




## Chrysi Laspidou


Nationality: Greek

### CONTACT

 Civil Engineering Department,  
University of Thessaly, Pedion  
Areos, null  
38334 Volos, Greece

 [laspidou@uth.gr](mailto:laspidou@uth.gr)

 (+30) 2421074147

 [https://orcid.org/  
0000-0001-5225-4844](https://orcid.org/0000-0001-5225-4844)

[https://scholar.google.gr/  
citations?  
user=6kqbk3UAAAAJ&hl=en](https://scholar.google.gr/citations?user=6kqbk3UAAAAJ&hl=en)

[http://www.civ.uth.gr/en/  
people/professors/37-english/  
people-bios/191-laspidou-hrisi](http://www.civ.uth.gr/en/people/professors/37-english/people-bios/191-laspidou-hrisi)

Twitter: [https://twitter.com/  
CLaspidou](https://twitter.com/CLaspidou)

Instagram: [https://  
www.instagram.com/  
claspidou/](https://www.instagram.com/claspidou/)

LinkedIn: [https://  
www.linkedin.com/in/chrysi-  
laspidou-3055b491/](https://www.linkedin.com/in/chrysi-laspidou-3055b491/)

Skype: laspidou

### ABOUT ME

**Chrysi Laspidou** is a Professor at the Civil Engineering Department, University of Thessaly in Greece. She is the Vice-President of Research and Technology at Water Europe and a member of the Steering Committee of the Water-Energy-Food Nexus Knowledge Action Network at Future Earth. She is the Chair of the COST Action [NEXUSNET](#) and the coordinator of the H2020 project [ARSINOE](#). She has spent 15 years in the USA, where she conducted all her studies and obtained her degrees from reputable institutions. She has published over 70 articles in scientific journals and conference proceedings and her work is widely recognized with currently over 3380 citations, according to Google Scholar.

### WORK EXPERIENCE

**01/09/2003 – CURRENT**

#### Assistant/Associate/ Full Professor

Civil Engineering Department, University of Thessaly

- **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

Education / [www.civ.uth.gr](http://www.civ.uth.gr) / Pedion Areos, 38334, Volos, Greece

**15/09/2021 – Greece**

#### Affiliate Professor

ATHENA Research Center, Sustainable Development Unit

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

Sustainable Development Unit / Education / [https://  
www.athenarc.gr/en/sdu](https://www.athenarc.gr/en/sdu) / Greece

**20/08/2013 – 31/01/2017 – Thessaloniki, Greece**

#### Affiliate Faculty member

Centre for Research and Technology-Hellas

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

Information Technologies Institute / Education / [https://www.iti.gr/  
/ 6th km Charilaou Thermis Rd., 57001, Themi, Thessaloniki, Greece](https://www.iti.gr/)

## EDUCATION AND TRAINING

01/09/1996 – 30/06/2003 – Evanston, IL, United States

### Ph.D.

Northwestern University

Environmental Biotechnology, Mathematical modeling

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

EQF level 8

01/09/1994 – 30/06/1996 – Columbus, OH, United States

### Post Graduate Studies

School of Natural Resources, Ohio State University

Ecological Engineering

Fate of Phosphorus in Constructed Wetlands

EQF level 8

01/09/1992 – 31/12/1993 – Austin, TX, United States

### M.Sc.

Department of Civil and Environmental Engineering, University of Texas at Austin

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

EQF level 7

01/09/1989 – 30/06/1992 – Austin, TX, United States

### B.Sc.

Department of Mechanical Engineering, University of Texas at Austin

Specialization on material science in engineering

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

EQF level 6

01/09/1988 – 30/06/1989 – Wichita, KS, United States

### Undergraduate Studies

Industrial Engineering Department, Wichita State University

Freshman Engineering Courses

EQF level 6

## LANGUAGE SKILLS

**MOTHER TONGUE(S):** Greek

**OTHER LANGUAGE(S):**

English

**Listening**  
C2

**Reading**  
C2

**Spoken  
production**  
C2

**Spoken  
interaction**  
C2

**Writing**  
C2

---

French

**Listening**  
B1

**Reading**  
C1

**Spoken  
production**  
B1

**Spoken  
interaction**  
B1

**Writing**  
B2

---

## ORGANISATIONAL SKILLS

### Leadership Positions

- Vice President of Research and Technology at Brussels-based organization Water Europe (<https://watereurope.eu/>)
- Vice-chair of the Department of Civil Engineering and the Department of Environment at the University of Thessaly, Greece (2018-2020)
- Project Coordinator of Horizon2020 project [ARSINOE](#)
- Chair of the COST Action CA20138 [NEXUSNET](#)
- Project Coordinator of Horizon2020 project [Water4Cities](#)
- Currently responsible for a team of 11 people (Ph.D. candidates, Post-docs, and other Academic and Administrative staff)

## 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.

## ACHIEVEMENTS

### Research Projects

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

**1) Duration:** 09/2022-08/2026

**Programme:** EU HORIZON EUROPE

**Title:** The biodiversity nexus: Transformative Change for Sustainability—**BIONEXT**

**Position:** Work Package Co-leader

**2) Duration:** 10/2021-09/2025

**Programme:** EU HORIZON2020

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

**Position:** Project Coordinator

**3) 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 (WEFE) nexus—[NEX OGENESIS](#)

**Position:** Work Package Leader

**4) Duration:** 9/2021-9/2025

**Programme:** EU COST

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

**Position:** Action Chair

**5) Duration:** 5/2021-4/2024

**Programme:** EU: HORIZON2020 – PRIMA - Water Management

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

**Position:** Work Package Leader

**6) Duration:** 3/2021-2/2023

**Programme:** EU: Erasmus+ Strategic partnership

**Title:** Serious gaMES for digitAl Readiness of waTer EducatiON—[SMARTEN](#)

**Position:** Work Package Leader

**7) Duration:** 2/2019–1/2023

**Programme:** Horizon 2020 SC5-12-2018 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

**8) Duration:** 1/2019–12/2021

**Programme:** FP7 ERANETMED II

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

**Position:** Work Package Leader

**9) 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

**10) Duration:** 6/2016–5/2020

**Programme:** Horizon 2020 research and innovation programme Water-2b

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

**Position:** Work Package Leader

**11) Duration:** 2/2014–1/2017

**Programme:** FP7—ICT—2013—11

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

**Position:** Work Package Leader

**12) Duration:** 2/2014–7/2015

**Programme:** APIΣTEIAII

**Title:** MAtheMatical Modeling of Microcystis aeruginosa as a Key-player in Lakes under Reconstruction–LAKEREMAKE

**Position:** Scientific Coordinator

**13) Duration:** 12/2013–8/2017

**Programme:** FP7—OCEAN—2013

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

**Position:** Work Package Leader

## Honors and Awards

- Associate Editor [Frontiers in Environmental Science Environmental Systems Engineering](#)
- Member of the Steering Committee of the [Water-Energy-Food Nexus Knowledge Action Network at Future Earth](#)
- Member of the Steering Committee of the [Nexus Project Cluster](#)
- Guest editor in journals: Journal of Environmental Management, Frontiers in Environmental Science, Water MDPI, Sustainability MDPI, and Toxicological and Environmental Chemistry Journal
- Vice-Chair of International conference on Environmental Management, Engineering, Planning and Economics [CEMEPE](#).
- Member of Africa-Europe Foundation Working Group on Climate Change (<https://www.africaeuropefoundation.org/people/>)
- Reviewer of Water Chapter in IPCC report AR6.
- 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)
- Invited speaker in numerous events around the world

## Publications

A list of scientific publications can be found at my [ORCID](#) and [Google Scholar](#) profiles.

### Books

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

### Indicative list of Journal Publications

1. 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>

2. 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>

3. 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>

4. 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>.

5. 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>

6. 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>.
7. **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>
8. 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>.
9. 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>
10. **Laspidou, C.S.** and Rittmann, B.E., 2002. A unified theory for extracellular polymeric substances, soluble microbial products, and active and inert biomass. *Water research*, 36(11), pp.2711-2720.
11. **Laspidou, C.S.** and Rittmann, B.E., 2002. Non-steady state modeling of extracellular polymeric substances, soluble microbial products, and active and inert biomass. *Water Research*, 36(8), pp. 1983-1992.