

Short CV

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

Associate Professor

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Summary

Dr Eirini Aivazidou is an Associate Professor in Engineering Economics and Management (specialized in Production and Operations Management) at the Department of Industrial Engineering and Management of the Faculty of Engineering of IHU (Greece). She worked as a Postdoctoral Researcher at the Centre of Research and Technology – Hellas (CERTH; Greece) and the Alma Mater Studiorum – University of Bologna (UNIBO; Italy). She served as an Adjunct Lecturer and a Researcher at the Aristotle University of Thessaloniki (AUTH; Greece). She holds a M.Eng. in Mechanical Engineering, an M.Sc. in Transportation Systems, and a Ph.D. in Sustainable Supply Chain Management (Onassis Foundation Scholar). Dr Aivazidou has published more than 30 research articles in international peer-reviewed journals, including *Academy of Management Perspectives* (ABS List: 4-star), *European Journal of Operational Research* (4-star), and *Journal of Environmental Management* (3-star).

Academic Career

- 06/2026-onwards **Associate Professor** in *Production and Operations Management*, Department of Industrial Engineering and Management, Faculty of Engineering, IHU, Greece
- 03/2022-06/2026 **Assistant Professor** in *Engineering Economics and Management*, Department of Industrial Engineering and Management, Faculty of Engineering, IHU, 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, Faculty of Engineering, Aristotle University of Thessaloniki, Greece
- 02/2018-02/2021 **Postdoctoral Researcher** in *Circular Economy*, Department of Mechanical Engineering, Faculty of 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, Faculty of Engineering, Aristotle University of Thessaloniki, Greece
- 02/2014-05/2018 **Research Assistant** in *Supply Chain Management*, Department of Mechanical Engineering, Faculty of Engineering, Aristotle University of Thessaloniki, Greece

Education

- 2013-2017 **Ph.D.** in *Supply Chain Water Footprint Management*, Department of Mechanical Engineering, Faculty of Engineering, Aristotle University of Thessaloniki, Greece (With Honors)
- 2014-2015 **M.Sc.** in *Transportation Systems Design, Planning, and Management*, Department of Civil Engineering, Faculty of Engineering, Aristotle University of Thessaloniki, Greece (8.68/10, With Honors)
- 2008-2013 **M.Eng.** (Diploma) in *Mechanical Engineering*, Department of Mechanical Engineering, Faculty of Engineering, Aristotle University of Thessaloniki, Greece (9.06/10, With Greatest Honors – Ranked 1st)

Journal Publications

1. **Aivazidou, E.**, Tsolakis, N., Mollona, E. (2026), “Circular Economy 5.0 on Its Way: A Digital Sustainability Transition”, *Academy of Management Perspectives*, Vol. 40, No.2, pp. 274-295. DOI: [10.5465/amp.2023.0161](https://doi.org/10.5465/amp.2023.0161)
2. Christakakis, E., **Aivazidou, E.**, Brattich, E. (2026), “An observational study of the urban heat island in the eastern Mediterranean coast: The case of Thessaloniki, Greece”, *Environmental Earth Sciences*, Vol. 85, No. 7, pp. 181. DOI: [10.1007/s12665-026-12851-2](https://doi.org/10.1007/s12665-026-12851-2)
3. 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)
4. 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)
5. **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)
6. **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)
7. 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)
8. 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)
9. 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)
10. 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)
 11. 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)
 12. **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)
 13. 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)
 14. **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)
 15. **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)
 16. 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)
 17. 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)
 18. **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)
 19. **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)
 20. 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)
 21. 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)
 22. **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)

23. 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)
24. **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)
25. 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)
26. **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)
27. 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)
28. 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)
29. **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)
30. **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)
31. **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)
32. **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

2024-2025	<i>“Sustainable Machining of Aerospace Commodities”</i> (acronym: SCORE), IHU, Greece (Deputy Principal Investigator) <u>Funder</u> : Eurostars - Eureka Network
2020-2022	<i>“Human-Robot Synergetic Logistics for High Value Crops”</i> (acronym: SYNERGIE), Centre for Research and Technology – Hellas, Greece (Researcher) <u>Funder</u> : Hellenic Foundation for Research and Innovation, Greece
2018-2019	<i>“Perception and Evaluation of Regional and Cohesion Policies by Europeans and Identification with the Values of Europe”</i> (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**)
Funder: 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**)
Funder: Federal Institute for Vocational Education and Training, Germany

Teaching Activity

- 2022-onwards Postgraduate course: *“Production Systems”*, Department of Industrial Engineering and Management, IHU, Greece
- 2022-onwards Undergraduate courses: *“Production Systems”*, *“Micro-/Macroeconomics”*, *“Linear Algebra”*, *“Entrepreneurship”*, *“Operations Research”*, Department of Industrial Engineering and Management, IHU, Greece
- 2024-2025 Life-long learning courses: *“Circular Economy and Sustainability”*, *“Energy Savings”*, IHU, 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

Ph.D. Committees

- 06/2025-onwards Supervisor of the Ph.D. Thesis: *“Strategic Supply Chain Management in Business Ecosystems of the Energy Industry”* (Candidate: A. Vargiamis), Department of Industrial Engineering and Management, IHU, Greece
- 01/2025-onwards Advisory Committee Member of the Ph.D. Thesis: *“Circular economy and urban ecosystems: Sustainability and assessment on environmental, social, and governance issues”*, Department of Supply Chain Management, IHU, Greece
- 06/2024-onwards Advisory Committee Member of the Ph.D. Thesis: *“Quality in education through the application of generalized systems theory”*, Department of Industrial Engineering and Management, IHU, Greece

Academic Committees

- 09/2024-onwards Academic Counselor, Department of Industrial Engineering and Management, IHU, Greece
- 12/2023-onwards Member, Committee for the Equal Access of Students with Disabilities and Special Educational Needs, IHU, Greece
- 10/2022-onwards Supervisor of Diploma Theses, Department of Industrial Engineering and Management, IHU, 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

- Onassis Scholars' Association, Greece
- Association of Mechanical-Electrical Engineers of Northern Greece
- Technical Chamber of Greece [Registration No.: 135064]
- Academy of Management (2025-2026)

Languages

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