

CURRICULUM VITAE

PERSONAL DATA

NAME: Emmanuel Vassilakis
BIRTH: April 6th 1971
PLACE OF BIRTH: Athens, GR
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EDUCATION – SCHOLARSHIPS

May 2006 Postdoctoral Associate, at the Department of Earth Atmospheric and Planetary Science, Massachusetts Institute of Technology (M.I.T) for 8 months

May 2006 PhD degree from the Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens) after the defense of the “Study of the tectonic regime of Messara basin (central Crete, Greece) with the aid of remote sensing and geographic information systems”

June 1998 MSc degree in Dynamic, Tectonics & Applied Geology from the Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens)

Mar 1996 Scholarship from the State Scholarship Foundation of Greece for PhD studies in G.I.S. and Remote Sensing

Mar 1995 BSc degree from the Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens)

SEMINARS

June 1997 "ERS SAR and other complementary space borne sensors for hydrological applications" held at ESRIN – ESA, Frascati, Italy

Sept 1995 "Active Faults Seminar" held at Earthquake Protection & Planning Organization of Greece

Feb 1995 "Remote Sensing Applications for Geoscientists" held at the Agricultural University of Athens

LANGUAGES

Greek: Mother tongue
English: Proficiency

WORK EXPERIENCE

Mar 2011– onwards Lecturer of Remote Sensing at the Dpt of Geography & Climatology, Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens), (*hired April 2013*)

May 2002 – April 2013	Researcher at the Dpt of Dynamic, Tectonics & Applied Geology, Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens)
Sept 2000 – Nov 2001	Military service at the National Centre for Space Applications of Greece
Oct 1998 – Sept 1999	Researcher at the Earthquake Protection & Planning Organization of Greece
Apr 1996 – Dec 1996	Researcher at the Institute of Geological & Mineral Exploration of Greece

TEACHING EXPERIENCE

Since 2007 when I returned back from USA after the Post Doc at EAPS/MIT, I teach the following classes at the Faculty of Geology & Geoenvironment of the National & Kapodistrian University of Athens:

- Post graduate classes:
 - “GIS & Remote Sensing” at the Oceanography P.G. Program
 - “Remote Sensing for recording and evaluating natural disasters” at the Prevention and Management of Natural Disasters P.G. Program
 - “Geoinformation & Data Analysis” at the Prevention and Management of Natural Disasters P.G. Program
 - “GIS Applications in Prevention and Management of Natural Disasters” at the Prevention and Management of Natural Disasters P.G. Program
 - “Remote Sensing and Tectonic Maps” at the Dynamic & Tectonics P.G. Program
 - “Geostatistics – Geographic Information Systems” at the Applied Environmental Geology P.G. Program
- Under graduate classes:
 - “Introduction to Geology”, Laboratory exercises
 - “Structural Geology”, Laboratory exercises
 - “Geology of Greece”, Laboratory exercises
 - “Geological & Geoenvironmental Mapping”, Field instructor

LIST OF SELECTED PUBLICATIONS

1. **Vassilakis, E.** & Papadopoulou-Vrynioti, K., 2014. Quantification of deltaic coastal zone change based on multi-temporal high resolution earth observation techniques, *ISPRS International Journal of Geo-Information*, 3(1), 18–28.
2. Bradley, K. E., **Vassilakis, E.**, Hosa, A. & Weiss, B. P. 2013. Segmentation of the Hellenides recorded by Pliocene initiation of clockwise block rotation in Central Greece. *Earth and Planetary Science Letters*, 362, 6–19.
3. Fountoulis, I., Mavroulis, S., **Vassilakis, Emm.**, & Papadopoulou-Vrynioti, K., 2013. Shoreline displacement, drainage diversion in NW Peloponnese (Greece) as a result of the geology, active tectonics and human activity during the last 100ky, *Zeitschrift fur Geomorphologie, Supplementary Issues*, 57(3), 97–123.
4. Papanikolaou, I., Roberts, G., Deligiannakis, G., Sakellariou, A. & **Vassilakis, E.**, 2012. The Sparta Fault Southern Greece: from segmentation and tectonic geomorphology to seismic hazard mapping and time dependent probabilities, *Tectonophysics*, doi:10.1016/j.tecto.2012.08.031
5. **Vassilakis, E.**, Alexopoulos, J., & Zaloumi, E., 2012. Monitoring surface processes along active normal faults with ground LiDaR scanning, 4th EARSeL Workshop on Remote Sensing and Geology Mykonos, Greece, pp.29.
6. **Vassilakis, E.**, Soukis, K. & Lozios, S., 2012. High spectral resolution optical image analysis as a tool for elucidating major extensional structures in detailed geological mapping, 4th EARSeL Workshop on Remote Sensing and Geology Mykonos, Greece, pp.20.

7. **Vassilakis, E.** & Alexopoulos, J., 2012. Recognition of strike-slip faulting on the supra-detachment basin of Messara (central Crete Island) with remote sensing image interpretation techniques, 4th EARSeL Workshop on Remote Sensing and Geology Mykonos, Greece, pp.28.
8. Stournaras, G., Yoxas, G., **Vassilakis, E.** & Nastos, P., 2011. Climate Change Implications on Groundwater in Hellenic Region. In: *Advances in the Research of Aquatic Environment* (edited by Lambrakis, N., Stournaras, G. & Katsanou, K.) 1. Springer, 91–98.
9. **Vassilakis, E.**, Royden, L. and Papanikolaou, D., 2011. Kinematic links between subduction along the Hellenic trench and extension in the Gulf of Corinth, Greece: A multidisciplinary analysis. *Earth and Planetary Science Letters*, 303(1–2): 108–120.
10. **Vassilakis, E.**, 2010. Remote Sensing of Environmental Change in the Antirio Deltaic Fan Region, Western Greece. *Remote Sensing*, 2(11): 2547–2560.
11. Papanikolaou, D. and **Vassilakis, E.**, 2010. Thrust faults and extensional detachment faults in Cretan tectono-stratigraphy: Implications for Middle Miocene extension. *Tectonophysics*, 488(1–4): 233–247.
12. Papanikolaou, D. and **Vassilakis, E.**, 2008. Middle Miocene E–W tectonic horst structure of Crete through extensional detachment faults. *Earth and Environmental Science*, 2(1): 012003.
13. **Vassilakis, E.**, Skourtsos, E. and Kranis, H., 2007. Combination of morphometric indices as a method for the quantification of neotectonic evolution in active areas, 16th DRT Conference. Nuova Serie. Rend. Soc. Geol. It., Milan, pp. 214.
14. Stournaras, G., G. Migiros, G. Stamatis, N. Evelpidou, K. Botsialas, B. Antoniou, and E. **Vassilakis**. 2007. The fractured rocks in Hellas. In *GROUNDWATER IN FRACTURED ROCKS*, eds. J. Krasny and J. Sharp, 133–149: Taylor & Francis.
15. Alexopoulos, J. D., V. Tomara, E. **Vassilakis**, T. Papadopoulos, M. Dassenakis, S. Poulos, N. Voulgaris, S. Dilalos, G. Ghionis, G. Goumas, and E. Pirlis. 2007. Environmental Research of the Korissia Coastal Wetland (Corfu isl., Greece), with the Application of Combined Geological and Geophysical Methods supported by Geographic Information Systems. *Bull. of Geol. Soc. of Gr.* XXXX (4):1892–1903.
16. **Vassilakis, E.**, Royden, L. and Papanikolaou, D., 2006. Extensional neotectonic structures adjacent and sub-parallel to the Hellenic trench, GSA, Philadelphia.
17. **Vassilakis, E.**, Royden, L., Bradley, K. and Papanikolaou, D., 2006. Recognizing Structures Associated with Extensional Detachment Faults using GIS Techniques and Remotely Sensed Data from Greece, AGU, 2006 Fall Meeting, San Francisco.
18. **Vassilakis, E.**, 2006. Study of the tectonic structure of Messara basin, central Crete, with the aid of remote sensing techniques and G.I.S. *PhD Thesis*, National & Kapodistrian University of Athens, Athens, 546 pp.
19. Poscolieri, M., E. Lagios, G. Gregori, G. Paparo, V. Sakkas, I. Parcharidis, I. Marson, K. Soukis, E. **Vassilakis**, F. Angelucci, and S. Vassilopoulou. 2006. Crustal stress and seismic activity in the Ionian archipelago as inferred by satellite and ground-based observations, Kefallinia, Greece. In *Fractal Analysis for Natural Hazards*, eds. G. Cello and B. D. Malamud, 63–78. London: Geological Society, London, Special Publications.
20. Parcharidis, I., Metaxas, C. and **Vassilakis, E.**, 2006. Earth observation data and geographical information system (GIS) techniques for earthquake risk assessment in the western Gulf of Corinth, Greece. *Canadian Journal of Remote Sensing* 32(3): 223–227.
21. Voulgaris, N., E. **Vassilakis**, I. Parcharidis, K. Soukis, and J. D. Alexopoulos. 2003. A GIS based application for seismic risk and operational response support. *Geophysical Research Abstracts* 5:10195.
22. Parcharidis, I., E. **Vassilakis**, G. Cooksley, and C. Metaxas. 2003. Seismically-triggered landslide risk assessment. In *Earthquake Geodynamics: Seismic Case Studies, Advances in Earthquake Engineering*, ed. E. Lekkas, 119–127.
23. Parcharidis, I., E. Lekkas, and E. **Vassilakis**. 2000. SIR–C/X Space Shuttle Images Contribution in Assessment of Flood Risk: The Case of Athens Basin. Paper read at IEEE IGARSS, at Hawaii.
24. Lekkas, E., and E. **Vassilakis**. 1999. Adana Earthquake: Peculiar damage distribution and seismotectonic characteristics. In *Earthquake Resistant Engineering Structures*, eds. G. Oliveto and C. Brebbia, 785–798. Italy: Wit Press.
25. Papanikolaou, D., E. **Vassilakis**, and I. Parcharidis. 1998. Satellite images of short wavelength radiation for structure detection in shallow waters. Case study: Aegina – Agistri islands' area, Saronikos gulf. *Bull. Geol. Soc. of Greece* XXXII (1):105–112.

SELECTED RESEARCH PROJECTS

Have participated in more than 30 research projects and my job description was:

- *designing the GIS and organizing all the field data in a geodatabase*
- *consulting for acquiring and processing remote sensing data*
- 2012 Conservation of Priority Forests and Forest Openings in “Ethnikos Drymos Oitis” and “Oros Kallidromo” of Sterea Ellada – FOROPENFORESTS, LIFE11 NAT/GR/1014. *EUROPEAN COMMISSION*
- 2010 Monitoring for soil protection – SOILPRO, LIFE08 ENV/IT/000428. *EUROPEAN COMMISSION*
- 2010 Local Authorities for Forest Fire Prevention, LIFE08 ENV/GR/00053. *EUROPEAN COMMISSION*
- 2005 **Multidisciplinary Experiment for Dynamic Understanding of Subduction under the Aegean (MEDUSA), U.S. National Science Foundation**
- 1999 **Space Technologies & G.I.S. for Seismic Risk Monitoring on Active Tectonic Structures (STRiM project), European Centre of Earthquake Prevention & Forecasting**
- 1999 **Demonstrating the utility of SAR differential interferometry for the assessment of earthquake risk, E.U. Framework IV, Environment and Climate, Theme 3: Space techniques Applied to Environmental Monitoring**

SKILLS & COMPETENCES

- Have published more than 60 scientific papers in international journals and conference proceedings
- Have participated in a large number of research teams in order to submit research proposals for International and National funding
- User and instructor of the latest versions of scientific software packages used in Geosciences (e.g. ArcGIS, ERDAS Imagine, MatLAB, RockWorks etc.)
- Knowledge of surveying techniques with high accuracy instruments (RTK–DGPS, Ground LiDAR etc.)
- Have been member of the organizational committees for more than 10 scientific events (conferences, workshops, summer schools etc.)
- Have organized and administrate two Computer rooms at the Faculty of Geology & Geoenvironment for the last 8 years
- Have been selected to act as a reviewer to the following journals *BULLETIN of THE GEOLOGICAL SOCIETY of AMERICA, REMOTE SENSING, TECTONOPHYSICS, GEOMORPHOLOGY*
- Have designed and organized the teaching material for the courses I teach at the “University of Athens – Asynchronous eLearning Platform”
- Have provided scientific and technical knowledge to more than 20 BSc, MSc and PhD thesis supervised by Professors at the Faculty of Geology & Geoenvironment, EAPS/MIT, LMU (Germany)
- Webpage design and management (administrator of the Faculty of Geology & Geoenvironment official site)