CURRICULUM VITAE (CV)
Christos Polykretis

GENERAL INFORMATION

SURNAME:	Polykretis
NAME:	Christos
DATE OF BIRTH:	16/06/1988
NATIONALITY:	Greek
PLACE OF BIRTH:	Athens, Greece
PLACE OF RESIDENCE:	Rethymno, Crete, Greece
ADDRESS (OFFICE):	Nikiforou Foka 130, 74100 Rethymno, Crete, Greece
	Laboratory of Geophysical-Satellite Remote Sensing and Archaeo-environment (GeoSat ReSeArch)
	Institute for Mediterranean Studies (IMS)
	Foundation for Research and Technology - Hellas (FORTH)
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EDUCATION

21/01/2015 – 14/12/2018	PhD in Geoinformatics for Environmental Modeling
	Thesis title: *"Evaluation of landslide susceptibility assessment methods by using Geoinformatics"*
	Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece
	Degree classification: Excellent
29/09/2011 – 18/04/2013	MSc in "Geographical Data Management and Analysis (Geoinformatics)" of the postgraduate programme "Applied Geography and Spatial Planning"

Thesis title: *"Development of landslide susceptibility assessment models by using Geoinformatics and Artificial Intelligence methods"*

Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece

Degree classification: Excellent

01/09/2006 – 19/11/2010

BSc in Geography

Thesis title: *"GIS applications (landslides): Application for the region of Peloponnese"*

Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece

Degree classification: Very Good

2006

Graduation from 3rd High School of Agios Dimitrios, Athens, Greece

Degree classification: Very Good

RESEARCH ACTIVITY

01/08/2019 – today

Postdoctoral Researcher

Laboratory of Geophysical-Satellite Remote Sensing and Archaeo-environment (GeoSat ReSeArch) IMS-FORTH, Rethymno, Greece

Duties: Related to the laboratory

07/06/2019 – today

Postdoctoral Researcher

School of Environmental Engineering, Technical University of Crete, Chania, Greece

Project: *"Development of an integrated 5 Dimensional space based methodology for Assessing and modeling the Response of Erosion dynamics to land use and climatic changes in Mediterranean watersheds (5DARE)"* (funded

by Hellenic Foundation for Research and Innovation (HFRI) and General Secretariat for Research and Technology Hellas (GSRT), under grant agreement No 651)

Duties: All the duties related to the project

05/09/2018 − 05/11/2018	External collaborator
	Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece
	Project: *"Economy, Environment and Landscape in the Long Historical Time of Cyprus: A Combined Analysis Using Historical Data & Modern Geoinformatics Applications"* (funded by Sylvia Ioannou Foundation)
	Duties: Upgrade-enrichment of "Kitchener" web application (https://geoprojects.hua.gr/kitchener/)
01/12/2017 − 20/12/2017	External collaborator
	Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece
	Project: *"Representations of the Coastal Zone of Cyprus through sections of historical maps and other depictions"* (funded by Sylvia Ioannou Foundation)
	Duties: Recognition of geographical features
01/09/2017 − 30/09/2017	External collaborator
	Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece
	Project: *"Development of infrastructure, organization and distribution of geospatial information of the Municipality of Lemnos through Geo-spatial Infrastructures"* (funded by

Municipality of Lemnos)

Duties: Configuration of spatial data – GIS thematic layers

31/12/2015 − 25/07/2016	External collaborator

Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece

Project: *"Creation of mapping database and web-based application for the presentation of geographical information of the Kitchener map (15 sheets) for Cyprus Island (vers. 1885)"* (funded by Sylvia Ioannou Foundation)

Duties: Creation of spatial database – digitizing of map sheets and production of thematic layers

TEACHING EXPERIENCE

27/01/2015 – 09/02/2018	Laboratory Assistant

Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece

Support teaching in labs of (a) undergraduate courses: *"GIS I"* and *"GIS II"*, and (b) postgraduate courses: *"Applied Spatial Analysis using GIS"* and *"Geoinformatics in Disaster Management"*

09/05/2015 – 30/05/2015	Teaching Assistant

Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece

Support teaching for the project *"Environmental Geoinformatics"* (funded by University of the Aegean) in courses: *"Geographical Information Systems"* and *"Thematic Cartography / Visual representation of geographical data"*

28/06/2014− 9/07/2014	Teaching Assistant
	Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Greece
	Support teaching for the *"Introductory training seminar on Geoinformatics for secondary teachers"*

WORK EXPERIENCE

05/04/2019 – 17/05/2019	GIS Analyst
	Geoapikonisis S.A. Consulting Engineers & Geoinformation Applications, Athens, Greece
	Duties: Use of GIS and database tools for the creation of National Cadastre
02/01/2018 − 31/08/2018	GIS Analyst
	Thomas Nakas Publications S.A., Rafina, Greece
	Duties: Creation and configuration of different types of maps (hiking, tourist, etc)
05/04/2018 − 05/05/2018	External collaborator
	Non-profit humanitarian association "Doctors Without Borders / Medecins Sans Frontieres (MSF) – Greek Section", Athens, Greece
	Duties: Creation of mapping representations using the available material derived from questionnaires about the mobilization around the migration crisis response from 2015 to 2018, for the project *"Urban MSF Spaces"*
19/01/2015 − 28/03/2015	GIS Analyst
	ELPHO, Athens, Greece
	Duties: Quality control, georeferencing and digitizing documents of Public Property

28/09/2009 − 20/11/2009	GIS Analyst
	Laboratory of Digital Mapping and GIS, Directorate of General Geology and General Cartography, Institute of Geology and Mineral Exploration (IGME), Athens, Greece
	Duties: Maintenance and update of geology databases and maps (practical work)

PUBLICATIONS

➢ **Book chapters:**

- Stathopoulos, N., Kalogeropoulos, K., **Polykretis, C.**, Skrimizeas, P., Louka, P., Karymbalis, E., Chalkias, C. (2018) *Introducing Flood Susceptibility Index Using Remote-Sensing Data and Geographic Information Systems: Empirical Analysis in Sperchios River Basin,Greece*. In: Petropoulos, G.P., Islam, T. (Eds.) *Remote Sensing of Hydrometeorological Hazards*, Boca Raton: CRC Press, Chapter 18, 381–400

➢ **Journal papers:**

- **Polykretis, C.**, Grillakis, M.G., Alexakis, D.D. (2020) *Exploring the Impact of Various Spectral Indices on Land Cover Change Detection Using Change Vector Analysis: A Case Study for Crete Island, Greece*. Remote Sensing (in press)

- Chalkias, C., **Polykretis, C.**, Karymbalis, E., Soldati, M., Ghinoi, A., Ferentinou, M. (2020) *Exploring spatial non-stationarity in the relationships between landslide susceptibility and conditioning factors: A local modeling approach using geographically weighted regression*. Bulletin of Engineering Geology and the Environment (in press)

- **Polykretis, C.**, Kalogeropoulos, K., Andreopoulos, P., Faka, A., Tsatsaris, A., Chalkias, C. (2019) *Comparison of Statistical Analysis Models for Susceptibility Assessment of Earthquake-Triggered Landslides: A Case Study from 2015 Earthquake in Lefkada Island*. Geosciences, 9(8), 350

- **Polykretis, C.**, Chalkias, C., Ferentinou, M. (2019) *Adaptive neuro-fuzzy inference system (ANFIS) modeling for landslide susceptibility assessment in a Mediterranean hilly area*. Bulletin of Engineering Geology and the Environment, 78(2), 1173–1187

- **Polykretis, C.**, Chalkias, C. (2018) *Comparison and evaluation of landslide susceptibility maps obtained from weight of evidence, logistic regression, and artificial neural network models*. Natural Hazards, 93(1), 249–274

- **Polykretis, C.**, Faka, A., Chalkias, C. (2018) *Exploring the Impact of Analysis Scale on Landslide Susceptibility Modeling: Empirical Assessment in Northern Peloponnese, Greece*. Geosciences, 8(7), 261

- Chalkias, C., Vradis, C., Kalogeropoulos, K., Papadias, V., **Polykretis, C.**, Chalkias, G., Psarogiannis, T. (2017) *Creation of spatial database and Web application for the presentation of the geographic information of Cyprus from the map of Kitchener (pub. 1885)*. Geographies, 30, 119–124 (in Greek)

- Chalkias, C., **Polykretis, C.**, Ferentinou, M., Karymbalis, E. (2016) *Integrating Expert Knowledge with Statistical Analysis for Landslide Susceptibility Assessment at Regional Scale.* Geosciences, 6(1), 14

- **Polykretis, C.**, Ferentinou, M., Chalkias, C. (2015) *A comparative study of landslide susceptibility mapping using landslide susceptibility index and artificial neural networks in the Krios River and Krathis River catchments (northern Peloponnesus, Greece)*. Bulletin of Engineering Geology and the Environment, 74(1), 27–45

- Chalkias, C., Ferentinou, M., **Polykretis, C.** (2014) *GIS-Based Landslide Susceptibility Mapping on the Peloponnese Peninsula, Greece*. Geosciences, 4(3), 176–190

- Chalkias, C., Ferentinou, M., **Polykretis, C.** (2014) *GIS Supported Landslide Susceptibility Modeling at Regional Scale: An Expert-Based Fuzzy Weighting Method*. ISPRS Int. J. Geo-Inf., 3(2), 523–539

CONFERENCES

➢ **Oral presentations, with published proceedings:**

- **Polykretis, C.**, Bersimis, F.G., Andreopoulos, P. (2017) Application of mathematical methods for susceptibility assessment of landslides triggered by 2015 earthquake in Lefkada. In: Proceedings of *34th Greek Conference of Mathematics Education*, Lefkada, Greece, 3–5 November 2017 (in Greek)

- **Polykretis, C.**, Ferentinou, M., Chalkias, C. (2013) Landslide susceptibility mapping by using Artificial Neural Networks. In: Kalogirou, S. (ed.) *1st Spatial Analysis Conference*: Proceedings, Athens, Greece, 17–18 May 2013 (in Greek)

➢ **Posters:**

- Grillakis, M.G., **Polykretis, C.**, Alexakis, D.D. (2020) A method to fill-in discontinued daily precipitation series from nearby stations. A case study in Crete, Greece. *EGU General Assembly 2020*, Vienna, Austria, 3–8 May 2020

- Alexakis, D.D., **Polykretis, C.**, Grillakis, M.G. (2020) Studying soil erosion rates through landscape fragmentation. A case study in Crete, Greece. *EGU General Assembly 2020*, Vienna, Austria, 3–8 May 2020

- **Polykretis, C.**, Grillakis, M.G., Alexakis, D.D. (2020) Land cover change detection in Crete Island, Greece, using different combinations of biophysical indices in change vector analysis. *EGU General Assembly 2020*, Vienna, Austria, 3–8 May 2020

- **Polykretis, C.**, Grillakis, M.G., Alexakis, D.D. (2020) Land cover change detection in Crete Island, Greece, using, change vector analysis. *OpenEARTH*, Thessaloniki, Greece, 12–14 February 2020

- Kalogeropoulos, K., Andreopoulos, P., Stathopoulos, N., **Polykretis, C.**, Faka, A., Tragaki, A., Tsatsaris, A., Chalkias, C. (2019) The history-geography of the population of Greece using geodemographic indicators. *12th International Conference of Hellenic Geographical Society*, Athens, Greece, 1–4 November 2019 (in Greek)

- **Polykretis, C.**, Alexakis, D.D. (2019) Studying land use/land cover spatial patterns distribution in Crete, Greece with means of satellite remote sensing. *TERRAenVISION 2019*, Barcelona, Spain, 2–6 September 2019

- Stathopoulos, N., Kalogeropoulos, K., **Polykretis, C.**, Skrimizeas, P., Louka, P., Karymbalis, E., Chalkias, C. (2018) Flood Susceptibility Index (FSI) - A new Index for mapping Flood Susceptibility via RS & GIS. *1st Workshop of Remote Sensing and Space Applications*, Athens, Greece, 21 February 2018

WORKSHOP/SCHOOL PARTICIPATIONS

03 – 14/09/2018	Summer School on *"Landslide Risk Assessment and Mitigation (LARAM)"*, University of Salerno, Salerno, Italy
13/02/2015	*"Mapping Urban Areas from Satellite Imagery: A Seminar on the Global Human Settlement Layer and Applications of the European Settlement Map (ESM)"*, Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens, Athens, Greece
21 – 23/05/2012	*"International Forum on Satellite Earth Observation for Geo-Hazard Risk Management"*, European Space Agency (ESA), Santorini, Greece

HONORS AND AWARDS

04/08/2017 – 30/06/2018	PhD Fellowship by Hellenic Foundation for Research and Innovation (HFRI) and General Secretariat for Research and Technology (GSRT), under grant agreement No 2199
04/2013	MSc Fellowship for 3rd semester of postgraduate studies by Department of Geography, School of Environment Geography and Applied Economics, Harokopio University of Athens

REVIEWER IN PEER REVIEW JOURNALS

- ISPRS International Journal of Geo-Information
- Remote Sensing
- Applied Sciences

SCIENTIFIC COMMUNITY MEMBERSHIPS

2020 – today	European Geosciences Union (EGU)

LANGUAGES

Greek	Mother tongue
English	Proficient user
French	Basic user

COMPUTER SKILLS

- Geoinformatics software packages:
    - Geographic Information Systems (GIS): ESRI/ArcGIS, Quantum GIS, SAGA GIS, Global Mapper
    - Remote sensing: ENVI, ERDAS Imagine, ILWIS
- Statistical analysis software packages: SPSS, GWR, FRAGSTATS
- MATLAB software package

- Relational databases (language SQL) and development of Geodatabases in PostgreSQL/PostGIS

- Languages and technologies HTML, XML (GML, SVG, KML), XSL, RSS, PHP, AJAX, JAVASCRIPT

- Geographical Mashups (Google Maps API)

- Disposal services and standards of geographical/mapping content in Web (WMS, WFS, WCS)

- Microsoft Office tools (Word, Excel, PowerPoint, etc)