

Katerina Troullaki



Contact

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K4. A28, CHENVENG, Technical University of Crete

EDUCATION

2025 Doctoral Degree (PhD)

Thesis title: Life Cycle Sustainability Assessment of Distributed Manufacturing
School of Chemical and Environmental Engineering
Technical University of Crete

2018 Master of Science (MSc)

Environmental Management, Sustainable Energy and Climate Change
School of Chemical and Environmental Engineering
Technical University of Crete

2013 Integrated Master of Engineering (Meng)

Electrical and Computers Engineering
Direction: Energy
School of Electrical and Computers Engineering
National Technical University of Athens

RESEARCH/WORK EXPERIENCE

Research programs

1.2024 – Today

'ECOFUTURE: A socio-ecological approach to combat desertification for a sustainable future', PRIMA, Coordinator: Technical University of Crete, 2023-2026.

- Socio-economic analysis and strategic planning within the Water-Energy-Food-Ecosystems (WEFE) nexus.

9.2022 – 12.2023

'AGROFOSSILFREE: Strategies and technologies to achieve a European Fossil-energy-free agriculture', H2020, Coordinator: EKETA-CERTH, 2020-2023.

- Doctoral researcher

7. 2019 - 2023

COSMOLOCALISM - H2020 ERC, 2019 - 2022

- Doctoral Researcher: Sustainability assessment of a cosmopolitan production model.

2018 - 2019

OPTIMA - H2020, 2018-2021

- Doctoral Researcher: Sustainability assessment combining Life Cycle Assessment (LCA) and Multi-Criteria Decision Analysis (MCDA).

Other research experience

11.2019 – 12.2019

Ragnar Nurkse Department of Innovation and Governance, Tallinn University of Technology, Estonia

Visiting researcher under the COSMOLOCALISM project

10.2017 – 12.2017

Centre for Industrial Ecology, University of Coimbra, Portugal

Traineeship focused on the development of Life Cycle Assessment (LCA) models and the broader field of Industrial Ecology

06.2016 – 12.2016

Wind Empowerment, Charitable Incorporated Organization, United Kingdom

Project Coordinator: Delivery Models for Sustainable Rural Electrification with Small Wind Turbines

6.2012 – 3.2014

Electric Energy Systems Laboratory, School of Electrical and Computer Engineering, National Technical University of Athens, Greece

Undergraduate Research Assistant: Design optimization, manufacturing and testing of a small wind turbine in laboratory and real-world conditions.

Other work experience

2016 - 2020

Wind Empowerment, Charitable Incorporated Organization, United Kingdom

12.2018 – 12.2020 Executive Board member, Communications

11.2016 – 12.2018 Executive Board member, Secretary

10.2014 – 4.2016

Nokia Networks, R&D Center, Athens, Greece

Product: MME, Mobile Broadband, LTE/4G Core Network

Telecom Test Engineer

SCIENTIFIC PUBLICATIONS

Publications in international peer-reviewed journals

- Nikolaidis, N. P., Troullaki, K., Lilli, M. A., Halasah, S., Lehrer, D., Rozakis, S., Wald, S., Al Ajrami, A., Al-Attili, S., Zemah-Shamir, S., Jayyousi, A., Kan, I., & Reznik, A. (2025). An integrated participatory framework for WEFE nexus strategic planning: The Jordan Valley case study. *Journal of Environmental Management*, 375, 124246. <https://doi.org/10.1016/j.jenvman.2025.124246>
- Troullaki, K., Rozakis, S. (2024). Grassroots innovation: A review and a meta-theoretical

sustainability assessment framework. *Environmental Innovation and Societal Transitions*, 50:100822. <https://doi.org/10.1016/j.eist.2024.100822>

- Balafoutis, A. T., Borzecka, M., Rozakis, S., **Troullaki, K.**, Vandorou, F., & Wydra, M. (2024). Investigating Published Research towards a Fossil-Energy-Free Agriculture Transformation. *Energies*, 17(17), 4409. <https://doi.org/10.3390/en17174409>
- **Troullaki, K.**, Rozakis, S., Latoufis, K., Giotitsas, C., Priavolou, C., & Freire, F. (2022). Sustainable Rural Electrification: Harnessing a Cosmolocal Wind. *Energies*, 15, 4659. <https://doi.org/10.3390/en15134659>
- Priavolou, C., **Troullaki, K.**, Tsioris, N., Giotitsas, C., & Kostakis, V. (2022). Tracing sustainable production from a degrowth and localisation perspective: a case of 3D printers. *Journal of Cleaner Production*, 376. <https://doi.org/10.1016/j.jclepro.2022.134291>
- **Troullaki, K.**, Rozakis, S., & Kostakis, V. (2021). Bridging barriers in sustainability research: A review from sustainability science to life cycle sustainability assessment. *Ecological Economics*, 184, 107007. <https://doi.org/10.1016/j.ecolecon.2021.107007>
- Pazaitis, A., Kostakis, V., Kallis, G., & **Troullaki, K.** (2020). Should We Look for a Hero to Save Us from the Coronavirus? The Commons as an Alternative Trajectory for Social Change. *TripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*, 613–621. <https://doi.org/10.31269/triplec.v18i2.1203>

Publications in books

- Rozakis, S., **Troullaki, K.**, Jurga, P. (2023). Theory and practice in strategic niche planning: The Polish biogas case (Chapter 13). In: Wojciech Czekala (Ed.), Christian V. Stevens (Ed.), *Biogas Plants: Waste Management, Energy Production and Carbon Footprint Reduction*. Wiley (ISBN-13: 9781119863786). <https://doi.org/10.1002/9781119863946.ch13>
- **Troullaki, K.** (2023). "Sustainability assessment tools". In *Dictionary of Ecological Economics*. Cheltenham, UK: Edward Elgar Publishing. Retrieved Feb 20, 2024, from <https://doi.org/10.4337/9781788974912.S.94>
- **Troullaki, K.** (2023). "Life-cycle assessment (LCA)". In *Dictionary of Ecological Economics*. Cheltenham, UK: Edward Elgar Publishing. Retrieved Feb 20, 2024, from <https://doi.org/10.4337/9781788974912.L.24>

Publications in international peer-reviewed conference proceedings

- **Troullaki A.**, Latoufis K., Marques P., Freire F., Life cycle assessment of locally manufactured small wind turbines and pico-hydro plants, 2nd International Conference on Smart Energy Systems and Technologies (SEST 2019), Porto, September 2019
- **Troullaki K.**, Rozakis S., Latoufis K., Freire F., Sustainability of local manufacture and local maintenance of small wind turbines in remote areas, 167th EAAE Seminar on European Agriculture and Transition to Bio-economy, Poland, 24-25 September 2018
- **Troullaki K.**, Rozakis S., Freire F., Locally Manufactured Small Wind Turbines: Assessing their sustainability in remote areas in comparison with a commercial small wind turbine, 4th International Conference on Decision Support System Technology – ICDSST 2018 & PROMETHEE DAYS 2018, Greece, May 2018, ([link](#))

- Latoufis K., Troullaki K., Pazios T., Hatziargyriou N., Design of axial flux permanent magnet generators using various magnetic materials in locally manufactured small wind turbines, 22nd International Conference on Electrical Machines, ICEM 2016, Switzerland, September 2016, ([link](#))

SCHOLARSHIPS/AWARDS

- **Doctoral Scholarship, Hellenic Foundation for Research and Innovation (HFRI - ELIDEK), 2019–2022**
- **Academic Excellence Award, LIMMAT STIFTUNG**
Awarded in recognition of academic excellence during the MSc programme “*Environmental Engineering*”, Technical University of Crete, December 2018.
- **Best Paper Award (Energy Session)**
8th National Conference of Electrical and Computer Engineering Students (SFHMMY8), Patras, April 2015

LANGUAGES

- **Greek** - Native
- **English** – Proficient (C2: Certificate of Proficiency in English - University of Cambridge; Certificate of Proficiency in English - University of Michigan)
- **German** – Intermediate (B1: Zertifikat Deutch – Goethe Institut)
- **Spanish** – Basic (A2: DELE – Nivel Inicial)
- **Turkish** – Basic (2 years of study at the School of Foreign Languages, NKUA)