:

Computers, Environment and Urban Systems; International Journal of Applied Earth Observation and Geoinformation; ISPRS International Journal of Geo-Information; Land; Nature Communications; PLOS One; Remote Sensing; Science of the Total Environment; Sensors; Transactions in GIS

### Grant proposals:

US National Science Foundation (proposal submitted to the Geography and Spatial Sciences (GSS) Program)