

Nikolaos Depountis Assistant Professor of Engineering Geology University of Patras

Short CV



Perosnal Information

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Affiliation:	Department of Geology, University of Patras,
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Education

2000	Ph.D. in Geoenvironmental Engineering at the Departments of Geosciences and Civil
	Engineering, University of Cardiff, Wales, U.K.
1996	M.Sc. in Applied Environmental Geology at the Department of Geosciences, University of Cardiff, Wales, U.K.

1994 Degree in Geology at the Department of Geology, School of Natural Sciences, University of Patras

Employment

2018-today	UNIVERSITY OF PATRAS, Department of Geology, Assistant Professor of Engineering
	Geology, Laboratory of Engineering Geology

- 2015-2018 M.A.RWG, Management Authority of Development Programmes in the Region of Western Greece
- 2006-2015 **REGION OF WESTERN GREECE**, Directorate of Construction and Technical Works
- 2002-2006 MINISTRY FOR THE ENVIRONMENT, PHYSICAL PLANNING AND PUBLIC WORKS, Directorate of Planning and Building Regulations
- 2001-2002 EDAFOSTATIKI S.A., Specific Geotechnical Constructions
- **1996-1999 TERRADAT GEOPHYSICS, UK,** Geophysical site investigations and studies

Teaching and consulting

Modules taught at the undergraduate course, Department of Geology, University of Patras, Greece:

- Engineering Geology (5th semester)
- ➢ Geology of technical works and environment (6th semester)
- Elements of Geotechnical Engineering (7th semester)

Modules taught at the undergraduate course, Department of Civil Engineering, University of Patras, Greece:

- > Geology for civil engineers $(2^{nd} \text{ semester})$
- Geology of technical works and environment (8th semester)

Modules taught at the postgraduate course «Geosciences and Environment: Applied and Environmental Geology», Department of Geology, University of Patras, Greece:

- Engineering Geology and Infrastructures
- Geotechnical investigations and studies
- Landslides and Slope Stability

Modules taught at the undergraduate course, Department of Building's Renovation and Restoration, Technological Education Institution of Patras, Greece:

➢ Geotechnical Engineering in constructions (2007-2009)

Specific Lectures at the undergraduate course, Department of Geology, University of Patras, Greece:

- Engineering Geology (2002-2013)
- ➢ Geology of technical works and Environment (2002-2016)
- Landslide phenomena in terrestrial and marine environment (2016)

Main Research Topics

- Engineering geological-geotechnical investigations and studies for the construction of technical works
- Physical and mechanical properties of soils and rocks
- Erosion modelling on soils and rocks
- Landslides: monitoring, hazard and risk assessment, design of remedial measures
- Restoration and preservation of monuments and caverns
- Geological suitability for urban development and land use planning
- Geoenvironmental Engineering-Environmental Impact Assessment of technical works

Scholarships-Specific research

- **1998-2000** Scholarship as a specific researcher in the European Project "NECER": «Network of European Centrifuges for Environmental Research», at the following institutions:
 - University of Cardiff, Wales & Dundee Scotland, U.K.: Research on capillary phenomena and contaminant transport in saturated and unsaturated soils
 - Laboratorio Nacional de Engenharia Civil (LNEC), Lisbon, Portugal: Construction of sensors for environmental research and contaminant transport detection in saturated and unsaturated soils (PostDoc).
- **1995-1998** Scholarship obtained by the States Scholarships Foundation (S.S.F.) in the field of Engineering Geology-Hydrogeology

Textbooks

- «Applications of Engineering Geology and Geotechnics in the construction of technical works». Sabatakakis N, Koukis G, Depountis N, (in Greek), Patras University Publ. (1st edition 2011, 2nd edition 2015), 131 pages. ISBN: 978-960-530-119-4
- «Applications of Geotechnical Centrifuge for Environmental Research». Depountis N, Publisher VDM Verlag, Dr. Muller, pp.178. ISBN: 978-3-639-24899-9

Research projects

Participation in fifteen (15) European and domestic research projects as a deputy project manager and/or as a member of the scientific research team. Some representative projects are listed below:

- "TRITON: Development of management Tools and diRectives for immediate protection of blodiversity in coasTal areas affected by sea erOsion and establishment of appropriate eNvironmental control systems".
 Programme Interreg V-A Greece-Italy EL-IT 2014 2020 (2018-2020).
- "GEODORY: Development of a recording, monitoring and risk management landslide system with the application of up-to-date geotechnical and satellite methodologies". Development Programme Hpeirous 2014-2020 (2017-2020).
- "Investigation of the origin of the highly quantities of Iron and Manganese at the reservoir of Pineios dam, Ilia Regional Unit, Greece". Pineios Water Supply Union (2018-2019).
- "LANDSLIDE: Landslide Risk Assessment Model for Disaster Prevention and Mitigation". European Commission Directorate-General Humanitarian aid and civil protection (2015 – 2018).
- "LAVMO: Landslide Vulnerability Model based on Remote Sensing technologies". «Thales Research Programme», Development Programme of Education and Lifelong Learning 2007-2014 (2012 – 2014).
- *"Water Leakage Monitoring and Recording at the Mornos Dam inspection tunnel"* Athens Water Supply and Sewerage Company (EYDAP) (2011 2012)
- "Restoration of damages occurred by landslide phenomena at the primary road axis of Chalkida-Lepoura-Kymi, Stomio area, Euboea Regional Unit, Greece". Ministry for the Environment, Physical Planning and Public Works (2010).
- "Geological Suitability Investigation in the urban area of the city of Sami, Cephalonia Island". Municipality of Sami (2005-2006).
- «Geotechnical investigation for the delimitation of Karia and Souli villages, Achaia Regional Unit, Greece"
 (2004-2005)
- "Investigation, evaluation and classification of critical soil parameters according to their polluting susceptibility for the safe disposal of specific liquid wastes after treatment. Determination of the treatment process". Ministry of Health (2003 – 2004).

Selected publications

- Depountis N, Vidali M, Kavoura K, Sabatakakis N (2018). "Soil erosion prediction at the water reservoir's basin of Pineios dam, Western Greece, using the Revised Universal Soil Loss Equation (RUSLE) and GIS". WSEAS Transactions on Environment and Development, 14: 457-463. E-ISSN: 2224-3496.
- Anagnostopolou S, Boumpoulis V, Lampropoulou P, Servou A, Depountis N, Sabatakakis N (2018). "The Behavior of the Highly Weathered and Partially Decomposed Flysch in the Reactivation of Landslide Phenomena in Greece". A Shakoor et al. (eds.), Springer, Slope Stability: Case Histories, Landslide Mapping, Emerging Technologies Volume 1, 119-124. doi: 10.1007/978-3-319-93124-1 15
- Nikolakopoulos K, Kavoura K, Depountis N, Kyriou A, Argyropoulos N, Koukouvelas I, Sabatakakis N (2017): *"Preliminary results from active landslide monitoring using multidisciplinary surveys"* European Journal of Remote Sensing, 50:1, 280-299. doi: 10.1080/22797254.2017.1324741
- Tsiambaos G, Sabatakakis N, Rrondoyanni Th, Depountis N, Kavoura K (2015). "Composite landslides affecting Flysch and Neogene weak rock formations induced by heavy rainfalls". In: Innovations in Applied and Theoretical Rock Mechanics, 13th International Congress of Rock Mechanics, Montreal, Canada, p. 10. ISBN 978-1-926872-25-4.
- Sabatakakis N, Depountis N, Vagenas N (2014). "Evaluation of rockfall restitution coefficients" G. Lollino et al. (eds.) Springer, Engineering Geology for Society and Territory Volume 2, 2023-2016. doi: 10.1007/978-3-319-09057-3_359
- Koukis G, Sabatakakis N, Lainas S, Depountis N, Skias S (2010): "Engineering geological investigation of heavy rainfall induced landslides in wildfire affected areas, western Greece". In: Williams et al. (eds) Geologically Active. Proceedings of the 11th IAEG congress, Auckland, New Zealand, pp 331 – 338. ISBN 978-0-415-60034-7
- Depountis N, Koukis G, Sabatakakis N (2009): "Environmental problems associated with the development and operation of a lined and unlined landfill site. A case study demonstrating two landfill sites in Patras, Greece". Environmental Geology 56(7): 1251 1258. doi: 10.1007/s00254-008-1224-1
- Depountis N, Harris C, Davies MCR, Koukis G, Sabatakakis N (2005): "Application of electrical imaging to leachate plume evolution studies under in-situ and model conditions". Environmental Geology 47(7): 907-914, doi: 10.1007/s00254-004-1219-5
- Depountis N, Harris C, Davies MCR (2001). "An assessment of miniaturised electrical imaging equipment to monitor pollution plume evolution in scaled centrifuge modelling". Engineering Geology 60(1-4): 83-95, doi: 10.1016/S0013-7952(00)00091-0
- Depountis N, Davies MCR, Harris C, Burkhart S, Thorel L, Rezzoug A, Konig D, Merrifield C, Craig WH (2001). "*Centrifuge modelling of capillary rise*". Engineering Geology 60(1-4): 95-106, <u>doi: 10.1016/S0013-7952(00)00092-2</u>
- Lynch RJ, Allersma H, Bezuijen A, Bolton MD, Cartwright M, Davies MCR, Depountis N, Garnier J, Almeida Garrett J, Harris C, Kechavarzi C, Oung O, Silva MG, Santos C, Sentenac P, Soga K, Spiessl S, Taylor RN, Treadaway ACJ, Wststrate F (2001). "Development of sensors, probes and imaging techniques for pollutant monitoring in geo-environmental model tests". International Journal of Physical Modelling in Geotechnics 1(4): 17-27, doi: 10.1680/ijpmg.2001.010402
- Burkhart S, Davies MCR, Depountis N, Harris C, Williams KP (2000). "Scaling Laws for Infiltration and Drainage Tests using a geotechnical centrifuge" In: Garnier et al. (eds), Proceedings of the International Symposium on Physical Modelling and Testing in Environmental Geotechnics, La Baule, France, pp. 191-198. ISBN 2-7208-6050-6.
- Harris C, Davies MCR, Depountis N (2000). "Development of a miniaturised electrical imaging apparatus for monitoring contaminant plume evolution during centrifuge modelling". In: Garnier et al. (eds), Proceedings of the International Symposium on Physical Modelling and Testing in Environmental Geotechnics, La Baule, France, pp. 27-34. ISBN 2-7208-6050-6.

Participation in collective bodies-Charge positions

Member of the Technical Advisory Board of Public Works in the Region of Western Greece
President of the Parental-Guardian Society of the 52 nd primary school of Patras
Member of the Board of the Achaia Regional Unit of public employees
Supervisor of the department of civil planning for emergency calls in Western Greece
Vice-president and member of the Board of the Hellenic Geological Union of public employees