MSCA-NET

Widening Country Success Story

"Allocate at least five months for preparing your proposal."

Name of the fellow: Dr. Savvas Triantafyllou
Country of the host: Greece
Project Acronym: AI2AM
Project start and end date: 1.09.2021 – 31.08.2023
Type of MSCA, Horizon 2020: Individual Fellowship

What is your project about and why is the topic important for science advancement?

Additively Manufactured fibre reinforced composite components (AMC) are swiftly finding application within the European aerospace and transport industry as they entail less machine and labour costs, less manufacturing waste, and more efficient use of materials. Unfortunately, their typically complex and in cases tessellated geometry gives rise to rapidly developing damage mechanisms. Working at the intersection of computational physics and topology optimisation, AI2AM established a digital methodology for designing optimal components of increased strength with significant reductions in material usage.

Why is your project important for society?

The recently approved Circular Economy Action Plan brings forward the requirement for delivering sustainable and resilient end-products across the entire industrial ecosystem. AI2AM provides a pathway for maximising the operational life-cycle of load bearing components in diverse applications pertaining to, e.g., airplanes, wind-turbines, and bridges while drastically reducing manufacturing and maintenance costs.

What communication and public engagement measures have you foreseen?

The outputs of AI2AM have been communicated via standard academic routes including journal publications in open access, and presentations at international conferences. We further interacted with young audiences via several targeted school visits, our participation in the 'Science is Wonderful!' event and also the National Technical University of Athens (NTUA) hosted the European Researchers' Night.

Why did you choose a widening country as a host?

"Returning to one's home country with the purpose of conducting research after a decade abroad". You can't really beat this. Even more, when your home country emerges from a decade-long financial crisis, and you believe your research can have an impact on emerging technologies and industries.

How did you find your host organisation?

The School of Civil Engineering at NTUA is consistently ranked amongst the top ten European academic institutions. Its academic reputation and excellent environment for conducting research across the engineering spectrum were the prime drivers for choosing NTUA as my host organisation. I also sought to choose a research group with research priorities complementary to mine.

What kind of support did you get?

The research administration team at my former institution, the University of Nottingham, has been extremely helpful at providing support via well planned seminars on MSC actions. In preparing my proposal, I regularly reflected upon the EU research priorities and societal challenges; the European Parliament fact sheets have been extremely useful in that regard.

What tips can you give other researchers who would like to apply for MSCA?

A Marie Skłodowska-Curie fellowship is an ideal pathway to academic and professional development. Your project is bound to be a success if you build your proposal on a research idea you feel passionate about. When articulating your case be very clear on what value you will bring to the host institution, i.e., demonstrate that you will establish an optimum two-way transfer mechanism for knowledge. Allocate at least five months for preparing your proposal.

More information on the project:

The Marie Sklodowska-Curie Actions (MSCA) support researchers at all stage of their career across all disciplines. The MSCA also support cooperation between industry and academia and provide innovative trainings and career developments.

The MSCA Individual Fellowships (IF) provide opportunities to researchers of any nationality to acquire and transfer new knowledge and to work on research and innovation in Europe and beyond.

The MSCA-NET project is the MSCA NCP project to facilitate the transnational cooperation to achieve a consistent and harmonised level of NCP support. The scientific community can also profit from our project to support their MSCA application.