



Hosting offer for Marie Skłodowska-Curie Postdoctoral Fellowships (PF) 2022 at University of Cyprus/PV Technology Lab/FOSS Research Centre for Sustainable Energy/Electromagnetics and Novel Applications Lab

[MSCA Postdoctoral Fellowships](#) are individual research grants offering excellent postdoctoral researchers the chance to develop their skills by means of international mobility. Through the implementation of an original and personalised research project, MSCA Postdoctoral Fellowships aim to foster excellence through training and mobility and to equip researchers with new skills and competences in order to identify solutions to current and future challenges.

University of Cyprus (UCY) / PV Technology Lab / FOSS Research Centre for Sustainable Energy / Electromagnetics and Novel Applications Laboratory invites motivated postdoctoral researchers to jointly prepare an application for the [MSCA-PF-2022 call Marie Skłodowska-Curie Postdoctoral Fellowships](#) call ([MSCA-PF-2022](#)) with them as host organisation.

Description of Hosting organisation/group

PV Technology Lab - FOSS Research Centre for Sustainable Energy (FOSS) of the University of Cyprus (UCY) plays a key role in **cutting-edge research and technological activities on sustainable energy and related cross-cutting areas** within Cyprus and at international level.

PV Lab-FOSS has been involved in more than **80 European research projects**, both as coordinator and partner, including HorizonEurope, Horizon2020, FP7, Life+, Erasmus+, NER300, COST, ERA-Net, Interreg MED and ENI CBC MED. Its portfolio of projects has received several awards, with the most recent being the European Commission “**LIFE Citizen’s Prize 2019**”, the environmental and sustainability prize “**Energy Globe Award 2020**” for the “Smart-PV” project and the “**OEB Cyprus Innovation Award 2020**” for the “Public Sector” for the innovative artificial intelligent (AI) powered PV generation day- and hour-ahead forecasting system.

FOSS is -among others- a member of the **DERlab association** of leading laboratories in the field of distributed energy resource (DER) equipment and systems, the **EERA AISBL** which is the organization working on Energy Research at European level to deliver on the Strategic Energy Technology Plan, and **EUREC** which is the leading association representing research centres and university departments active in the area of renewable energy.

PV Technology Lab-FOSS administers a **state-of-the-art indoor and outdoor facility** for the characterisation, evaluation, qualification and monitoring of different solar thermal and PV technologies. The **outdoor facilities** consist of diagnostic equipment for the measurement and monitoring at high resolution of all the important environmental and operational parameters of PV systems in accordance to the accuracy requirements set by the IEC 61724. The **indoor facilities** consist of an environmental chamber, solar simulator, thermal and electroluminescence imaging apparatus and cell characterisation systems. Apart from research purpose usage, the indoor equipment is suitable for standardised indoor tests based on the requirements set by IEC 61215. The **DER-GRID Emulation Infrastructure** is a flexible and scalable microgrid testing, demonstration and R&D platform for smart grid and other advanced energy technologies. The infrastructure comprises of distributed

energy resource (DER) components (grid-connected PV systems and inverters of total capacity 30 kVA), battery energy storage systems (BESS) (capacity of 10 kWh) and controllable AC and DC loads that allow full-power testing capability up to 10 kVA (AC). The infrastructure is further equipped with a **state-of-the-art weather station** and meteorological data-sets are continuously acquired and analysed facilitating research in the area of energy meteorology.

The **Electromagnetics and Novel Applications Lab (ENAL)** was established by the Department of Electrical Engineering at UCY and is managed by Prof. George E. Georghiou. The Lab has been awarded the international accreditation for Quality in testing and calibration (ISO/IEC 17025) and it investigates a wide range of effects in the area of electromagnetic fields. It also performs advanced 2D numerical models of non-thermal plasmas for their fundamental understanding and optimization for modern applications such as biomedical, mass spectrometry, and space exploration.

ENAL is equipped with **high-end computer clusters** (including 128 parallel processors), **custom and commercial software** such as COMSOL to run demanding plasma simulations and solid tumors modelling.

Link to the group webpages:

[PV Technology - University of Cyprus \(www.pvtechnology.ucy.ac.cy\)](http://www.pvtechnology.ucy.ac.cy)

[FOSS - University of Cyprus \(www.foss.ucy.ac.cy\)](http://www.foss.ucy.ac.cy)

[ENAL - University of Cyprus \(www.enal.ucy.ac.cy\)](http://www.enal.ucy.ac.cy)

Topics/expertise

PV Technology Laboratory - FOSS Research Centre for Sustainable Energy of the UCY would be pleased to host a postdoctoral fellow for an MSCA-PF in the fields of **renewable energy sources, photovoltaics (PVs), solar energy, power systems, smart electricity networks, smart cities, smart grids, smart mobility, transport, energy efficiency, energy saving, energy storage, green hydrogen, enabling technologies, integrated solutions, energy policy, energy economics, or any other related scientific area.**

Electromagnetics and Novel Applications Laboratory of the Department of Electrical and Computer Engineering of the UCY would be pleased to host a postdoctoral fellow for an MSCA-PF in the fields of **plasma physics, numerical modelling, simulations, solid tumors, material processing, atmospheric pressure plasma, or any other related scientific area.**

Supervisor: **Prof. George E. Georghiou** is the **Head** of the **PV Technology Lab, Manager of Electromagnetics and Novel Applications Lab, Founding Member of FOSS Research Centre for Sustainable Energy, and Professor in Renewable Sources of Energy and Grid Integration** at the Department of Electrical and Computer Engineering of the University of Cyprus. Prior to this, he was a Lecturer and the undergraduate course leader in Electrical Engineering, University of Southampton and a Research Fellow at the Electricity Utilization Group, University of Cambridge. Having graduated from the University of Cambridge with a BA, MEng, MA all with distinction and a Ph.D., Dr. Georghiou continued his work at the University of Cambridge in the capacity of a Research Fellow (1999-2002). He has a comprehensive knowledge and expertise over the past **25 years in the energy sector** (PV Technology Lab activities) and over the past **20 years in the field of plasma science** (ENAL activities)

with a track record of more than 400 peer-reviewed publications and 4000 citations. Prof. Georghiou has coordinated and participated in **more than 80 European-, National- and Industrially-funded projects** and has received in **excess of 20 Million Euros in research funding**. He is currently collaborating with numerous world-leading companies (Honeywell, Q Cells etc.), international research institutions and universities. He is Editor and Guest Editor of peer-reviewed journals and Representative of Cyprus in **European Energy Committees**. Selected are the SET Plan, the Solar Energy Industrial Initiative, the European Smart Grid Technology Platform and the European Standards Committees on PV. He has represented Cyprus in the Energy Committee for the FP7 and the H2020 and set as Science Advisor to the President of the Republic of Cyprus on Energy Issues. He has successfully supervised an **MSCA-IF postdoctoral researcher** (2016-2018), is currently supervising a **nationally funded MSCA fellow** (2021-2022), and participating as supervisor to the recently awarded **MSCA-COFUND** of the University of Cyprus for funding Experienced Researchers (2021-2027).

Your profile

- Expected qualifications/expertise of the candidate: **PhD holder in Electrical and Computer Engineering, Mechanical and Manufacturing Engineering, Physics or Mathematics, and expertise in any of the abovementioned fields.**
- You must have a completed PhD at the time of the call deadline (14 September 2022).
- Candidates must have a maximum of 8 years full-time research experience from the PhD award date until September 14, 2022. Periods of inactivity in research (e.g. unemployment, periods of employment outside research, parental or sick leave) do not count towards the time of research experience.
- For European fellowships, candidates can be of any nationality and must not have resided or carried out their main activity (work, studies, etc.) in Cyprus for more than 12 months in the 36 months immediately before September 14, 2022.
- Highly motivated candidate with an excellent research track record appropriate to career stage, as evidenced by academic publications and other scientific output.

What we offer

- Support and guidance for the preparation of your MSCA PF proposal.
- A stimulating, interdisciplinary and international environment for high-level research.

See for more details: [PV Technology - University of Cyprus \(www.pvtechnology.ucy.ac.cy\)](http://www.pvtechnology.ucy.ac.cy)

How to apply?

Indicate your interest by contacting the host institution as follows:

Please contact Prof. George E. Georghiou by email (geg@ucy.ac.cy and maxouti.katerina@ucy.ac.cy) with a short CV and motivation to indicate your interest to prepare an MSCA-PF application with Prof. George E. Georghiou as supervisor.

After the supervisor agrees to support you as a MSCA-PF candidate, you can start preparation of MSCA PF project proposal and will be supported further by the Research Support Office of the University of Cyprus.

For more information please contact: Katerina Maxouti (e: maxouti.katerina@ucy.ac.cy, t: +357 22893212).