

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

Contact Person/Scientist in charge <i>(data of the principal investigator of the research group/lab or scientific supervisor)</i>	Name	Prof. Dr.-Ing. Joerg	Huong Giang
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Laboratory /Department /Institute /Centre / <i>(data of the centre/department where the fellow would be located)</i>	Name	Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) Institute for Factory Automation and Production Systems Research sector Signal and Power Networks	
	Address	Fuerther Straße 246b 90429 Nuremberg Germany	
Research Area <i>(Please select the research area: corresponding to the eight MSCA evaluation panels. You can select between one and up to three scientific areas per EOJ)</i>	Information Science and Engineering (ENG)		
Brief description of the Centre/Research Group <i>(max. 1,600 characters including spaces: information about the research centre or research group, scientific staff. Please include URL if possible)</i>	<p>The Institute for Factory Automation and Production Systems is a teaching and research institution for automation technology and mechatronic systems. We are a creative, dynamic and young team researching innovative automation, handling, and assembly systems. One of our research groups, the sector 'Signal and Power Networks', specifically focuses on wiring systems. Research focal points are automated handling and recognition of deformable objects for mounting tasks in an industrial environment, quality monitoring approaches, and digitalized production systems for high-variant manufacturing systems.</p>		
Project description <i>(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)</i>	<p>Wires are deformable linear objects (DLO) and have no compression strength, many degrees of freedom, and special geometric properties. Therefore, automated DLO handling is a challenging task for researchers and practitioners alike. There is a research gap for efficient, economic, and flexible automation solutions for automated DLO handling. State-of-the-art approaches are manual processes which, however, result in non-reproducible, not documented, and non-transparent processes with random failures. This situation is undesired in industrial environments.</p> <p>A research project is proposed to research novel automation solutions for DLO handling. The goal is to develop a framework for DLO state prediction or detection, path planning, and hardware as well as software setup for automated DLO handling in real time. A well-equipped laboratory allows the implementation and validation of the framework. The ultimate goal is to utilize the findings to apply for research funding.</p>		

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: April 2023)

Your applications should include the following:

- Motivation letter
- Curriculum vitae
- Abstract of PhD Thesis
- Link to projects, Github account and/or any software developed
- Copy of academic records (only official records are acceptable)
- Further documents such as representative publications, letters of recommendation, job references

Deadline 30th June 2023