



Chrysi Laspidou

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📍 Work: Civil Engineering Department, University of Thessaly, Pedion Areos, 38334 Volos (Greece)

ABOUT ME

I am a Professor at the Civil Engineering Department, University of Thessaly in Greece. I am the Vice-President of Collaboration at [Water Europe](#) and a member of the Steering Committee of the Water-Energy-Food Nexus [Knowledge Action Network](#) at [Future Earth](#). The Chair of the COST Action [NEXUSNET](#) and the coordinator of the H2020 project [ARSINOE](#), I have spent 15 years in the USA, where I conducted all my studies and obtained my degrees from reputable institutions. I have published over 70 articles in scientific journals and conference proceedings and my work is widely recognized with currently about 3700 citations, according to [Google Scholar](#).

EDUCATION AND TRAINING

Ph.D.

Northwestern University [01/09/1996 – 30/06/2003]

Address: Evanston, IL (United States)

Level in EQF: EQF level 8

Environmental Biotechnology, Mathematical modeling

Dissertation title: Modeling heterogeneous biofilms including active biomass, inert biomass and extracellular polymeric substances

Post Graduate Studies

School of Natural Resources, Ohio State University [01/09/1994 – 30/06/1996]

Address: Columbus, OH (United States)

Level in EQF: EQF level 8

Ecological Engineering

Fate of Phosphorus in Constructed Wetlands

M.Sc.

Department of Civil and Environmental Engineering, University of Texas at Austin [01/09/1992 – 31/12/1993]

Address: Austin, TX (United States)

Level in EQF: EQF level 7

M.Sc. thesis title: Cyclone performance for the separation of solids from supercritical water oxidation effluents

B.Sc.

Department of Mechanical Engineering, University of Texas at Austin [01/09/1989 – 30/06/1992]

Address: Austin, TX (United States)

Level in EQF: EQF level 6

Specialization on material science in engineering

Diploma thesis title: Design of a Rotating Biological Contactor for the treatment of gasoline-containing waste

Undergraduate Studies

Industrial Engineering Department, Wichita State University [01/09/1988 – 30/06/1989]

Address: Wichita, KS (United States)

Level in EQF: EQF level 6

Freshman Engineering Courses

ACHIEVEMENTS

Honors and Awards

1. Coordinator of [ARSINOE](#) H2020 EU project--a 15-million project with 41 partners.
2. Chair of the European Scientific Network on the Water-Energy-Food Nexus [NexusNet](#).
3. Vice-President of Collaboration at [Water Europe](#), a Brussels-based organization that is the voice and promoter of water-related innovation and RTD in Europe.
4. Winner of 1st prize at the European Commission's [EUvsVirus](#) Hackathon with the [Sewers4Covid](#) solution, an event focusing on battling the COVID-19 pandemic with about 9,000 participants from all over the world that took place on April 24-26, 2020. The event received a lot of publicity from Greek press (an example is shown [here](#)).
5. Keynote speaker at the [United Nations Water Conference 2023](#) in New York City--March 22 to 24, 2023.
6. Co-author of book by the European Commission, Joint Research Centre, The gateway to the future of the Mediterranean : water, energy, food and the environment, Publications Office of the European Union, 2023, <https://data.europa.eu/doi/10.2760/38718>
7. Part of the Greek enterprise delegation led by the Minister of Development, visited the UAE and DubaiExpo2020, on February 2022.
8. Reviewer of Water Chapter in **IPCC report AR6**.
9. Associate Editor [Frontiers in Environmental Science Environmental Systems Engineering](#)
10. Member of the Steering Committee of the [Water-Energy-Food Nexus Knowledge Action Network at Future Earth](#)
11. Member of Africa-Europe Foundation Working Group on Climate Change (<https://www.africaeuropfoundation.org/people/>)
12. Member of the Steering Committee of the [Nexus Project Cluster](#)
13. Expert to assist with the scoping of the **nexus assessment of the interlinkages among biodiversity, water, food and health in the context of climate change** for the Multidisciplinary Expert Panel of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services ([IPBES](#)).
14. Co-organizer of a side event and speaker at the [COP24](#) in Katowice, Poland.
15. Vice-chair of the Department of Civil Engineering and the Department of Environment at the University of Thessaly, Greece (2018-2020)
16. Guest editor in journals: Journal of Environmental Management, Frontiers in Environmental Science, Water MDPI, Sustainability MDPI, and Toxicological and Environmental Chemistry Journal
17. Vice-Chair of International conference on Environmental Management, Engineering, Planning and Economics [CEMEPE](#).
18. Invited speaker in numerous events around the world
19. Candidate Woman of the Year under the "Scientist" category by the Life & Style magazine (2004).

Research Projects

[Current]

- Highly experienced in running EU- and National-funded scientific projects. Indicatively the following projects are mentioned:

1) Duration: 9/2023–8/2028

Programme: Horizon Europe

Title: Mainstreaming transformative nature-based solutions to enhance resilience to climate change--**NATALIE**

Position: Work Package Leader

Budget: 18,152,930 €

2) Duration: 09/2022-08/2026

Programme: EU HORIZON EUROPE

Title: The biodiversity nexus: Transformative Change for Sustainability—[BIONEXT](#)

Position: Work Package Co-leader

Budget: 5,000,000 €

3) Duration: 10/2021-09/2025

Programme: EU HORIZON2020

Title: Climate resilient – regions through systemic solutions and innovations—[ARSINOE](#)

Position: Project Coordinator

Budget: 15,643,021 €

4) Duration: 09/2021-08/2025

Programme: EU HORIZON2020

Title: Facilitating the next generation of effective and intelligent water-related policies utilizing artificial intelligence and reinforcement learning to assess the water-energy-food-ecosystem nexus—[NEXOGENESIS](#)

Position: Work Package Leader

Budget: 4,998,625 €

5) Duration: 9/2021-9/2025

Programme: EU COST

Title: Network on water – energy – food nexus for a low – carbon economy in Europe and beyond—[NEXUSNET](#)

Position: Action Chair

Budget: 760,000 €

6) Duration: 5/2021-4/2024

Programme: EU: HORIZON2020 – PRIMA - Water Management

Title: Mediterranean water management solutions for a sustainable agriculture supplied by an Online collaborative platform—[MAGO](#)

Position: Work Package Leader

Budget: 2,500,000 €

7) Duration: 3/2021-2/2023

Programme: EU: Erasmus+ Strategic partnership

Title: Serious games for digital readiness of water education—[SMARTEN](#)

Position: Work Package Leader

Budget: 247,331 €

8) Duration: 2/2019–1/2023

Programme: Horizon 2020 EU-India Water Co-Operation

Title: LOw-cost innovative Technology for water quality monitoring and water resourcesmanagement for Urban and rural water Systems in India—[LOTUS](#)

Position: Work Ppackage Leader

Budget: 2,500,237 €

9) Duration: 1/2019–12/2021

Programme: FP7 ERANETMED II

Title: Integrated nanotechnologies for sustainable sensing water and sanitation—**NanoSWS**

Position: Work Package Leader

Budget: 662,792 €

10) Duration: 3/2017–2/2021

Programme: Horizon2020 MarieSkłodowska-CurieResearch and Innovation StaffExchanges (RISE)

Title: Holistic Surface Water and Groundwater Management for Sustainable Cities–[Water4Cities](#)

Position: Coordinator

Budget: 1,242,000 €

11) Duration: 6/2016–5/2020

Programme: Horizon 2020

Title: Sustainable Integrated Management FOR the NEXUS of water-land-food-energy-climate for a resource-efficient Europe--[SIM4NEXUS](#)

Position: Work Package Leader

Budget: 7,895,658 €

12) Duration: 2/2014–1/2017

Programme: FP7

Title: Integrated Support System for EfficientWater Usage and ResourcesManagement—**ISS-EWATUS**

Position: Work Package Leader

Budget: 3,377,632 €

13) Duration: 12/2013–8/2017

Programme: FP7

Title: Sensing toxicants in Marine waters makes Sense using biosensors—[SMS](#)

Position: Work Package Leader

Budget: 5,559,819 €

Publications

A list of scientific publications can be found at my [ORCID](#) and [Google Scholar](#) profiles (a total of ca. **3,700** citations)

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One of my publications that came out of my PhD has about **1,500** citations to date.

Books

1. Charalambous, B. and **Laspidou, C.** 2017. Dealing with the Complex Interrelation of Intermittent Supply and Water Losses, IWA Publishing, London.

List of most recent Journal Publications

1. **Laspidou, C.** and Ziliaskopoulos, K., 2022. Using System Dynamics Modelling to visualize the effects of resource management and policy interventions on biodiversity at a regional scale. *Ecological Indicators*, 145, p.109630, <http://doi.org/10.1016/j.ecolind.2022.109630>
2. Ramos, E.P., Kofinas, D., Brouwer, F., Sundin, C. and **Laspidou, C.S.**, Operationalizing the Nexus approach: insights from the SIM4NEXUS project. *Frontiers in Environmental Science*, p.766, <https://doi.org/10.3389/fenvs.2022.787415>
3. Ioannou, A.E. and **Laspidou, C.S.** Resilience Analysis Framework for a Water–Energy–Food Nexus System Under Climate Change. *Frontiers in Environmental Science*, **2022**, 342. <https://doi.org/10.3389/fenvs.2022.820125>
4. Papadopoulou, C.-A.; Papadopoulou, M.P.; **Laspidou, C.** Implementing Water-Energy-Land-Food-Climate Nexus Approach to Achieve the Sustainable Development Goals in Greece: Indicators and Policy Recommendations. *Sustainability* **2022**, 14, 4100. <https://doi.org/10.3390/su14074100>
5. Spyropoulou, A.E.; Lazarou, Y.G.; Sapalidis, A.A.; **Laspidou, C. S.** Geochemical modeling of mercury in coastal groundwater. *Chemosphere* **2022**, 286, Part 1; <https://doi.org/10.1016/j.chemosphere.2021.131609>.
6. Ioannou, A.E, Creaco, E.F, **Laspidou, C.S.** Exploring the Effectiveness of Clustering Algorithms for Capturing Water Consumption Behavior at Household Level. *Sustainability*. **2021** Jan;13(5):2603. <https://doi.org/10.3390/su13052603>
7. Malago, A.; Comero, S.; Bouraoui, F.; Kazezyilmaz-Alhan, C.M.; Gawlik, B.M.; Easton, P.; **Laspidou, C.** An analytical framework to assess SDG targets within the context of WEF nexus in the Mediterranean region. *Resources, Conservation and Recycling* **2021**, 164:105205. <https://doi.org/10.1016/j.resconrec.2020.105205>.
8. **Laspidou, C.**, Mellios, N., Spyropoulou, A., Kofinas, D., Papadopoulou, M. (2020) Systems thinking on the resource nexus: Modeling and visualisation tools to identify critical interlinkages for resilient and sustainable societies and institutions, *Science of the Total Environment* **717**, 137264, <https://doi.org/10.1016/j.scitotenv.2020.137264>
9. Mellios, N.K.; Moe, S.J.; **Laspidou, C.S.** Using Bayesian hierarchical modelling to capture cyanobacteria dynamics in Northern European lakes. *Water Research* **2020**, 186:116356. <https://doi.org/10.1016/j.watres.2020.116356>.
10. Kofinas, D.; Ulanczyk, R.; **Laspidou, C.S.** Simulation of a Water Distribution Network with Key Performance Indicators for Spatio-Temporal Analysis and Operation of Highly Stressed Water Infrastructure. *Water* **2020**, 12, 1149. <https://doi.org/10.3390/w12041149>

WORK EXPERIENCE

Assistant/Associate/ Full Professor

Civil Engineering Department, University of Thessaly [01/09/2003 – Current]

Address: Pedion Areos, 38334 Volos (Greece)

Website: www.civ.uth.gr

Business or sector: Education

- **Professor**, Dept. of Civil Engineering (May 2019-today)
 - **Associate Professor**, Dept. of Civil Engineering, (May 2015- May 2019)
 - **Assistant Professor**, Dept. of Civil Engineering, (adjunct from 2003-2010 and appointed from 2010-2015).
- During this time, she has held joint appointments in the following departments:
- a) Dept. of Civil Engineering (lecturer, 2003-2006)
 - b) Dept. of Mechanical Engineering (2003-2010)
 - c) Dept. of Urban Planning (2007-2013)
 - d) Department of Biochemistry and Biotechnology (2003-2005)

Teaching and research / Major fields:

Water & Information and Communication Technologies—ICT; Smart water and Hydroinformatics; Critical Infrastructure Protection; Infrastructure Resilience under Climate Change; Digital Water; Resource Nexus

Informatics; Mathematical modelling of aquatic ecosystems, Ecological engineering, Virtual water / water footprint calculation

Affiliate Professor

ATHENA Research Center, Sustainable Development Unit [15/09/2021]

Address: (Greece)

Country: Greece

Website: <https://www.athenarc.gr/en/sdu>

Name of unit or department: Sustainable Development Unit - **Business or sector:** Education

Conducting and managing research on sustainability funded by EU, national and private sources

Affiliate Faculty member

Centre for Research and Technology-Hellas [20/08/2013 – 31/01/2017]

Address: 6th km Charilaou Thermis Rd., 57001 Thermi, Thessaloniki (Greece)

City: Thessaloniki

Country: Greece

Website: <https://www.iti.gr/>

Name of unit or department: Information Technologies Institute - **Business or sector:** Education

Conducted and managed research on smart water, wireless sensors networks and data modelling. Attracted funding through EU funded research projects.

LANGUAGE SKILLS

Mother tongue(s): **Greek**

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

French

LISTENING B1 READING C1 WRITING B2

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

Excellent communication skills gained through my long experience as a Professor and as a Project Manager, since I coordinate or participate as work package leader in several EU and National funded projects. I have acted as the vice-chair of international conferences, I have been invited as a keynote speaker and I have presented in numerous occasions and variable audiences.