

CURRICULUM VITAE

PERSONAL DATA

NAME: Emmanuel Vassilakis
BIRTH: March 30th 1971
PLACE OF BIRTH: Athens, GR
MARITAL STATUS: Married with child
ADDRESS: 37 Cambridge str, 01890, Winchester, MA (*current*)
7 Larissis str, 15121, Pefki, Athens, Greece (*permanent*)
TELEPHONE: US-mob +1 781 518 1978, GR-mob. +306977 227786
E-mail: evasilak@mit.edu, evasilak@geol.uoa.gr
Web-page: <http://scholar.uoa.gr/evasilak/>

WORK EXPERIENCE

2016– onwards Ass. Professor of Remote Sensing & Tectonic Geomorphology at the Dpt of Geography & Climatology, Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens)

2011– 2016 Lecturer of Remote Sensing at the Dpt of Geography & Climatology, Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens), (*hired April 2013*)

2006 – 2007 Postdoctoral Associate, at the Department of Earth Atmospheric and Planetary Science, Massachusetts Institute of Technology (M.I.T)

2002 – 2013 Researcher at the Dpt of Dynamic, Tectonics & Applied Geology, Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens)

2000 – 2001 Military service at the National Centre for Space Applications of Greece

1998 – 1999 Researcher at the Earthquake Protection & Planning Organization of Greece

1996 – 1996 Researcher at the Institute of Geological & Mineral Exploration of Greece

EDUCATION – SCHOLARSHIPS

May 2006 PhD degree from the Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens). Dissertation: “Study of the tectonic regime of Messara basin (central Crete, Greece) with the aid of remote sensing and geographic information systems, p.546”.

June 1998 MSc degree in Dynamic, Tectonics & Applied Geology from the Faculty of Geology & Geo-environment (National & Kapodistrian University of Athens). Thesis: “Neotectonic regime of central Aetolo–Akarnania (western Greece), p.91”.

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). Diploma Thesis: “Operation mechanisms of southern Evia springs, p.125”.

SEMINARS

- September 2014** “Satellite InSAR Data: Reservoir Monitoring from Space” held at 20th EAGE – Near Surface Geoscience, 2014
- 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: Native

English: Proficiency

TEACHING EXPERIENCE

Teaching the following courses (or parts of those) at the Faculty of Geology & Geo-environment of the National & Kapodistrian University of Athens:

- Post-graduate:
 - “GIS & Remote Sensing” at the *Oceanography P.G. Program*
 - “Remote Sensing & Air Photo-Interpretation” at the *Geography & Environment P.G. Program*
 - “Field-mapping techniques” at the *Geography & Environment P.G. Program*
 - “Morphotectonics” at the *Geography & Environment P.G. Program*
 - “Remote Sensing for observing and evaluating natural disasters” at the *Prevention and Management of Natural Disasters P.G. Program*
 - “Geoinformation & Geospatial 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:
 - “Remote Sensing”, Tutor and Laboratory exercises
 - “GIS & Introduction to Remote Sensing”, Tutor and Laboratory exercises
 - “Geological & Geo-environmental Field Mapping”, Tutor and Field instructor
 - “Geomorphology”, Laboratory exercises and Field instructor

RESEARCH SKILLS & COMPETENCES

- Published more than 90 scientific papers in peer reviewed journals and conference proceedings (<http://scholar.uoa.gr/evasilak/publications>)
- Provided scientific and technical knowledge to more than 40 BSc, MSc and PhD thesis either under my supervision or as an associate advisor at NKUA, EAPS/MIT or LMU (Germany)
- Given invited talks at several Universities in Greece and abroad (EAPS/MIT, LMU)
- Participated in a large number of research teams in order to submit research proposals for International and National funding

- Selected to act as a reviewer to the following journals *Bulletin of the Geological Society of America*, *Remote Sensing*, *Tectonophysics*, *Geomorphology*, *Zeitschrift für Geomorphologie*
- Member of the organizational committees for more than 10 scientific events (conferences, workshops, summer schools etc.)
- Experience in the processing and interpretation of high and medium resolution satellite images (e.g. WORLDVIEW, QUICKBIRD, IKONOS, LANDSAT, SPOT, SENTINEL etc.)
- Experienced user and instructor of the latest versions of scientific software packages used in Geosciences (e.g. ArcGIS, ERDAS Imagine, Photoscan Pro, MatLAB, RockWorks etc.)
- Knowledge of surveying techniques with high accuracy instruments (RTK-DGPS, Ground LiDAR, UAS etc.)
- Experience in geophysical field data collection with geoelectrical methods (ERT, VES)
- Organized and still administrating two PC labs at the Faculty of Geology & Geoenvironment for the last 15 years
- Designed and organized the teaching material for the courses I teach at the “University of Athens – Asynchronous e-Learning Platform”
- Designed and managed several Webpages (administrator of the Faculty of Geology & Geoenvironment official site)

LIST OF SELECTED PUBLICATIONS

1. Tsokos, A., Kotsi, E., Petrakis, S. & **Vassilakis, Emm.**, 2018. Combining series of multi-source high spatial resolution remote sensing datasets for the detection of shoreline displacement rates and the effectiveness of coastal zone protection measures. *Journal of Coastal Conservation*, DOI: 10.1007/s11852-018-0591-3.
2. Nastos, P.T., **Vassilakis, E.**, Nastos, M.-P.P., Charalampopoulos, I., Matzarakis, A., 2017. Assessment of continuous sky view factor based on ultra-high resolution natural colour images acquired by remotely piloted airborne systems for applications in an urban area of Athens. *International Journal of Remote Sensing*, v. 38, 5814–5829.
3. Diakakis, M., Nikolopoulos, E., Mavroulis, S., **Vassilakis, E.** & Korakaki, E., 2017. Observational evidence on the effects of mega-fires on the frequency of hydrogeomorphic hazards. The case of the Peloponnese fires of 2007 in Greece. *Science of the Total Environment*, v. 592, p. 262–276.
4. Malandri, C., Soukis, K., Maffione, M., Özkaptan, M., **Vassilakis, E.**, Lozios, S., and van Hinsbergen, D.J.J., 2016. Vertical-axis rotations accommodated along the Mid-Cycladic lineament on Paros Island in the extensional heart of the Aegean orocline (Greece), *Lithosphere*, 9(1), 78–99, doi:10.1130/L575.1
5. Fountoulis, I., **Vassilakis, E.**, Mavroulis, S., Alexopoulos, J., Dilalos, S. & Erkeki, A., 2015. Synergy of tectonic geomorphology, applied geophysics and remote sensing techniques reveal the existence of active tectonism in NW Peloponnese (Greece), *Geomorphology*, 237, 52–64
6. Valaouris, A., Poulos, S., Petrakis, S., Alexandrakis, G., **Vassilakis, Emm.** & Ghionis, G. 2014. Processes affecting recent and future evolution of the Xylokastro beach zone (semi-enclosed Gulf of Corinth, Greece), *Global NEST Journal*, 16(4), 773–786
7. Cowling, R., Potts, A., Bradshaw, P., Colville, J., Arianoutsou, M., Ferrier, S., Forest, F., Fyllas, N., Hopper, S., Ojeda, F., Procheş, Ş., Smith, R., Rundel, P., **Vassilakis, Emm.** & Zutta, B. 2014. Variation in plant diversity in Mediterranean Climate Ecosystems: the role of climatic and topographical stability, *Journal of Biogeography*, DOI: 10.1111/jbi.12429
8. **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.
9. 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.
10. Alexopoulos, J., **Vassilakis, E.** & Dilalos, S. 2013. Combined geophysical techniques for detailed groundwater flow investigation in tectonically deformed fractured rocks. *Annals of Geophysics*, 56, 1–7.
11. 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 für Geomorphologie*, Supplementary Issues, 57(3), 97–123.

12. 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*, 597–598, 85–105.
13. **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.
14. **Vassilakis, E.**, 2010. Remote Sensing of Environmental Change in the Antirio Deltaic Fan Region, Western Greece. *Remote Sensing*, 2(11): 2547–2560.
15. 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.
16. 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.
17. 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.
18. 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.
19. Parcharidis, I., E. **Vassilakis**, G. Cooksley, and C. Metaxas. 2003. Seismically–triggered landslide risk assessment. In *Earthquake Geodynamics: Seismic Case Studies*, In *Advances in Earthquake Engineering*, ed. E. Lekkas, 119–127.
20. 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.

SELECTED RESEARCH GRANTS

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

YoC	Title
2013	An investigation of the impact of the climate change on river deltas. Case study: the delta of r. Pinios (Thessaly, Greece) – DAPHNE/THALES, <i>GR Gen. Secr. of Research & Technology</i>
2013	Water resources management of coastal agricultural environments, Resilience of climate change impacts – AGROCLIMA, <i>GR Gen. Secr. of Research & Technology</i>
2013	Synergy for the sustainable development and safe use of Greek tourist beaches – BEACHTOUR, <i>GR Gen. Secr. of Research & Technology</i>
2012	Conservation of Priority Forests and Forest Openings in “Ethnikos Drymos Oitis” and “Oros Kallidromo” of Sterea Ellada – FOROPENFORESTS, <i>LIFE11 NAT/GR/1014, European Commission</i>
2010	Monitoring for soil protection – SOILPRO, <i>LIFE08 ENV/IT/000428, European Commission</i>
2010	Local Authorities for Forest Fire Prevention – FOREST CITIES, <i>LIFE08 ENV/GR/00053, European Commission</i>
2005	Multidisciplinary Experiment for Dynamic Understanding of Subduction under the Aegean – MEDUSA, <i>U.S. National Science Foundation</i>
1999	Space Technologies & G.I.S. for Seismic Risk Monitoring on Active Tectonic Structures (STRiM), <i>European Centre of Earthquake Prevention & Forecasting</i>
1999	Demonstrating the utility of SAR differential interferometry for the assessment of earthquake risk, <i>E.U. Framework IV, Environment and Climate, Theme 3: Space techniques Applied to Environmental Monitoring</i>