

Curriculum Vitae

Academic and Professional details:

Education:

2022 - **PhD in Energy and Sustainable Development**, Marie Skłodowska-Curie Actions Innovative Training Networks scholarship.

Institutes:

- ✚ University of Perugia, Department of Engineering, Perugia, Italy
 - ✚ University of New South Wales, School of Built Environment, Sydney, Australia
 - ✚ Padana Resine S.R.L., Rovigo, Italy
- PhD title: "The role of anthropogenic forcing for exacerbating urban heat island: development and implementation of innovative smart materials, transect monitoring techniques and modeling solutions towards human-centric resilience to local climate scale".

2018 - **MSc in Urban Environment Physics**,

Institute:

- ✚ Physics Department, National and Kapodistrian University of Athens, Athens, Greece.
- MSc thesis title: "Analysis on fuel poverty's causes and impacts on students in 7 European countries".

2014 - **BSc in Physics**, specialization in Environmental Physics and Meteorology,

Institute:

- ✚ National and Kapodistrian University of Athens, Athens, Greece.
- BSc thesis title: "Research on the factors affecting the characteristics of solar ultraviolet radiation".

Professional Experience:

11/2018 - now

Organization: **Environmental Applied Physics Laboratory (EAP LAB)** -

Department of Engineering, University of Perugia, Perugia, Italy

Supervisor: Professor Anna Laura Pisello

Position: Researcher

Tasks:

- ✚ Data analysis, in-situ experiments, monitoring assessments on urban environments and thermal comfort in outdoors/indoors
- ✚ Preparation of proposals/deliverables/reports/scientific articles related to EU-funding and national projects
- ✚ Communication and dissemination of the research goals and outcomes in conferences/symposiums/university students

01/2016 - 10/2018

Organization: **Group of Building Environmental Studies (GRBES)** - Department of Applied Physics, National and Kapodistrian University of Athens, Athens, Greece

Supervisor: Professors Mat Santamouris and Margarita Niki Assimakopoulos

Position: Researcher

Tasks:

- ✚ Preparation of proposals/deliverables/reports/scientific articles related to EU-funding and national projects
- ✚ Collection, evaluation and statistical analysis of data on energy indicators
- ✚ In-situ experimental evaluation of energy and environmental characteristics of buildings and outdoor spaces

09/2014 - 10/2018

Organization: **Architectural Office - Architektoniko Grafio (C.Govetta, D. Loukopoulos, L. Solomon)**, Athens, Greece

Supervisor: Professor Dimitrios Loukoloulos

Position: Research assistant

Tasks:

- ✚ Assistant in energy audits on a luxury hotel complex in the island of Skiathos and on a multi storey house in Athens
- ✚ Scientific consultant for the application of the principles of Bioclimatic Design and Passive Solar Systems in new constructions

Research Experience:

Sustainable, Accessible, Safe, Resilient and Smart Urban Pavements

(SAFERUP) - EU project

(Grant agreement ID: 765057)

- ✚ Marie Skłodowska-Curie Innovative Training Networks (ITN)
- ✚ Funding from the EU Horizon 2020 Research and Innovation Program
- ✚ Research on innovative and sustainable paving materials for the mitigation of urban overheating
- ✚ Development of novel thermal, optical and radiative characterization techniques for materials implementation into paving infrastructure
- ✚ Life cycle and Life cost analysis of build environment materials
- ✚ Secondment to Padana Resine S.R.L. (Rovigo, Italy):
Development on novel bio-based binders for sustainable paving applications
- ✚ Communication and dissemination of the research goals and outcomes
- ✚ Preparation of scientific articles/deliverable reports

SOS Città - National project

(Grant agreement No. 2018.0499.026)

- ✚ Funding from the Municipality of Perugia
- ✚ Research on sustainable urban components, i.e. renewable outdoor lightning and green paving infrastructure
- ✚ Preparation of deliverable reports/scientific articles
- ✚ Communication and dissemination of the research goals and outcomes

Students Achieving Valuable Energy Savings 2 (SAVES2) - EU project

(Grant agreement ID: 754203)

- ✚ Funding from the EU Horizon 2020 Research and Innovation Program
- ✚ Research on the vulnerability of university students to Energy Poverty within 7 EU countries
- ✚ Preparation of deliverable reports/scientific articles
- ✚ Communication and dissemination of the research goals and outcomes

Smart Grid Energy Management (SMART GEMS) - EU project
(Grant agreement ID: 645677)

- ✚ Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE) project
- ✚ Funding from the EU Horizon 2020 Research and Innovation Program
- ✚ Secondment to AEA S.R.L. - GRUPPO LOCCIONI (Ancona, Italy): Assistance on the engineering study for the energy upgrade of the main company's building using EnergyPlus
- ✚ Secondment to Exergy Ltd (Coventry, UK): Development of an Artificial Neural Network Model to predict the energy consumption of buildings
- ✚ Secondment to Elgama Elektronika, (Vilnius, Lithuania): Development of smart grid systems for the built environment
- ✚ Preparation of Deliverable reports

Holistic energy-efficient retrofitting of residential buildings (HERB) - EU project
(Grant agreement ID: 314283)

- ✚ Funding from the EU Seventh Program for research, technological development and demonstration
- ✚ Research on techniques for a sustainable built environment
- ✚ Preparation of Deliverable reports/scientific articles
- ✚ In-situ measurements of sun luminance through a light pipe and evaluation of data

Achieving near Zero and Positive Energy Settlements in Europe using Advanced Energy Technology (ZERO-PLUS) - EU project
(Grant agreement ID: 678407)

- ✚ Funding from the EU Horizon 2020 Research and Innovation Program
- ✚ Simulations for buildings energy efficiency
- ✚ Preparation of deliverable reports/scientific articles

Teaching Experience:

01/2019 - now

Organization: University of Perugia

Position: PhD candidate/Researcher

Tasks: Lectures to undergraduate students - Department of Engineering

09/2017 - 10/2018

Organization: National and Kapodistrian University of Athens

Position: Researcher

Tasks: Lectures to postgraduate students of MSc "Environmental Physics and Meteorology" -Department of Physics

09/2014 - 10/2018

Organization: Omokentro - School for Private courses

Position: Private Teacher

Tasks: Assistance and supervision of High School Students on Physics Courses

Honours and Achievements:

- ✚ Award for the best video presentation. 3rd SAFERUP! Week. (2021)
- ✚ Award for the second best poster. 2nd SAFERUP! Week (2020)

- ✚ Marie Skłodowska-Curie ITN scholarship (2018)
- ✚ Scholarship for outstanding performance on the Msc "Environmental Physics" (Section of Environmental Physics and Meteorology, Physics department, National and Kapodestrian University of Athens (2017)

Other skills:

✚ Languages:

Mother Tongue: Greek

Other Languages:

- English - Proficient User (Certificate of Proficiency in English, University of Michigan)
- Italian - Independent User
- French - Independent User (Delf A3, Institut Français de Grèce (IFG))
- German - Basic User

✚ Programming/Software skills:

- Python, R, C++, Fortran, VBA, MATLAB
- QGIS
- Microsoft Office Tools
- Arduino
- OpenFOAM, COMSOL
- LabVIEW
- EnergyPlus, TRNSYS, ENVI-met
- AUTOCAD (2D - 3D), SketchUp
- GNU Octave
- SPSS, Tableau

✚ Communication skills:

- Team working ability
- Flexibility, adaptability and extroversion

✚ Organisational / managerial skills:

- Decisiveness and persistency
- Under pressure working ability and consistency in timetables

Training Attended:

- ✚ Machine Learning - Stanford University - Coursera, (3 months, 2017)
- ✚ C++ course - Udacity (4 months, 2021)

Presentations:

- ✚ "A study on the thermo-optical behavior of phosphorescent coatings for passive cooling applications" at 100% RENEWABLE: Strategies, technologies and challenges for a fossil free future - Applied Energy Symposium (ICAE), October 2020, Pisa, Italy
- ✚ "Empowering Students to Save Energy through a Behavioural Change Campaign in University Accommodation" at The 4th International Conference on Economics and Social Sciences - Resilience and economic

intelligence through digitalization and big data analytics June 10-11, 2021 Bucharest University of Economic Studies, Romania

- ✦ "New green paving systems for urban heat island and noise pollution mitigation" at National Conference of CIRIAF, April 2019, Perugia, Italy
- ✦ "Analysis of current trends in the rental accommodation market for students and their implications for fuel poverty" at BEHAVE conference, September 2018, Zurich, Switzerland
- ✦ "Analysis of current trends in the rental accommodation market for students" at COST Action 16232 European Energy Poverty: Agenda Co-Creation and Knowledge Innovation (ENGAGER 2017-2021), March 2018, Athens, Greece

Peer-reviewed Publications:

- ✦ "Could a bio-resin and transparent pavement improve the urban environment? An in field thermo-optical investigation and life-cycle assessment." *Sustainable Cities and Society* (2022): 103597.
- ✦ Urban overheating mitigation through facades: the role of new and innovative cool coatings. In *Rethinking Building Skins* (pp. 61-87). Woodhead Publishing.
- ✦ Intra-urban microclimate investigation in urban heat island through a novel mobile monitoring system. *Scientific Reports*, 11(1), pp.1-17.
- ✦ A Mobile Vehicle-Based Methodology for Dynamic Microclimate Analysis. *International Journal of Environmental Research*, pp.1-9.
- ✦ Life Cycle Assessment on Different Synthetic Routes of ZIF-8 Nanomaterials. *Energies*, 14(16), p.4998.
- ✦ A study on the thermo-optical behaviour of phosphorescent coatings for passive cooling applications. In *E3S Web of Conferences* 238, p. 06002.
- ✦ For the mitigation of urban heat island and urban noise island: two simultaneous sides of urban discomfort. *Environmental Research Letters*, 15(10), p.103004.
- ✦ Phosphorescent-based pavements for counteracting urban overheating-A proof of concept. *Solar Energy*, 202, pp.540-552.
- ✦ Using bio-oils for improving environmental performance of an advanced resinous binder for pavement applications with heat and noise island mitigation potential. *Sustainable Energy Technologies and Assessments*, 39, p.100706.
- ✦ An analysis of the determining factors of fuel poverty among students living in the private-rented sector in Europe and its impact on their well-being. *Energy Sources, Part B: Economics, Planning, and Policy*, 15(2), pp.113-135.
- ✦ Analysis of the experimental performance of light pipes. *Energy and buildings*, 151, pp.242-249.