



Nikitas Mylopoulos (PhD)

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Date and place of birth

Born in Thessaloniki, Greece, on December 31, 1965.

Graduate and postgraduate studies

- Diploma in Civil Engineering, Faculty of Engineering, Aristotle University of Thessaloniki (AUTH), 1989.
- PhD in Water Resources Management and Engineering, AUTH, 1994: "Stochastic Simulation and Decision Analysis in the Groundwater Resources Management, under Risk Conditions".

Previous Employment:

- Research fellow, Div. of Hydraulics & Environmental Engineering, AUTH, (1989-1998).
- Research fellow, Porous Media Laboratory of CNRS, Bordeaux, France, for two six-month periods in 1989 and 1991.
- Associate in a consulting hydraulic engineering company (1991-1998).
- Head of the Liaison Office for the EC's RTD projects in AUTH (1996-1999)
- Lecturer, Dept. of Civil Engineering, University of Thessaly (1999-2003)
- Assistant Professor, Dept. of Civil Engineering, University of Thessaly (2003-2009)
- Associate Professor, Dept. of Civil Engineering, University of Thessaly (2009-2015)
- Professor, Dept. of Civil Engineering, University of Thessaly (2015-today)

Research Activities

The major fields of my involvement in research are:

- Water Resources Engineering and Management
- Integrated Water Resources Management Plans
- Groundwater Modelling - Transport in Porous Media
- Combined Simulation and Optimization Techniques in aquifer protection and restoration.
- Risk-based decision modelling.
- Hydrological and Hydrogeological Data Bases.

Research projects

I have participated, either as a coordinator, either as a partner, in **45** research projects financed by the European Community, Organizations and by Greek Ministries. Between them:

1. "Combined use of mathematical simulation and optimization techniques for the planning of groundwater remediation projects", Greek General Secretariat of Research and Technology, 1991-1993, (Participation as main researcher)

2. "Mathematical simulation models of groundwater flow and pollutant transport", Greek General Secretariat of Research and Technology 1992-1993, (Participation as main researcher)
3. "Development of a National Hydrological, Hydrogeological and Meteorological Data Bank - HYDROSCOPE" STRIDE, 1992-1994, (Participation)
4. "Decision Theory in Groundwater Systems Management", Greek General Secretariat of Research and Technology, 1993-1995, (Participation as main researcher)
5. "Protection and Management of the river Gallikos" Municipality of Nea Ionia, Greece, (Participation).
6. "Sediment transport and water quality assessment in the Lake Kastoria watershed" Municipality of Kastoria, Greece, 1998-1999, (Participation).
7. "Preparatory assessment and Sustainable Management of the water resources in the Wider Hydrological Watershed of the city of Volos, Greece" Water Utility of Volos, 2000-2001, (Coordinator)
8. "Investigation of exploitation scenarios of deep aquifer of Lake Koronia" – Region of Central Macedonia, Greece, 2000-2002, (Participation as main researcher).
9. "Integrated Water Management of Transboundary Catchments (TRANSCAT)" - Energy, Environment and Sustainable Development 5th Framework E.U. RTD Program. 2001-2004 (Participation)
10. "Innovative models of critical key indicators as planning and decision support for sustainable rural development and integrated cross-boarder regional management in former iron curtain areas based on north to south European reference studies" - Energy, Environment and Sustainable Development 5th Framework E.U. RTD Program, 2003-2005 (Participation).
11. «Pytheas: ERA-MORE Network: Organisation and operation of the National Network of Researchers' Mobility Centers», E.U. 2004-2006 (Participation).
12. "Database development of surface water and groundwater measurements and evaluation of irrigation works in Thessaly" Region of Thessaly, 2003-2005, (Coordinator).
13. "Water transportation from Acheloos River and the Integrated Water Resources Management in the Region of Thessaly", Region of Thessaly, 2004-2005, (Coordinator).
14. "Development of integrated methodology for sustainable development of urban water demand using econometrics and hydroinformatics" – Greek General Secretariat of Research and Technology. PYTHAGORAS II National Research Program co-funded by E.U. 2005-2006 (Coordinator).
15. "OpenMI-LIFE Project" LIFE-Environment under the policy area "Sustainable management of ground water and surface water management", 2006-2009.
16. "Explorative study for the development of a reservoir in the location of Gavroneri Stomiou". Municipality of Evrimenon (Coordinator), 2009.
17. "Sustainable Use of Irrigation Water in the Mediterranean Region (SIRRIMED)" – FP7-KBBE-2009-3 – Proposal Reference Number: FP7-245159. (Participation), **2010-2013**.
18. "Reconnaissance study of land subsidence in Karla Municipality". Municipality of Karla. (participation) 2010.
19. "Development of an integrated system for monitoring and management of water resources quantity and quality of rural basins under climate change conditions. Application in Lake Karla watershed (HydroMentor)", Greek General Secretariat of Research and Technology, Program "Cooperation-Action I", (Scientific Responsible) 2011-2014.
20. "Climate change implications in Thessaly and Western Greece", Ministry of Environment and Climate Change, (Coordinator), 2011.

21. "Archimides, Development of an integrated monitoring, simulation and Water Resources Management system in Karla Watershed" (Participation), 2010-2014

Teaching Activities

Since my first appointment to the School of Technology, AUTH, in 1989, until today, as a Prof. in the University of Thessaly I have been involved in the teaching of the following subjects:

- Water Resources Engineering and Management
- Groundwater Hydraulics
- Water Supply Networks
- Sewage Networks
- Hydro systems simulation
- Risk Analysis and Decision Making in Water Systems

I have also taught courses related to water resources management and environmental protection in several seminars and supervised over 40 diploma and postgraduate Thesis, all relevant to my teaching subjects above.

PhD supervisor

I have successfully supervised the following PhD Thesis:

"Integrated approach of water demand management in the residential sector. Full cost recovery according to water framework directive" by C. Fafoutis (2008)

"Groundwater Resources management under conditions of uncertainty: The value of information in environmentally degraded aquifers" by P. Sidiropoulos (2014)

and currently supervising:

"Development of an Integrated Decision Support System, through a single hydro-economic model and Multicriteria Analysis for the sustainable water resources management: The case of Lake Karla Watershed" A. Alamanos, and

"Assessment and prediction of the impact of climate change on groundwater resources" G. Tziatzios

Other scientific activities

I am member of the following Organisations:

Technical Chamber of Greece, Association of Civil Engineers, Hellenic Hydrotechnical Association, European and International Water Resources Association, (EWRA & IWRA), International Association of Hydraulic Engineering and Research (IAHR), International Association of Hydrological Sciences (IAHS), European Geosciences Union and American Geophysical Union (AGU)

Currently I am a reviewer for the Journals:

- Journal of Water International (IWRA)
- Environmental Modeling and Software (Elsevier Journal)
- Journal of Water Resources Management (Springer)
- Journal of Earth System Science (Indian Academy of Sciences – Springer)
- Journal of Spatial Hydrology (American Spatial Hydrology Union)
- Agricultural Water Management (Elsevier Journal)

and the Conferences:

- International Conference “Protection and Restoration of the Environment” (biannually)
- International Conference «HELECO», Technical Chamber of Greece, (biannually)
- International Conference of EWRA (biannually)
- National Conference of the Hellenic Water Resources Association (biannually)
- National Conference of the Hellenic Hydro technical Association (biannually)

Published Papers

Publications in International Referred Journals

1. J. Mylopoulos, **N. Mylopoulos** and P. Latinopoulos, «A decision model for the remediation design of an aquifer” **Hydrotechnika**, 3.1., σελ. 7-24, (1993) (in greek).
2. P. Latinopoulos, N. Theodosiou, Y. Mylopoulos and **N. Mylopoulos**, “A Sensitivity Analysis and Parametric study for the evaluation of the optimal management of a contaminated aquifer”, **Water Resources Management**, Vol. 8, pp 11-31, (1994).
3. P. Latinopoulos, **N. Mylopoulos** and Y. Mylopoulos, “Risk-based Decision Analysis in the Design of Water Supply Projects”, **Water Resources Management**, Vol. 11, pp 263-281, (1997).
4. **N. Mylopoulos**, Y. Mylopoulos and N. Theodosiou, “A joint risk-based decision analysis and stochastic optimization methodology in the remediation design of a contaminated groundwater resource in Greece”, **Canadian Water Resources Journal**, Vol. 24, No. 3, pp 187 – 201, (1999).
5. Y. Mylopoulos, N. Theodosiou and **N. Mylopoulos**, “A Stochastic Optimization Approach in the Remediation Design of an Aquifer under Hydrogeologic Uncertainty”, **Water Resources Management**, Vol. 13, pp 335-351, (1999).
6. Y. Mylopoulos and **N. Mylopoulos**, “Economic Incentives in Sustainable Water Management: A Risk – Based Decision Analysis Approach for Determining Groundwater Pollution Charges Under Uncertainty”, **Global Nest: the International Journal**, Vol. 1, No. 3, pp 205-215, (1999).
7. V. Hrisantou, **N. Mylopoulos**, D. Tolikas and Y. Mylopoulos, “Simulation Modelling of Runoff, Groundwater Flow and Sediment Transport into Kastoria Lake, Greece”, **Water Resources Management**, 17: 223-242, (2003).
8. **N. Mylopoulos**, «Integrating the Environmental Cost in the Design of Hydraulic Projects: an aquifer restoration case study”, **Technical Chronicles**, (2005).
9. **N. Mylopoulos** and A. Mentis: “A sustainable framework for Water Resources Management in an Urban Watershed: the case of Volos, Greece”, **Urban Water**, Elsevier Science B.V., Vol.2,1, pp 13-22 (2005).
10. E. Kolokytha and **N. Mylopoulos** “Evaluating Demand Management Aspects of Urban Water Policy. The city of Volos case, Greece”, **Water, Air & Soil Pollution: Focus (WAFO) Journal**, Kluwer Academic Publishers, 4 (4-5): 263-277, (2004).
11. E. Paleologos, T. Avaniidou, and **N. Mylopoulos**: «Stochastic Analysis and Prioritization of the Influence of Parameter Uncertainty on the Predicted Pressure Profile in Heterogeneous, Unsaturated Soils», **Journal of Hazardous Material**, (2005).

12. **N. Mylopoulos**, Y. Mylopoulos, N. Veranis and D. Tolikas, "Groundwater Modeling and Management in a complex Lake-Aquifer System", **Water Resources Management**, Springer, (1573-1650, Online First, <http://dx.doi.org/10.1007/s11269-006-9025-3>) (2006)
13. Loukas, A., **N. Mylopoulos**, and L. Vasiliades (2005). "A Modeling System for the Evaluation of Water Resources Management Scenarios in Thessaly, Greece." **Water Resources Management**, Springer, (21:1673-1702) (2007).
14. **N. Mylopoulos**, Y. Mylopoulos, E. Kolokytha and D. Tolikas: "Integrated Water Management Plans for the Restoration of Lake Koronia, Greece", **Water International Journal**, IWRA eds., Volume 32, Number 5, Pg. 709-727, Supplemental Issue 2007 (2008).
15. **N. Mylopoulos**, E. Kolokytha, A. Loukas and Y. Mylopoulos "Agricultural and Water Resources Development in Thessaly, Greece in the framework of new European Union Policies", **International Journal of River Basin Management**, IAHR eds., 7:1, 73-89, (2008).
16. D. Vagiona and **N. Mylopoulos**, "Water Price Elasticity And Public Acceptability On Conservation Options In The City Of Volos – Greece" **International Journal of Sustainable Development and Planning**, Vol. 4, Issue 4, (2009).
17. **N. Mylopoulos** and P. Sidiropoulos, "Groundwater management under hydrogeologic uncertainty in an overexploited aquifer", *Global Groundwater Resources and Management: Selected Papers from International Geological Congress Oslo (Norway)*, 2008 Editor B.S. Paliwal, Publisher: "**Scientific Publishers (India)**" (2009)
18. D. Vagiona, **N. Mylopoulos** and C. Fafoutis «Impact of urban water pricing on future water demand: a 'socioeconomic' study in Greece». **Journal of Environmental Science and Engineering**, Volume 4, No 10, (Serial Number 35) (2010).
19. **N. Mylopoulos** and C. Fafoutis, "Full cost recovery in the urban residential sector according to the European Water Framework Directive", **Urban Water**, Taylor & Francis, Vol. 9, Issue 3 (2012).
20. P. Sidiropoulos, T. Papadimitriou, Z. Stabouli, A. Loukas, **N. Mylopoulos** and Ifigenia Kagalou, ""Past, present and future concepts for conservation of the re-constructed lake Karla (Thessaly- Greece)" **Fresenius Environmental Bulletin**, Vol 21/ No 10a, 3027 – 3034, (2012)
21. P. Sidiropoulos, **N. Mylopoulos** and A. Loukas, "Optimal Management of an Overexploited Aquifer under Climate Change: The Lake Karla Case", **Water Resources Management**, Springer, Vol 27, Issue 6, Pp 1635-1649 (2013).
22. **N. Mylopoulos**, C. Fafoutis, K. Christopoulos and I. Tsihchlis, «Willingness to pay for residential water using Stated Preference Analysis: the case of Volos, Greece" **Fresenius Environmental Bulletin**, Volume 23/ No 11, 2728-2734. (2014)
23. **N. Mylopoulos** and P. Sidiropoulos,, "A stochastic optimization framework for the restoration of a depleted aquifer", **Hydrological Sciences Journal**, IAHS Press, DOI: 10.1080/ 02626667.2014.993646, (2014)
24. D. Latinopoulos, **N. Mylopoulos** and C. Fafoutis, "Using a market-type allocation system to confront water scarcity: an inter-district approach in Greece", **Global Nest**, Issue 4, 653-666 (2014)
25. P. Sidiropoulos, **N. Mylopoulos** and A. Loukas "Stochastic Simulation and Management of an Over-exploited Aquifer using an Integrated Modeling System." **Water Resources Management**, 29(3), 929-943 (2015).

26. **N. Mylopoulos**, "Assessment of urban water full cost under the conditions of an economic crisis", **European Water Journal**, 49: 89-105, 2015 (2015).
- A. Loukas, P. Sidiropoulos, **N. Mylopoulos**, L. Vasiliades & K. Zagoriti, "Assessment of the Effect of Climate Variability and Change and Human Intervention to Lake Karla Aquifer" **European Water Journal**, (2015).
27. P. Sidiropoulos & **N. Mylopoulos**, "The value of hydraulic conductivity information for the optimal restoration of an over-exploited aquifer" **Procedia Environmental Sciences**, Elsevier, 25c:227-234, doi:10.1016/j.proenv.2015.04.031 (2015).
28. P. Sidiropoulos, **N. Mylopoulos** and A. Loukas. «Reservoir-aquifer combined optimization for groundwater restoration: The case of Lake Karla watershed, Greece», **Water Utility Journal**, 12:17-26. (2016)
29. Alamanos A., Xenarios S., **Mylopoulos N.**, Stalnacke P., Hydro-economic modeling and management with limited data: the case of Lake Karla Basin, Greece, **European Water Journal**, issue 54:3-18. (2016)
30. J. Tzabiras, L. Vasiliades, P. Sidiropoulos, A. Loukas and **N. Mylopoulos**. «Evaluation of Water Resources Management Strategies to Overturn Climate Change Impacts on Lake Karla Watershed», **Journal of Water Resources Management** 30:5819-5844. doi: 10.1007/s11269-016-1536-y. (2016)
31. Alamanos A., Xenarios S., **Mylopoulos N.**, Stalnacke P. "Integrated Water Resources Management in Agro-economy using linear programming: the case of Lake Karla Basin, Greece." **European Water Journal** issue 60:41-47. (2017).
32. **Mylopoulos N.**, Fafoutis C., Sfyris S., Alamanos A. "Impact of water pricing policy and climate change on future water demand in Volos", Greece. **European Water Journal**, issue 58:473-479. (2017).
33. Alamanos **A.**, **Mylopoulos N.**, Loukas A., Gaitanaros D. An integrated Multicriteria Analysis tool for evaluating water resources management strategies. **Water** 10(12), 1795. doi:10.3390/w10121795. (2018).
34. Alamanos A., Latinopoulos D., Xenarios S., **Mylopoulos N.** "A new hydroeconomic modeling approach for Lake Karla Watershed, in Central Greece." Submitted to **International Journal of Water (IJW)** (under review). (2019).
35. Sfyris S., Alamanos A., Fafoutis C., **Mylopoulos N.** "Quantifying the impact of different climate conditions and water pricing policies on future water balance in Volos, Greece." Submitted to **Water Utility Journal** on 30/11/2017 (under review) (2019).
36. Alamanos A., Latinopoulos D., Papaioannou G., **Mylopoulos N.** Integrated hydro-economic modeling for sustainable water resources management in data-scarce areas. **Water Resources Management** (under review). (2019).

37. Alamanos A., Latinopoulos D., Xenarios S., Tziatzios G., **Mylopoulos N.**, Loukas A., "Combining Hydro-economic and Water Quality Modeling for Optimal Management of a Degraded Watershed" Journal of Hydroinformatics, (accepted for publication) (2019).

Additionally **102** publications in National and International Conference Proceedings and Collective Editions.

Citation Index

210 references (SCOPUS) and 510 (Google Scholar).