

Short CV

Eirini Aivazidou, Ph.D., M.Sc., M.Eng.

Assistant Professor

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Summary

Dr Eirini Aivazidou is an Assistant Professor in Engineering Economics and Management at the Department of Industrial Engineering and Management of the International Hellenic University (Greece). She worked as a Postdoctoral Researcher at the Centre of Research and Technology – Hellas (Greece) and the University of Bologna (Italy). She served as an Adjunct Lecturer and a Researcher at the Aristotle University of Thessaloniki (Greece). She holds a M.Eng. in Mechanical Engineering, an M.Sc. in Transportation Engineering, and a Ph.D. in Sustainable Supply Chain Management (Onassis Foundation Scholar). Dr Aivazidou has published more than 30 research articles in peer-reviewed journals, including *Academy of Management Perspectives*, *European Journal of Operational Research*, and *Journal of Cleaner Production*.

Academic Career

- 03/2022-onwards **Assistant Professor** in *Engineering Economics and Management*, Department of Industrial Engineering and Management, International Hellenic University, Greece
- 03/2020-02/2022 **Postdoctoral Researcher** in *Digital Agriculture*, Institute for Bio-Economy and Agri-Technology, Centre for Research and Technology – Hellas, Greece
- 03/2020-09/2021 **Adjunct Lecturer**, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece
- 02/2018-02/2021 **Postdoctoral Researcher** in *Circular Economy*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece
- 06/2018-12/2019 **Research Fellow** in *System Dynamics*, Department of Computer Science and Engineering, Alma Mater Studiorum – University of Bologna, Italy
- 10/2013-06/2018 **Teaching Assistant**, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece
- 02/2014-05/2018 **Research Assistant** in *Supply Chain Management*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece

Education

- 2013-2017 **Ph.D.** in *Supply Chain Water Footprint Management*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece (With Honors)

- 2014-2015 **M.Sc.** in *Transportation Systems Design, Planning, and Management*, Department of Civil Engineering, Aristotle University of Thessaloniki, Greece (8.68/10, With Honors)
- 2008-2013 **M.Eng.** (Diploma) in *Mechanical Engineering*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece (9.06/10, With Honors, Ranked 1st)

Journal Publications

1. **Aivazidou, E.**, Tsolakis, N., Mollona, E. (2025), “Circular Economy 5.0 on Its Way: A Digital Sustainability Transition”, *Academy of Management Perspectives*, In Press. DOI: [10.5465/amp.2023.0161](https://doi.org/10.5465/amp.2023.0161)
2. Mallioris, P., **Aivazidou, E.**, Bechtsis, D. (2024), “Predictive maintenance in Industry 4.0: A systematic multi-sector mapping”, *CIRP Journal of Manufacturing Science and Technology*, Vol. 50, pp. 80-103. DOI: [10.1016/j.cirpj.2024.02.003](https://doi.org/10.1016/j.cirpj.2024.02.003)
3. Cunico, G., **Aivazidou, E.**, Mollona E. (2024), “Investigating Supply and Demand in European Cohesion Policy: Micro-Foundations of Macro-Behaviours”, *Journal of the Knowledge Economy*, Vol. 50, No. 2, pp. 8148-8178. DOI: [10.1007/s13132-023-01430-6](https://doi.org/10.1007/s13132-023-01430-6)
4. **Aivazidou, E.**, Tsolakis, N. (2023), “Water Management and Environmental Engineering: Current Practices and Opportunities”, *Sustainability*, Vol. 15, No. 15, pp. 11944. DOI: [10.3390/su151511944](https://doi.org/10.3390/su151511944)
5. **Aivazidou, E.**, Tsolakis, N. (2023), “Transitioning towards human-robot synergy in agriculture: A systems thinking perspective”, *Systems Research and Behavioral Science*, Vol. 40, No. 3, pp. 536-551. DOI: [10.1002/sres.2887](https://doi.org/10.1002/sres.2887)
6. Tsolakis, N., Goldsmith, A.T., **Aivazidou, E.**, Kumar, M. (2023), “Microalgae-based circular supply chain configurations using Industry 4.0 technologies for pharmaceuticals”, *Journal of Cleaner Production*, Vol. 395, pp. 136397. DOI: [10.1016/j.jclepro.2023.136397](https://doi.org/10.1016/j.jclepro.2023.136397)
7. Bialas, C., Bechtsis, D., **Aivazidou, E.**, Achillas, C., Aidonis, D. (2023), “A Holistic View on the Adoption and Cost-Effectiveness of Technology-Driven Supply Chain Management Practices in Healthcare”, *Sustainability*, Vol. 15, No. 6, pp. 5541. DOI: [10.3390/su15065541](https://doi.org/10.3390/su15065541)
8. Bialas, C., Bechtsis, D., **Aivazidou, E.**, Achillas, C., Aidonis, D. (2023), “Digitalization of the Healthcare Supply Chain through the Adoption of Enterprise Resource Planning (ERP) Systems in Hospitals: An Empirical Study on Influencing Factors and Cost Performance”, *Sustainability*, Vol. 15, No. 4, pp. 3163. DOI: [10.3390/su15043163](https://doi.org/10.3390/su15043163)
9. Syrmos, E., Sidiropoulos, V., Bechtsis, D., Stergiopoulos, F., **Aivazidou, E.**, Vrakas, D., Vezinias, P., Vlahavas, I. (2023), “An Intelligent Modular Water Monitoring IoT System for Real-Time Quantitative and Qualitative Measurements”, *Sustainability*, Vol. 15, No. 3, pp. 2127. DOI: [10.3390/su15032127](https://doi.org/10.3390/su15032127)
10. Cunico, G., **Aivazidou, E.**, Mollona E. (2022), “Decision-making traps behind low regional absorption of Cohesion Policy funds”, *European Policy Analysis*, Vol. 8, No. 4, pp. 439-466. DOI: [10.1002/epa2.1162](https://doi.org/10.1002/epa2.1162)
11. **Aivazidou, E.**, Aidonis, D., Tsolakis, N., Achillas, C., Vlachos, D. (2022), “Wine Supply Chain Network Configuration under a Water Footprint Cap”, *Sustainability*, Vol. 14, No. 15, pp. 9494. DOI: [10.3390/su14159494](https://doi.org/10.3390/su14159494)

12. Cunico, G., **Aivazidou, E.**, Mollona E. (2022), “System Dynamics Gamification: A Proposal for Shared Principles”, *Systems Research and Behavioral Science*, Vol. 39, No. 4, pp. 723-733. DOI: [10.1002/sres.2805](https://doi.org/10.1002/sres.2805)
13. **Aivazidou, E.** (2022), “Water Management in Agriculture and Industry: Challenges, Trends, and Opportunities”, *Sustainability*, Vol. 14, No. 1, pp. 66. DOI: [10.3390/su14010066](https://doi.org/10.3390/su14010066)
14. **Aivazidou, E.**, Baniyas, G., Lampridi, M., Vasileiadis, G., Anagnostis, A., Papagergiou, E., Bochtis, D. (2021), “Smart Technologies for Sustainable Water Management: An Urban Analysis”, *Sustainability*, Vol. 13, No. 24, pp. 13940. DOI: [10.3390/su132413940](https://doi.org/10.3390/su132413940)
15. Cunico, G., **Aivazidou, E.**, Mollona E. (2021), “Beyond financial proxies in Cohesion Policy inputs’ monitoring: A system dynamics approach”, *Evaluation and Program Planning*, Vol. 89, pp. 101964. DOI: [10.1016/j.evalprogplan.2021.101964](https://doi.org/10.1016/j.evalprogplan.2021.101964)
16. Tagarakis, A., Benos, L., **Aivazidou, E.**, Anagnostis, A., Kateris, D., Bochtis, D. (2021), “Wearable Sensors for Identifying Activity Signatures in Human-Robot Collaborative Agricultural Environments”, *Engineering Proceedings*, Vol. 9, No. 1, pp. 5. DOI: [10.3390/engproc2021009005](https://doi.org/10.3390/engproc2021009005)
17. **Aivazidou, E.**, Politis, I. (2021), “Transfer Function Models for Forecasting Maritime Passenger Traffic in Greece under an Economic Crisis Environment”, *Transportation Letters: The International Journal of Transportation Research*, Vol. 13, No. 8, pp. 591-607. DOI: [10.1080/19427867.2020.1744224](https://doi.org/10.1080/19427867.2020.1744224)
18. **Aivazidou, E.**, Tsolakis, N. (2021), “Investigating dynamic interconnections between organic farming adoption and freshwater sustainability”, *Journal of Environmental Management*, Vol. 294, pp. 112896. DOI: [10.1016/j.jenvman.2021.112896](https://doi.org/10.1016/j.jenvman.2021.112896)
19. Cunico, G., **Aivazidou, E.**, Mollona, E. (2021), “Building a dynamic theory of citizens’ awareness of European Cohesion Policy interventions”, *European Journal of Operational Research*, Vol. 289, No. 2, pp. 758-773. DOI: [10.1016/j.ejor.2020.07.017](https://doi.org/10.1016/j.ejor.2020.07.017)
20. Rodias, E., **Aivazidou, E.**, Achillas, C., Aidonis, D., Bochtis, D. (2021), “Water-Energy-Nutrients Synergies in the Agrifood Sector: A Circular Economy Framework”, *Energies*, Vol. 14, No. 1, pp. 159. DOI: [10.3390/en14010159](https://doi.org/10.3390/en14010159)
21. **Aivazidou, E.**, Cunico, G., Mollona, E. (2020), “Beyond the EU Structural Funds’ Absorption Rate: How Do Regions Really Perform?”, *Economies*, Vol. 8, No. 3, pp. 55. DOI: [10.3390/economies8030055](https://doi.org/10.3390/economies8030055)
22. Cunico, G., **Aivazidou, E.**, Mollona, E. (2020), “European Cohesion Policy performance and citizens’ awareness: A holistic System Dynamics framework”, *Investigaciones Regionales – Journal of Regional Research*, Vol. 46, pp. 131-162. DOI: [10.38191/iirr-jorr.20.007](https://doi.org/10.38191/iirr-jorr.20.007)
23. **Aivazidou, E.**, Tsolakis, N. (2020), “A Water Footprint Review of Italian Wine: Drivers, Barriers, and Practices for Sustainable Stewardship”, *Water*, Vol. 12, No. 2, pp. 369. DOI: [10.3390/w12020369](https://doi.org/10.3390/w12020369)
24. Tsolakis, N., **Aivazidou, E.**, Srai, J.S. (2019), “Sensor Applications in Agrifood Systems: Current Trends and Opportunities for Water Stewardship”, *Climate*, Vol. 7, No. 3, pp. 44. DOI: [10.3390/cli7030044](https://doi.org/10.3390/cli7030044)
25. **Aivazidou, E.**, Tsolakis, N., Vlachos, D., Iakovou, E. (2018), “A water footprint management framework for supply chains under green market behaviour”, *Journal of Cleaner Production*, Vol. 197, pp. 592-606. DOI: [10.1016/j.jclepro.2018.06.171](https://doi.org/10.1016/j.jclepro.2018.06.171)

26. Vlachos, D., **Aivazidou, E.** (2018), "Water Footprint in Supply Chain Management: An Introduction", Sustainability, Vol. 10, No. 6, pp. 2045. DOI: [10.3390/su10062045](https://doi.org/10.3390/su10062045)
27. Tsolakis, N., Srai, J.S., **Aivazidou, E.** (2018), "Blue Water Footprint Management in a UK Poultry Supply Chain under Environmental Regulatory Constraints", Sustainability, Vol. 10, No. 3, pp. 625. DOI: [10.3390/su10030625](https://doi.org/10.3390/su10030625)
28. **Aivazidou, E.**, Tsolakis, N. (2017), "Assessing the Water Footprint of Pets: the Case of Small Breed Dogs", Chemical Engineering Transactions, Vol. 57, pp. 517-522. DOI: [10.3303/CET1757087](https://doi.org/10.3303/CET1757087)
29. **Aivazidou, E.**, Tsolakis, N., Iakovou, E., Vlachos, D. (2016), "The emerging role of water footprint in supply chain management: A critical literature synthesis and a hierarchical decision-making framework", Journal of Cleaner Production, Vol. 137, pp. 1018-1037. DOI: [10.1016/j.jclepro.2016.07.210](https://doi.org/10.1016/j.jclepro.2016.07.210)
30. **Aivazidou, E.**, Tsolakis, N., Vlachos, D., Iakovou, E. (2015), "Water Footprint Management Policies for Agrifood Supply Chains: A Critical Taxonomy and a System Dynamics Modelling Approach", Chemical Engineering Transactions, Vol. 43, pp. 115-120. DOI: [10.3303/CET1543020](https://doi.org/10.3303/CET1543020)
31. **Aivazidou, E.**, Iakovou, E., Vlachos, D., Keramydas, C. (2013), "A Methodological Framework for Supply Chain Carbon Footprint Management", Chemical Engineering Transactions, Vol. 35, pp. 313-318. DOI: [10.3303/CET1335052](https://doi.org/10.3303/CET1335052)

Selected Research Projects

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| 2024-onwards | "Sustainable Machining of Aerospace Commodities" (acronym: SCORE), International Hellenic University, Greece (Deputy Principal Investigator)
<u>Funder</u> : Eurostars - Eureka Network |
| 2020-2022 | "Human-Robot Synergetic Logistics for High Value Crops" (acronym: SYNERGIE), Centre for Research and Technology – Hellas, Greece (Researcher)
<u>Funder</u> : Hellenic Foundation for Research and Innovation, Greece |
| 2018-2019 | "Perception and Evaluation of Regional and Cohesion Policies by Europeans and Identification with the Values of Europe" (acronym: PERCEIVE), Alma Mater Studiorum – University of Bologna, Italy (Researcher)
<u>Funder</u> : European Commission (Horizon 2020) |
| 2014-2015 | "Innovation Capacity Building by Strengthening Expertise and Research in the Design, Planning and Operations of Green Agrifood Supply Chains" (acronym: GREEN-AgriChains), Aristotle University of Thessaloniki, Greece (Researcher)
<u>Funder</u> : European Commission (FP7) |
| 2013-2014 | "Feasibility Study for the Establishment of Dual Initial Vocational Education and Training in Schools and Enterprises in the Transport and Logistics Sectors in Greece", Aristotle University of Thessaloniki, Greece (Researcher)
<u>Funder</u> : Federal Institute for Vocational Education and Training, Germany |

Teaching Activity

- 12/2024-01/2025 Life-long learning courses: *“Circular Economy and Sustainability”*, *“Energy Savings”*, International Hellenic University, Greece
- 2022-onwards Postgraduate course: *“Production Systems”*, Department of Industrial Engineering and Management, International Hellenic University, Greece
- 2022-onwards Undergraduate courses: *“Linear Algebra”*, *“Micro-/Macroeconomics”*, *“Multivariate Calculus”*, *“Entrepreneurship”*, Department of Industrial Engineering and Management, International Hellenic University, Greece
- 2020-2021 Undergraduate courses: *“Multivariate Statistics”*, *“Reliability and Maintenance”*, *“Forecasting Techniques”*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece
- 2013-2018 Undergraduate courses: *“Operations Research”*, *“Inventory Management”*, *“Supply Chain Management”*, *“Simulation”*, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece

Academic Committees

- 01/2025-onwards Member, Advisory Committee on the Ph.D. Thesis: *“Circular economy and urban ecosystems: Sustainability and assessment on environmental, social, and governance issues”*, Department of Supply Chain Management, International Hellenic University, Greece
- 09/2024-onwards Academic Counselor, Department of Industrial Engineering and Management, International Hellenic University, Greece
- 06/2024-onwards Member, Advisory Committee on the Ph.D. Thesis: *“Quality in education through the application of generalized systems theory”*, Department of Industrial Engineering and Management, International Hellenic University, Greece
- 12/2023-onwards Member, Committee for the Equal Access of Students with Disabilities and Special Educational Needs, International Hellenic University, Greece
- 10/2022-onwards Supervisor of Diploma Theses, Department of Industrial Engineering and Management, International Hellenic University, Greece

Awards

- Financial Support (as award for scientific novelty and contribution) for paper’s open-access publication [DOI: [10.1016/j.cirpj.2024.10.013](https://doi.org/10.1016/j.cirpj.2024.10.013)] (2024)
Funder: Onassis Scholars’ Association, Greece
- Ph.D. Scholarship for excellent research proposal (2014-2017)
Funder: Alexander S. Onassis Public Benefit Foundation, Lichtenstein

- Honorary Award for excellent undergraduate studies' performance (2017)
Funder: Technical Chamber of Greece
- Scholarship for excellent undergraduate studies' performance (2014)
Funder: Aristotle University of Thessaloniki, Greece
- National Scholarship and Award for excellent undergraduate studies' performance (2009-2010)
Funder: State Scholarships Foundation of Greece

Memberships

- Technical Chamber of Greece [Registration No.: 135064]
- Association of Mechanical-Electrical Engineers of Northern Greece
- Onassis Scholars' Association, Greece

Languages

- Greek (Native language)
- English (C2) – ECPE Michigan
- Italian (C2) – CELI 5