

Widening Country Inspiration Story

“You need to carefully read the documents provided on the Funding and Tenders portal.”

Name of the fellow: Korkut Kaan Tokgoz

Country of the host: Türkiye

Project Acronym: ENSPEC6G

Project start and end date: 4.07.2022 – 3.07.2024

Type of MSCA, Horizon Europe:
Postdoctoral Fellowship



What is your project about?

Mainstream research in cellular and wireless hardware aims for higher data rates, and limited literature focuses on energy efficiency because high data rates and energy efficiency requirements contradict each other. In ENSPEC6G, we are developing a high data rate and, at the same time, an energy-efficient sub-terahertz transmitter. ENSPEC6G aims to propose a solution for a sustainable future that addresses the trade-offs between economic, environmental, and social objectives for 6G Indoor infrastructure.

Why is your project important?

Millimeter-wave communications come into our daily lives with 5G, mainly supplying the required user-end data rates. In order to achieve this and counter the disadvantages inherent to millimeter-wave, there is a plan to place base stations in very high numbers. The overall power efficiency of millimeter-wave base stations can be as low as 5%. Large numbers of them would result in a lot of power loss. Going through 6G, the working frequencies will increase, exacerbating power loss and energy efficiency. At a time when green energy is becoming a must, we must provide green solutions for the cellular and wireless infrastructure. The

aim of the project is to develop energy-efficient wireless circuits and systems.

What kind of support did you get?

The Sabanci University Project Development Office has an experienced team ready to give support to applicants. We went through the application procedure together, and they helped with the application details. They introduced me to the webinars from the NCP in my country, Türkiye. During those webinars, I familiarised myself with the MSCA PF application template. I also learned that TÜBİTAK has a pre-evaluation support application for MSCA PF to cover the consultation costs. TÜBİTAK accepted my pre-evaluation support application, and I was able to find a consultant using the support. I worked closely with the consultant and at the end my MSCA PF application was successful. I would like to thank everyone for their contribution to the success of the application.

Why did you choose a widening country as a host?

I completed my second master's degree and doctoral degree at the Tokyo Institute of Technology. After my

graduation, I worked in Japan for about four years. I always planned to go back to my country, Türkiye, as an academic and MSCA PF looked like a great way to do just that. I can use the grant to support my family, myself and my research. I am happy that Türkiye is an associated country to Horizon Europe and a widening country.

How did you find your host organisation?

I met with my current supervisor, Prof. Yusuf Leblebici, during a conference as a Ph.D. student at the Tokyo Institute of Technology. We kept in touch. When I decided to come back to Türkiye, he advised me to apply for MSCA PF and proposed that we work together at Sabanci University.

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

MSCA PF is a great opportunity for researchers after obtaining a Ph.D. It provides visibility and a good starting fund. The competition to get accepted for this fellowship is tough. If one wishes to apply for MSCA PF, one needs to plan at least half a year ahead of the application deadline. You need to carefully read the documents provided on the Funding and Tenders portal. An important milestone is finding a host and supervisor and this should be completed as soon as possible.

More information on the project:



The Marie Skłodowska-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 Postdoctoral Fellowships (PF) enable talented researchers to work on project in Europe and beyond. They aim at enhancing the innovative potential of postdoctoral researchers through advanced trainings, international and intersectoral mobility.

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.

