Stylianos Hadjipetrou

Curriculum Vitae

Cyprus University of Technology
Department of Civil Engineering and Geomatics
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Education

Cyprus University of Technology
Ph.D. Candidate in "Geostatistics and Spatial Analysis in Engineering and Geosciences".
Research fields: Geostatistics, Spatial Analysis, GIS, Geocomputation
Advisor: Prof. Phaedon Kyriakidis

2017 - Present

University of Thessaly
M.Sc., Spatial Analysis and Environmental Management
Thesis: Temporal Monitoring of Urbanization in Cyprus using Night
          Lights.
Advisor: Prof. Demetris Stathakis
Master's degree: 9,25/10

2015 - 2016

B.Eng., Planning and Regional Development
Thesis: Land use/cover Change Detection of Latsia Municipality using
          Quickbird Remote Sensing Data.
Advisor: Prof. Konstantinos Perakis
Bachelor's degree: 8,17/10

2010 - 2015

Research Projects

Research Associate
OenoWatch: The aim of the OenoWatch project is to study, develop,
            implement and pilot a holistic phytosanitary and plant
            protection system based on the use of an unmanned ae-
            rial vehicles and a series of cutting-edge technologies, as
            well as the establishment of a Competence Center for Pre-
            cision Viticulture.
Funding source: Cyprus Research and Innovation Foundation (Restart
2016-2020: Integrated)

2021 - Present

Research Associate
ID-VRisk: The action is utilizing the mosquito surveillance network al-
            ready established in Cyprus to:
            • Carry out an island-wide survey for native and invasive mo-
            squito vectors in higher risk regions for disease transmission.
            • Develop a vector-borne disease management plan using
            West-Nile Virus (WNV) surveillance as a model.
            • Integrate an early warning system to timely predict possible
            outbreaks of WNV and later other mosquito-borne diseases.
            • Enhance capacity building of Greek Cypriots and Turkish
            Cypriots to perform joint surveillance programs.

2022
(June - Sep.)

        • Establish the fundamental pillars for integrated vector management (vector and disease surveillance, public outreach and education, quality control and research).

Funding source: United Nations Development Program (UNDP)

Research Associate   2019 - 2021

GeoWindSat: GeoWindSat project aims to refine the relatively coarse wind information available for offshore areas of Cyprus through prediction and models, numerical weather thus contributing towards a more detailed offshore wind speed and direction assessment for the region, via a suite of different data sources and advanced and geostatistical methods for data fusion.

Funding source: Cyprus Research and Innovation Foundation (Restart 2016-2020: International Collaboration - Dual Targeting)

Research Associate   2019 - 2020

AEGIS: Developing a Cross-border Intelligent Integrated Innovative Resource Management System, Decision Making and Education to Address Natural and Technological Disasters and Human and Social Crises.

Funding source: European Regional Development Fund (Interreg VA Greece – Cyprus 2014-2020)

Teaching Experience

Department of Civil Engineering and Geomatics, CUT
GEO 214: Principles of Geoinformatics and GIS   2018 - 2021
Teaching Assistant   (Jan. - June)
• Lectured Undergraduate Students on Fundamental GIS Principles and Concepts.
• Conducted Lab Sessions Focused on Acquiring Technical Skills in GIS and Spatial Analysis using ArcMap and QGIS.
• Graded Lab Reports and Attendance.

Department of Civil Engineering and Geomatics, CUT
GEO 333: Geography and Spatial Analysis   2022
Teaching Assistant   (Sep. - Jan.)
• Lectured Undergraduate Students on basic geographical concepts and the fundamentals of spatial analysis.
• Conducted Lab Sessions on Matlab and ArcGIS Pro software.
• Graded Lab Reports and Attendance.

Publications

Book Chapters

• Ακύλας Ε., **Χατζηπέτρου Σ.**, Γραβάνης Η., Νικολαΐδης Α., Κυριακίδης Φ. (2023). Διαδραστική απεικόνιση και εκτίμηση του αιολικού δυναμικού στη θαλάσσια περιοχή της Κύπρου. Στο *Παυλογεωργάτος Γ., Αλιούρης Κ., Ιωάννου Ν., Χατζημιτσής Δ. (Επιμ.) Θαλάσσιος Χωροταξικός Σχεδιασμός στην Ελλάδα και την Κύπρο* (σσ. 361-380). Αθήνα, Ελλάδα: Προπομπός. ISBN: 9786185705077.   A1

Peer-Reviewed Journals

• **Hadjipetrou S.**, Mariethoz G, Kyriakidis P. Gap-Filling Sentinel-1 Offshore Wind Speed Image Time Series Using Multiple-Point Geostatistical Simulation and Reanalysis Data. Remote Sensing. 2023; 15(2):409. https://doi.org/10.3390/rs15020409

B2

• **Hadjipetrou S.**, Liodakis S., Sykioti A., Katikas L., Park N-W., Kalogirou S., Akylas E. and Kyriakidis P.: Evaluating the suitability of Sentinel-1 SAR data for offshore wind resource assessment around Cyprus, *Renewable Energy*, https://doi.org/10.1016/j.renene.2021.10.100.

B1

Peer-Reviewed Conference Proceedings

• Kyriakidis, P., Kavroudakis, D., Fayad, P., **Hadjipetrou S.**, Leventis G., and Papakonstantinou, A.: Promoting the adoption of agent-based modelling for synergistic interventions and decision-making during pandemic outbreaks, AGILE GIScience Ser., 2, 44, https://doi.org/10.5194/agile-giss-2-44-2021, 2021.

C3

• **Hadjipetrou S.**, Liodakis S., Sykioti A., Fayad P., Akylas E., Park N-W., and Kyriakidis P. (2020): Preliminary assessment of offshore wind speed around Cyprus based on Sentinel-1 Level 2 OCN data, *Proc. SPIE 11524, Eighth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2020)*, 115240O (26 August 2020); https://doi.org/10.1117/12.2571945.

C2

• **Hadjipetrou S.** & Stathakis D. (2019): Monitoring Urbanization Dynamics in Cyprus using Time-Series DMSP/OLS Nightlight Imagery, In: Kyriakidis, P., Hadjimitsis, D., Skarlatos, D. & Mansourian, A. (Eds.), 2019. *Accepted Short Papers and Posters from the 22nd AGILE Conference on Geo-information Science.* Cyprus University of Technology 17-20 June 2019, Limassol, Cyprus.ISBN 978-90-816960-9-8, Publisher: Stichting AGILE.

C1

Peer-Reviewed Extended Conference Abstract

• **Hadjipetrou S.**, Liodakis S., Sykioti A., Kyriakidis P., Park N-W (2021): Geostatistical Downscaling of offshore wind speed data derived from numerical weather prediction models using higher spatial resolution satellite products, *13th International Conference on Geostatistics for Environmental Applications (geoENV2020)*, June 18, Parma, Italy.

D1

Peer-Reviewed Conference Abstracts

• **Hadjipetrou S.**, Mariethoz. G. & Kyriakidis P. (2022): Gap-Filling Sentinel-1 Offshore Wind Speed Image Time Series using Multiple-Point Geostatistical Simulation and Reanalysis Data, *14th International Conference on Geostatistics for Environmental Applications: geoENV2022*, June 22-24, Parma, Italy.

E4

- **Hadjipetrou S.**, Mariethoz. G. (2021): Sentinel-1 SAR Level-2 OCN Offshore Wind Speed Time-Series Simulation using Multiple-Point Statistics, *Spatial Data Science 2020*, June 8-11, Lausanne, Switzerland.   — E3

- **Hadjipetrou S.**, Kyriakidis P. & Mariethoz G. (2020): Geostatistical downscaling of offshore coarse spatial resolution wind speed data using satellite-derived wind information, *18th Swiss Geoscience Meeting, 2020 Zurich (Online)*; https://geoscience-meeting.ch/sgm2020/program/session-program/.   — E2

- Kyriakidis P., Kavroudakis D., Papakonstantinou A., **Hadjipetrou S**, Leventis G. & Fayad P. (2020): On the role of geospatial modeling and simulation for synergistic decision-making and planning in a pandemic context (in Greek), in: *Proceedings of the 11th Panhellenic Conference of the Hellenic Assocation for Geographical Information Systems (HellasG.I.s), Athens, Greece, November 18-20, 2020 (Online)*.   — E1

Work Experience		
	Research Associate **Cyprus University of Technology, Limassol, Cyprus** Geospatial Analytics Research Lab http://geospatialanalytics.cut.ac.cy	2017 - Present

GIS Specialist — 2018 - 2020
Primetel PLC, Nicosia, Cyprus
- Geospatial Analysis using Open-Source (QGIS) and Proprietary Software (MapInfo)
- Spatial Data and Database Management
- Web Mapping
- PyQGIS Scripting
- Automating Workflows using Graphical Modeler

Urban Planner — 2018 (Jan. - June)
ALA Planning Partnership, Nicosia, Cyprus
- Local and Regional Spatial Planning
- Spatial Data Management
- GIS Analysis for Urban and Environmental Studies
- Digital Mapping

Summer Schools
- "Copernicus for Digital Earth" Summer School 2019, University of Salzburg, Austria | Department of Geoinformatics – Z_GIS.   — 2019 (June - July)

Workshops and Seminars
- "Copernicus Marine training and workshop dedicated to the Mediterranean sea" organized by Copernicus Marine Service (online).   — 2022 (Jan.)

- "Seminar on crop classification using Sentinel data" organized by Eratosthenes Centre of Excellence (online).   — 2021 (Nov.)

- "Deep Learning Workshop" organized by the University of Neuchatel (online).   — 2021 (Jan.)

	• "R for Geovisualization, Geoprocessing and Geoanalytics" workshop organized during the 22nd Agile International Conference on Geographic Information Science, Limassol, Cyprus.	2019 (June)
	• "The Town and Country Planning Act, Development Plans and Permissions Seminar", Nicosia, Cyprus.	2017 (March)
	• "Introduction to Geographic Information Systems (GIS)", ArcGIS I Version 10.x., Limassol, Cyprus.	2017 (Feb)
	• "Matlab, the language of technical computing", 1-day seminar of CIvil engineering and GEomatics engineers SOciety, Limassol, Cyprus.	2017 (Feb)

Honours and Awards	**Swiss Government Excellence Scholarship** 1-year research fellowship at the Institute of Earth Surface Dynamics (IDYST) of the University of Lausanne.	2020 - 2021
	Cyprus State Institution (IKY) Scholarship for PhD studies	2017 - 2020
	Distinction Award Scholarship for attaining the best academic performance among the graduates of M.Sc. in "Spatial Analysis and Environmental Management", Department of Planning and Regional Development, University of Thessaly, Volos.	2016 (Nov.)
	Best Performance Award Best planning exercise as part of the course: "Rural and Envrinomental Planning", Department of Planning and Regional Development, University of Thessaly, Volos.	2013 (Feb.)

Certifications	• The Location Advantage, ESRI Mooc	2017 (May)
	• Do-it-yourself Geo Apps (License UC-GHGTV2EX) - ESRI Mooc	2016 (July)
	• Going Places with Spatial Analysis (License UC-LOY4988X) - ESRI Mooc	2016 (July)
	• GISPro in Progress Certificate (License EL6211511233SC) - ECDL Foundation	2016 (May)

Memberships	**Member of the European Geosciences Union (EGU)** Since 2021
	Member of Scientific Technical Chamber of Cyrpus (ETEK) Since November 2016 (Licence A177374)
	Member of HellasGIs Since December 2016

Member of Specialty Committee of Urban Planning and Regional Development of ETEK
2017-2020

Languages and Skills

Languages: Greek (Native), English (Fluent), Spanish (Beginner)

Digital Skills: MS Office Packages, LaTeX, Python, R, Matlab, SPSS, Geoda, ArcGIS, QGIS, Erdas Imagine, Grass GIS