



Marie Skłodowska Curie Action – Postdoctoral Fellowship 2023 Expression of interest – Hosting offer (MSCA-PF-2024)

Contact Person/Scientist in charge (data of the principal investigator of the research	M. SUHA
group/lab or scientific supervisor) Surname	YAZICI
Email	<u>syazici@itu.edu.tr</u>
Laboratory /Department /Institute Name /Centre / (data of the centre/department where the fellow would be located (data of the centre/department where the	Hydrogen Energy Technologies Lab/Energy Institute/Istanbul Technical University
Address	ITU Ayazaga, Energy Institute Maslak, 34467, Istanbul, Turkey
Research Area (Please select the research area: corresponding to the eight MSCA evaluation panels. You can select between one and up to three scientific areas per EOI)	Chemistry (CHE) Physics (PHY)
Brief description of the Centre/Research Group (max. 1,600 characters including spaces: information about the research centre or research group, scientific staff. Please include URL if possible)	Newly established research group on electrochemical energy research led by Dr. Yazici. Group is implementing electrochemistry, electrochemical engineering projects on hydrogen and fuel cell in collaboration with chemistry, chemical engineering and material science departments at ITU. Current projects are on hydrogen production from H2S (with Bulgaria BAS), photoelectrochemical hydrogen production (with Korea KIST) and CO2 reduction (national). There is energy storage research as well. Energy Institute with more than 30 academician and research staff carry out research on renewable, nuclear and other aspects of energy.
Project description (max. 1,800 characters including spaces: short description of the research project / research line where the fellow would be hosted and develop his /her project)	Project, supported by TUBITAK-NRF funding is developing photoelectrochemical hydrogen generation devices based on carbon textile composite photoelectrodes. Photoanodes are developed in Korea and photocathodes and tandem cells for photoelectrochemical hydrogen production will be developed at ITU Energy Institute. Photocathode development with wet chemistry and thin-film deposition with various dopants for acceptable absorption spectrum to the solar light and a proper band structure will be carried out. Photoelectrodes will be tested and characterized by electrochemical methods.
Applications: documents to be submitted and deadlines (Please indicate the documents that the candidate fellow should submit to establish contact: CV, letter of motivation, letter of references, etc., please indicate deadline. Recommended deadline)	CV and other proper documents should be submitted for the evaluation of candidate