Curriculum Vitae

Marios Karmellos

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The Cyprus Institute
Energy, Environment and Water Research Center
20 Konstantinou Kavafi St.
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Cyprus

Academic and Professional details:

Education:

2019	PhD – Laboratory of Industrial & Energy Economics, School of Chemical Engineering, National Technical University of Athens, Greece Thesis title: "*Multi-Objective Optimization of Distributed Energy Systems with focus on Robust Solutions*"
2013	MSc Sustainable Energy Systems – School of Engineering, The University of Edinburgh, United Kingdom
2012	Diploma in Chemical Engineering (M.Eng.) - School of Chemical Engineering, National Technical University of Athens, Greece

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Professional Experience:

September 2019 – to date	**Postdoctoral Fellow for Energy Systems Analysis** The Cyprus Institute Energy, Environment and Water Research Center
July 2014 – July 2019	**Research Assistant/PhD Candidate** Laboratory of Industrial & Energy Economics, School of Chemical Engineering, National Technical University of Athens
October 2011	**Internship** Electricity Authority of Cyprus

Research Experience:

Research interests: Energy Systems Analysis, Distributed Energy Systems, Energy in buildings, Energy Policy, Energy Efficiency, Optimization

Year and Duration	2020
Title	Supporting the Economic Recovery of Cyprus with a View to Energy and Climate Policy
Description	Grant from Research and Innovation Foundation of Cyprus
Year and Duration	2019 – 2022
Title	SFERA-III: Solar Facilities for the European Research Area - Third Phase (H2020)
Description	SFERA-III aims to address advanced scientific challenges and integrate research activities in the field of Concentrating Solar Thermal (CST) by integrating key European research infrastructures into a wide project *Research Team Member*
Year and Duration	2017 – 2020
Title	INSHIP: Integrating National Research Agendas on Solar Heat for Industrial Processes (H2020)
Description	INSHIP focuses on engaging major European research institutes with recognized activities on Solar Heat for Industrial Processes (SHIP), into an integrated structure. Working on tasks related to integration of EU resources and Dissemination *Research team member*
Year and Duration	2019 – 2020
Title	Impact Assessment of the Cyprus Integrated National Energy and Climate Plan
Description	Application of energy-economy models and economic models to evaluate the impacts of energy and climate policies on the energy system, environment and health, productivity, employment and social equity *Research team member*

Teaching Experience:

Teaching Assistant – School of Chemical Engineering, National Technical University of Athens:

- Project Management and Decision Support
- Economic Analysis of Industrial Decisions

Advisor of diploma theses – Laboratory of Industrial & Energy Economics, School of Chemical Engineering, National Technical University of Athens

Honours and Achievements:

- Scholarship from "State Scholarshipσ Foundation (IKY)" for doctoral studies at NTUA
- Scholarship from "Special Account for Research Grants" of NTUA for doctoral studies

Professional Service and Memberships:

Member of Cyprus Scientific and Technical Chamber (Chemical Engineering)

Presentations and Outreach:

Conferences:

1. Karmellos M, Georgiou PN, Mavrotas G, A mathematical programming application for the design of distributed energy systems with focus on the robustness of solutions, 12th Panhellenic Scientific Conference in Chemical Engineering, Athens, Greece, May 29-31, 2019
2. Karmellos M, Mavrotas G, Design of distributed energy systems using multi-objective mathematical programming, 11th Panhellenic Scientific Conference in Chemical Engineering, Thessaloniki, Greece, May 25-27, 2017
3. Karmellos M, Mirasgedis S, Tourkolias C, Kopidou D., Diakoulaki D., Energy performance and socioeconomic return of the programme "Energy Saving at Home" in Greece, 5th International Conference on Renewable Energy Sources and Energy Efficiency – New Challenges, Nicosia, Cyprus, May 5-6, 2016
4. Karmellos M, Mavrotas G, A model and software tool for the optimal selection of energy efficiency measures in buildings, 2nd International Conference on "Energy, Sustainability and Climate Change"ESCC 2015, Crete, Greece, June 21-27, 2015
5. Panagopoulou G, Karmellos M, Diakoulaki D, "Decomposition Analysis of the Driving factors of CO2 Emissions from the Electricity Sector in the European Union," in 9th Hellenic Conference of Chemical Engineering, Athens, 23-25 May 2013

Publications:

Publications in scientific journals:

1. Taliotis C, Giannakis E, Karmellos M, Fylaktos N, Zachariadis T. Estimating the economy-wide impacts of energy policies in Cyprus. Energy Strateg Rev 2020;29:100495. https://doi.org/10.1016/j.esr.2020.100495.
2. Taliotis C, Fylaktos N, Partasides G, Gardumi F, Sridharan V, Karmellos M, et al. The Effect of Electric Vehicle Deployment on Renewable Electricity Generation in an Isolated Grid System : The Case Study of Cyprus. Front Energy Res 2020;8:1–14. https://doi.org/https://doi.org/10.3389/fenrg.2020.00205.
3. Karmellos M, Mavrotas G. Multi-objective optimization and comparison framework for the design of Distributed Energy Systems. Energy Convers Manag 2019;180:473–95. https://doi.org/10.1016/j.enconman.2018.10.083.
4. Karmellos M, Georgiou PN, Mavrotas G. A comparison of methods for the optimal design of Distributed Energy Systems under uncertainty. Energy 2019;178:318–33. https://doi.org/10.1016/j.energy.2019.04.153.
5. Karmellos M, Kopidou D, Diakoulaki D. A decomposition analysis of the driving factors of CO2 (Carbon dioxide) emissions from the power sector in the European Union countries. Energy 2016;94:680–92. https://doi.org/10.1016/j.energy.2015.10.145.
6. Karmellos M, Kiprakis A, Mavrotas G. A multi-objective approach for optimal prioritization of energy efficiency measures in buildings: Model, software and case studies. Appl Energy 2015;139:131–50. https://doi.org/10.1016/j.apenergy.2014.11.023.