

# Eleni Zagana

*Assistant Professor  
in "Hydrogeology"*



## Personal Information

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## Education

- 2000** **Ph.D. in Hydrogeology and Environment (Dr.rer.nat)** at the Institute of Geology and Palaeontology, University of Wuerzburg, Germany (Institut für Geologie und Paläontologie, Julius-Maximilians-Universität Würzburg). Thesis entitled: "Water balance and chemical transportation in Aliakmon's watershed, in NE Greece" (Original in German "Wasserhaushalt und Stofftransport im Aliakmonasgebiet (Nordwest- Griechenland)").
- 1990** **Degree in Geology** (Diploma - Ptychion - 4 years' study course) at the Department of Geology, Aristoteles University of Thessaloniki, Greece.

## Fellowships - Awards

**1997-1998** **Research Fellowship** for Doctorate Thesis, University of Wuerzburg, Germany

## Professional experience

- 2013-** **Assistant Professor** in "Hydrogeology" in the Department of Geology, University of Patras.
- 2007-2013** **Lecturer** in "Hydrogeology" at the Department of Geology, University of Patras, Greece.
- 2015-** **Adjunct Academic Staff** in Hellenic Open University for Master Thesis supervision
- 2000-2007** **Researcher** in Hellenic Centre for Marine Research, Institute of Inland Waters (2000-2002) and Institute of Oceanography (2002-2007), Athens
- 1998-2000** **Research Associate** in Laboratory of Hydrogeology, Institute of Geology, University of Wurzburg, Germany

## Teaching experience

### **Modules taught at the undergraduate course (Dept. of Geology, University of Patras, Greece):**

- *Hydrochemistry* (OPEN COURSE available in <https://eclass.upatras.gr/courses/GEO360/>; 2007-to date)
- *Disposal of solid and liquid wastes in Geological Environment* (OPEN COURSE available in <https://eclass.upatras.gr/courses/GEO361/>; 2007 – to date)
- *Management and Protection of Water Resources* (2007 – to date)
- *Fieldtrip "Hydrogeology of karst regions, North Peloponnese"* (coordinator; 2017-to date)
- *Fieldtrip "Construction and operation of major technical works: Large hydroelectric dams of West Greece - Water Resources Management in West Greece"* (2012-to date)
- *Fieldtrip "General Geological field trip in Western and Northern Greece"* (2000- to date)

### **Modules taught at the Waste Management postgraduate course (School of Science and Technology, Open Hellenic University)**

- *Natural Environment and Pollution* (2016-2017)

### **Modules taught at the postgraduate course (Dept. of Geology, University of Patras, Greece):**

- *Hydrogeology of geological formations* (2011 – to date)
- *Hydrogeochemistry - Water quality* (2011 – to date)
- *Groundwater protection* (2005-2011)

- *Waste management (2005-2011)*

**Modules taught at the postgraduate course (Dept. of Geology, Aristoteles University of Thessaloniki, Greece):**

- *Water Resources Management (2000-2003)*
- **Undergraduate Thesis Supervision: (Dept. of Geology, University of Patras, Greece):** 48 (38 completed; 10 in progress)
- **Master Thesis Supervision: Dept. of Geology, University of Patras, Greece)** 15 (10 completed; 5 in progress)
- **Master Thesis Supervision: Hellenic Open University:** 10 (8 completed; 2 in progress)
- **Graduate (PhD) Thesis Supervision (main advisor):** 2 (in progress;)

**Textbooks:** Zagana E, 2007. Disposal of solid and liquid wastes in Geological Environment, University of Patras, Press (in Greek).

### Administrative experience

Erasmus Departmental Coordinator (2014 – to date)

### Reviewing Activities

- Scientific Journal Reviewer (2007-Present). Reviewer manuscripts submitted to Journals: Environmental Earth Sciences, Hydrological Processes, Environmental Management, Water Resources Management and Conference Proceedings

### Participation in selected research projects

- *“Durchfluß- und Sorptionsverhalten ausgewählter geologischer Einheiten gegenüber organischen und anorganischen Modellsubstanzen”*. Scientific Coordinator: Prof. Peter Udluft, Institut für Geologie, Universität Würzburg (1995-1997)
- *“Groundwater Recharge in the Eastern Mediterranean”*. European research project EC-INCO-DC, code ERBIC18-CT97-0413. Scientific Coordinator: Prof. Peter Udluft, Institut für Geologie, Universität Würzburg. (1998-2000)
- *“Environmental Impact of EU Policies on Acheloos River: Watershed Description and Data Collection”*. European research project, Scientific Coordinator: Dr. Nikolaos Skoulikidis, Hellenic Centre for Marine Research (2001-2002)
- *“TWReferenceNET: Management and sustainable development of protected transitional waters”* European research project INTERREG IIIB & GADSES, Hellenic Centre for Marine Research (2004-2006)
- *“StymphaCore – reconstructing the environmental history of North Peloponnesus”* German research project, Scientific Coordinator, Prof. Ingmar Unkel, Institute of Ecosystem Research, University of Kiel, Germany (2010-2013)
- *“D.473 INTEREG EAA-IT INNOVANET, International Centre of Competences for Innovation in the Mediterranean countries”* Scientific Coordinator: Prof. P. Groumbos, Dept. of Computer and Electrical Engineering, University of Patras
- *“LIFE DEBAG: Integrated information and awareness campaign for the reduction of plastic bags in the marine environment (LIFE14 GIE/GR/001127”* Scientific Coordinator, Prof. G. Papatheodorou, Department of Geology, University of Patras, (2015-2018)
- *“E01 Transformations in early Greek Societies and Landscapes”*, German research project, Scientific Coordinator, Prof. Ingmar Unkel, Institute of Ecosystem Research, University of Kiel, Germany (2016-2020)
- *“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).

## Publications

### A. In journals (peer reviewed)

- **Zagana, E** & Udluft, P. (1999): Wasserhaushalt im Aliakmonas-Gebiet; Bilanzierung und Modellierung.- Hydrogeologie und Umwelt, 18, pp. 9-1 – 9-31, University Würzburg.
- **Zagana, E.**, Kuells, C. & Udluft, P. (2000): Hydrochemie und Wasserhaushalt des Aliakmonas, Nordgriechenland.- Vom Wasser, 94; 29-39, WILEY, Weinheim
- Stamatis G. & **Zagana E.** (2005): Hydrogeological and hydrochemical characteristics of consolidated rocks in Thessaly basin / Central Greece. - Hydrogeologie und Umwelt, 33, pp. 1-11, University Würzburg.
- G. Stamatis, N. Lambrakis, D. Alexakis & E. **Zagana** (2006): Groundwater quality in Mesogea basin in eastern Attica (Greece), Hydrological Processes, Volume 20, Issue 13, Pages: 2803-2818, WILEY.
- C. Petalas, N. Lambrakis & E. **Zagana** (2006): Hydrochemistry of waters of volcanic rocks – The case of the volcanosedimentary rocks of Thrace, Greece, Water, Air, & Soil Pollution, 169(1-4): 375-394 Springer.
- Pisinaras, C. Petalas, V.A. Tsihrintzis & E. **Zagana** (2006): A groundwater flow model for water resources management in the Ismarida plain, North Greece, Environmental Modeling and Assessment, 12 (2), pp. 75-89.
- **Zagana, E.**, Kuells, C., Udluft, P. & C. Constantinou (2007): Methods of groundwater recharge estimation in eastern Mediterranean – A Water balance model application in Greece, Cyprus and Jordan, Hydrological Processes, Volume 21, Issue 18, Pages: 2405-2414, WILEY.
- **Zagana, E.**, Obeidat, M., Kuells, Ch. & Udluft, P. (2007): Chloride, hydrochemical and isotopes methods of groundwater recharge estimation in eastern Mediterranean – A case study in Jordan, Hydrological Processes, Volume 21, Issue 16, Pages: 2112-2123, WILEY.
- Stamatis G., Parpodis K., Filintas A., **Zagana E.** (2011): Groundwater quality, nitrate pollution and irrigation environmental management in the Neogene sediments of an agricultural region of central Thessaly in Greece, Environmental Earth Sciences, 64: 1081-1105.
- Champidi P., Stamatis G. & **Zagana, E.** (2011): Groundwater quality assessment and geogenic and anthropogenic effect estimation in Erasinos Basin (E. Attica), European Water, 33:11-27. E.W Publications.
- N. Lambrakis, E. **Zagana** & K. Katsanou (2012): Geochemical patterns and origin of alkaline thermal waters in Central Greece (Platystomo and Smokovo areas), Environmental Earth Sciences 69, 2475–2486.
- Christian Heymann, Oliver Nelle, Walter Dorfler, **Helen Zagana**, Norbert Nowaczyk, Jibin Xue, Ingmar Unkel (2013): Late Glacial to mid-Holocene palaeoclimate development of Southern Greece inferred from the sediment sequence of Lake Stymphalia (NE- Peloponnese, Greece). Quaternary International 302, 42-60.
- N. Charizopoulos, **E. Zagana** & G. Stamatis (2016): Hydrogeochemical investigations in a drained lake area: The case of Xynias Basin (Central Greece), Environmental Monitoring and Assessment, 188-480.
- N. Charizopoulos, A. Psilovikos & E. **Zagana** (2017): A lumped conceptual approach for modeling hydrogeological processes: The case of Scopia catchment area, Central Greece, Environmental Earth Sciences 76:632.
- N. Charizopoulos, **E. Zagana** & A. Psilovikos (2018): Assessment of natural and anthropogenic impacts in groundwater, utilizing multivariate statistical analysis and inverse distance weighted interpolation modeling: The case of a Scopia basin (Central Greece) Environmental Earth Sciences, 77:380.
- Eleni – Anna Nanou & **Eleni Zagana** (2018): Groundwater vulnerability to pollution map for karst aquifer protection (Ziria karst system, Southern Greece), Geosciences (Switzerland), 8(4), 125.
- Kakavas, M. Nikolakopoulos, K., Kyriou A & **Zagana, E.** (2018): Assessment of freely available DSMs for automatic karst feature detection, Arabian Journal of Geosciences, 11-338.
- **B. In Books-Monographs (as articles or chapters)**
  - Külls C., **Zagana E.** & Udluft P. (1998) Integrated evaluation of quantitative and qualitative groundwater potential in the Eastern Mediterranean Region, in T. R. Weaver & C. R. Lawrence: Groundwater Sustainable Solutions, S. 683-688.
  - Katsanou, K, Nikolaou E., Siavalas, G., **Zagana, E.** and Lambrakis, N. (2009): Hydrogeological conditions and water quality of the karstified formations of Louros basin, Epirus, Greece, IHP-VII Series on Groundwater No 2: 97-106, UNESCO 2009.
  - **Zagana, E.**, Tserolas, P., Floros, G., Katsanou, K. and Andreo, B (2011): First outcomes from groundwater recharge estimation in evaporate aquifer in Greece with the use of APLIS method, Advances in the Research of Aquatic Environment, Environmental Earth Sciences, Part 1, 89-96.

- I. Unkel, C. Heymann, O. Nelle, **E. Zagana** (2011) : Climatic influence on Lake Stymphalia during the last 15 000 years, Advances in the Research of Aquatic Environment, Environmental Earth Sciences, Part 2, 75-82.
- E. Photos-Jones, **E. Zagana** and P. Roumelioti (2016): The ayiasmata (holy springs) of Lemnos (NE Greece): an archaeo- hydrogeological study. Chapter 32 in BAR (British Archaeological Reports) S2780, pp 221-229.