

CURRICULUM VITAE

1. PERSONAL DATA

Surname: Alexandrakis
Forename: Georgios
Date of Birth: 23/11/1978
Nationality: Greek
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2. CURRENT STATUS

Post Doctoral researcher in the Institute of Applied and Computational Mathematics – Foundation of Research and Technology Hellas.

3. EDUCATION

- 2006–2011:** PhD in Geological Oceanography, University of Athens.
THESIS: “The development of a Beach Vulnerability Index (BVI) for the assessment of beach zone erosion in Greece”.
- 2003-2006:** Master in Oceanography (MSc), University of Athens.
THESIS: “Beach erosion and sediment transport in Ammoudara beach, Iraklion Crete. The effect of a natural barrier reef”.
THESIS COMMITTEE - REFERENCE: by Serafim Poulos, Assistant Professor
- 1997-2002:** First Degree in Geology (BSc), “Dynamic Tectonics and Applied Geology», UNIVERSITY OF ATHENS

3. SCHOLARSHIPS - GRANDS

Geological oceanography scholarship from the State Scholarships Foundation (2007-2011)

Scholarship from the Foundation of Research and Technology Hellas, from 1-2-2008 to 31-12-2008 and 1-6-2010 to 31-4-2011.

Post-Doctoral fellowships 2010, Ministry of Education, 2012-14.

4. MEMBER OF SOCIETIES

Geotechnical Chamber of Greece

Hellenic Oceanographers Association

5. SOFTWARE KNOWLEDGE

Excellent use Windows/ Linux/ DOS/ INTERNET.

Excellent knowledge of Microsoft Office (Excel, Word, PowerPoint, Access), Raster2Vector, ArcGIS, Cedas, Surfer, Matlab, GlobalMapper

Good knowledge of ERDAS, HecRas, RockLab, Photoshop, Mike 21, Limitstage Geo, SPSS.

6. SUMMER SCHOOLS AND SEMINARS

Summer School in "Mathematical modeling in ocean Science" Mitilini, 4-17 July 2005

Seminar «Advanced technologies and remote sensing techniques in the monitoring and protection of forestal and other land ecosystems. (PROTHPA). Image Data processing». National Observatory of Athens, Institute for Space Applications and Remote Sensing, 7-19 January 2008

Summer School «Underwater acoustics» Foundation of Research and Technology Hellas, Heraklion Crete, 18-27 June 2008

1st ESF MedCLIVAR summer school «*Climate variability over the Mediterranean area: Atmospheric and Oceanic Components*» Hydrobiological Station and Aquarium of Rhodes 17-27 September 2008, Island of Rhodes GREECE

7. FOREIGN LANGUAGES

English (Michigan Proficiency in English)

German (well)

Italian (well)

8. RESEARCH INTERESTS

Coastal geology and sedimentology

Seismic reflection

Ocean acoustic tomography

Geotechnical investigations

Climatic change: Sea and land interaction

9. PUBLICATIONS

a. Refereed Journals, Books

1. Poulos S.E., Dounas C.G., **Alexandrakis G.**, Koulouri P., and Drakopoulos P. 2008. Trace metal distribution in sediments of northern continental shelf of Crete Island, Eastern Mediterranean. *Environmental Geology*, Volume 58, Number 4 / August, 2009 DOI 10.1007/s00254-008-1560-1)
2. **Alexandrakis G.**, Karditsa A., Poulos S., Ghionis G., Kampanis N.A.. (2010). An assessment of the vulnerability to erosion of the coastal zone due to a potential rise of sea level: The case of the Hellenic Aegean coast. In Environmental Systems, [Ed. Achim Sydow], in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UK.
3. **Alexandrakis G.**, Poulos S., Petrakis S and Collins M. (2011). The development of a Beach Vulnerability Index (BVI) for the assessment of erosion in the case of the North Cretan Coast (Aegean Sea). *Hellenic Journal of Geosciences*, vol. 45. pp 11-21
4. Flouri E.T., Kaligeris N., **Alexandrakis G.**, Kampanis N.A and Synolakis C.E., (2011) Application of a finite difference scheme to the simulation of a tsunami wave propagation and run-up, *Applied Numerical Mathematics* doi:10.1016/j.physletb.2003.10.071.
5. **Alexandrakis G.** Ghionis G., S. Poulos, and Kampanis N.A., *GREECE*, in Coastal Erosion and Protection in Europe: A Comprehensive Overview, E. Pranzini, A. T. Williams (Eds.), EARTHSCAN Ltd, London, UK, (in press)

b. Proceedings (with review)

1. Drakopoulos G., Poulos S., Banks A., **Alexandrakis G.**, Christodoulou K. και Panatzoglou F: "The effect of waves and nearshore currents in sedimentology of the Gavdos island (Karave port)" 7th Greek conference of Geography, Mitilini, 14-17 October 2004. pp 191-196.
2. Poulos S.E. and **Alexandrakis G.** 2005 "Seasonal fluctuation of the sediment (in suspension) yield of parts of Greek river catchments and its relation to the corresponding values of water yield". 7^o Greek Hydrological conference, Athens, 5-6 October 2005. pp 437-444
3. **Alexandrakis G.**, Dounas C. & Poulos S. E. "The relation between the grain-size and heavy metal concentrations in the surficial bottom sediments of the gulf of Heraklion, Crete" 8^o Greek Symposium in Oceanography and fisheries, Thessaloniki, 4-8 June 2006. vol.1, pp. 739-743
4. **Alexandrakis G.**, Poulos S., Ghionis G., and Leivaditis G., 2006. A morphological study of a reef with beachrock characteristics, in association with the recent evolution of the Ammoudara beach zone (Heraklion, Crete). Bulletin of the Geological Society of Greece, vol. XXXIX/III, pp. 146-155.

5. **Alexandrakis G.**, Poulos S., Dounas C. and Drakopoulos P., 2007. Heavy metal distribution in the surficial bottom sediments of the northern continental shelf of Crete. *Rapport du Commission Internationale Mer Mediterranee CIESM*, vol. 38, p.223
6. Poulos S., **Alexandrakis G.**, Karditsa A., & Drakopoulos P., 2007. Heavy metal investigation, as pollutant indicators, in bottom sediments, in the harbors Heraklion and Alexandroupolis (Aegean Sea, Greece). *Proceedings of the 10th International Conference on Environmental Science and Technology (CEST-2007)*, Kos Island, Greece, 5-7/9/2007, pp. B634-B641.
7. Chatzieletheriou M., **Alexandrakis G.**, Poulos S. Gaki k., Maroukian X. 2007. Assessment of vulnerability to a future sea-level rise of the E and NE coast of Attica. *Proceedings of the 8th Pan-Hellenic Geographical Conference*, vol. 1, 298-305 pp.
8. Ghionis S., Poulos S., Kampanis N., Verikiou E., Karditsa A., **Alexandrakis G.** & Andris P., 2008. The effects of a severe storm event on the NW coast of Lefkada Island, Ionian Sea (Greece). *General assembly of European Geosciences Union, Geophysical Research Abstracts*, vol. 10, p. A-617
9. **Alexandrakis G.**, Karditsa A., Poulos S., Ghionis G., Kampanis N.A.. (2009). Assessment of the vulnerability of the coastal zone to a potential rise of sea level 9th Greek Symposium in Oceanography and fisheries, vol. I, 327-332 pp.
10. **Alexandrakis G.**, Poulos S. and Velegrakis A. 2010. The development of a vulnerability index for beach erosion, based on a sediment budget approach., *Rapport du Commission Internationale Mer Mediterranee CIESM Vol. 39* - page 713.
11. Flouri E.T., Kaligeris N., **Alexandrakis G.**, Kampanis N.A. and Synolakis C.E., Numerical modelling of tsunami waves: Application to the simulation of an earthquake generated tsunami, NUMAN 2010 Proceedings, V. Dougalis, E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, Y. G. Saridakis, M, N, Vrahatis (Eds.), 74-83
12. Karagkiozoglou K., Poulos S.E., Verikiou E., and **Alexandrakis G.**, (2010) Physiogeographical study of the beach zones of Gialos and Milopotamos Ios Island. *9th PanHellenic Conference of Geography*, 4-6/11/2010, Athens.
13. Tsoutsia A., Karditsa A., **Alexandrakis G.**, Poulos S.E., Petrakis S. and Anastasatou M., 2010. Coastal geomorphological and sedimentological research in Katelios Gulf, Kefallonia Island. *9th PanHellenic Conference of Geography*, 4-6/11/2010, Athens.
14. Synolakis, C.E., N. Kalligeris, E. Flouri, **G. Alexandrakis** & N. Kampanis, "The great Cretan splash up - a coastal disaster preparedness exercise in Greece", *Solution to Coastal Disasters conference, ASCE Conf. Proc. doi:10.1061/41185(417)35*

c. Other

1. Poulos S., **Alexandrakis G.**, Paramana T. and Karditsa A., 2007. Tsunamis affecting Greece in ancient and modern times. *Ocean Challenge*, 15(1), p. 31-37.
2. **Alexandrakis G.** and Poulos S. E. An assessment of sea level trends in Greek waters during the last three decades. 1st ESF MedCLIVAR Summer school, Hydrobiological Station and Aquarium of Rhodes 17-27 September 2008, Island of Rhodes GREECE

3. Flouri E.T., Kaligeris N., **Alexandrakis G.**, Kampanis N.A., Synolakis C.E., 2010. Vulnerability of tsunami waves hazards in the south coast of Crete, 2nd European Federation of Marine Science Conference, 15-16 October 2010, Athens
4. Petrakis S., **Alexandrakis G.** and Poulos S. Investigation of coastline retreat due to anticipated sea-level rise in the case of beach zones exposed to high wave energy. Case study of Almiros Bay, N Crete, Aegean Sea. 2nd European Federation of Marine Science Conference, 15-16 October 2010, Athens, Greece

10. RESEARCH PROJECTS

1. **CLIMATOURISM:** The influence of climatic change on the coastal environment in relation with tourist planning, PostDoc fellowships 2010, Ministry of Education, 2012-14.
2. **AKTAIA:** Development of innovative methods for the quantification and management of the climate change impact on the eastern coast of Crete island, GSRT cooperation, 2011-14. Leader from FORTH-IACM: Dr. N. Kampanis.
3. **POSEIDON:** Earthquake followed by tsunami in Mediterranean Sea, DG Environment, EU, Foundation of research and technology Hellas. Task: Numerical modelling of Tsunami propagation and inundation. Digital elevation modelling with bathymetric and elevation data. Leader from FORTH-IACM: Dr. N. Kampanis.
4. **Coastal Erosional Study at Ag. Ioannis beach,** Lefkada Island, (Project Leader: University of Athens, Faculty of Geology and Geoenvironment, Department of Geography and Climatology, Leader: Ass. Prof. E. Verikiou)
5. **INTEREG-III** "BeachMed-e: BEACHMED-e La gestion stratégique de la défense des littoraux pour un développement soutenable des zones côtières de la Méditerranée, INTERREG IIIC Zone Sud, 2006-2008, 245 KE (PI). Leader from FORTH-IACM: Dr. N. Kampanis.
6. **PYTHGORAS-I project:** «Operational monitoring of environmental (oceanographic / meteorological) conditions in seashore». Department of Geology and Geoenvironment, University of Athens. Leader from FORTH-IACM: Ass. Prof S. Poulos.
7. **MEDPOL** "Laboratory of Technology and Management of Marine Environment of Institute of Marine Biology Crete in the context of program. (Glanumetric analysis of marine sediment samples from coastal regions of Crete and Southern Italy and the statistical analysis and geological interpretation on results of the analysis). Leader: Dr C. Dounas

11. TECHNICAL REPORTS AND SURVEYS

March 2011- June 2011:

Effective management of erosion, protection and recasting of the coastline, east of the Marina site in Rethimnon port; Environmental effects of the coastal protection and restoration project east of the Marina site in Rethimnon port.

February 2011- March 2011:

Mapping the distribution of greenhouse units in Cyprus with satellite imaging using Quickbird and Worldview I images for Plastika Kritis S.A. (private contract).

December 2009 –February 2010:

Mapping the distribution of greenhouse units in Greece with satellite imaging using Quickbird and Worldview I images for Plastika Kritis S.A. (private contract).

May 2009 – March 2010:

Geotechnical surveys on waste management and environmental systems for the Eastern Crete Development Origination. (private contract).

February 2009- March 2009:

Geotechnical investigations for the foundation of 19 wind generators (38 MW) of the Arachnaio aeolian park for C. Rokkas S.A. (private contract).

May 2004 – January 2005:

Technical report for the determination of the coastline position in Zacharo Ilias. University of Athens. Leader: Ass Prof Poulos S.E.

November 2003 - April 2004:

Technical report for the environmental consequences of the Pancretan Stadium in the Ammoudara beach, Heraklion Crete. University of Athens. Leader: Ass Prof S.E. Poulos.

12. SPECIAL SKILLS AND MARINE TIME EXPERIENCE

Open Water diver and scientific diving: Planning and conducting scientific dives (Sea bottom cartography, sediment sampling, and instrument deployment).

Open water sailing license

R/V Philia 2 day Oceanography Cruise in the Cretan Sea. Sea bottom surfacial sediment sampling in May 2010.

R/V Aegeo 10 day Oceanography Cruise in the Aegean Sea. (Poseidon HCMR project) in June 2006

Consulting undergraduate students of the sector of Geography and Climatology of the Department of Geology and Geoenvironment at the University of Athens and postgraduate students of the master of Oceanography of the school of Science in the University of Athens, in matters of field work planning and data analysis and processing.