

The Division Microrobotics and Control Engineering (Prof. Dr.-Ing. S. Fatikow), Department of Computing Science of the University of Oldenburg, Germany, invites applications for a

Postdoc Research Associate (m/f/d) with the focus on **“Manipulation at nanoscale”**

The position is 100% time, pay rate E13 TV-L, for 3 years, with the possibility of extension.

Our Divisions's research activities focus on robotic systems and methods for manipulation and characterization of nanomaterials. The research work covers a broad range of related topics, including nanofabrication and nanocharacterization inside SEM, or vision-guided automation of robotic nanohandling. Several unique robotic setups for automated handling at nanoscale are in operation in the Division.

YOUR FOCUS:

Your research work is not bound to a specific project of the Division. We are looking for a candidate with strong motivation to implement own research projects using this postdoctoral position. The candidate's goal should be further academic qualification in order to be able to apply for a professorship within the next 5-6 years. This includes the motivation to acquire new research funds, to form an own research group, and to contribute with own research content to the graduate courses of the Division. Your research projects must fit one of the following strategical topical directions of the Division (whereby other topics related to nanoscale manipulation and characterization are also conceivable):

- Automated robotic manipulation and characterization of nano- or bio-materials
- Automated AFM-based manipulation and characterization at nanoscale
- Automation of robotic manipulation in combination with FIB-based manufacturing in SEM
- Real-time object detection and tracking in microscopic image sequences (SEM, optical) for automated robotic manipulation, e.g. by using artificial neural networks.

YOUR PROFILE:

- Academic university degree and a PhD degree in technical or scientific field
- Very good command of English language, in speech and writing
- Engagement in teaching courses of the Department (4 LVS per semester)
- Experience with experimental laboratory work (competent handling of SEM or AFM)
- Experience with programming languages (C++/C, Python, MATLAB)
- Expertise on robotic automation skills (specifically vision-guided automation)
- Good command of German language (desirable)

WHAT WE OFFER:

- Unique laboratory infrastructure for research in automated robotic handling at nanoscale
- An experienced interdisciplinary team, highly visible in related international research communities
- Excellent opportunities for professional development towards cutting edge research
- Gathering hands-on experience with most advanced nanorobotic systems
- Intellectual freedom to explore and implement new research directions
- Involvement in project cooperation with partners from industry and research
- Regular participation in international research conferences is possible and encouraged.

The University of Oldenburg is an equal opportunities employer. According to § 21 para. 3 of the Legislation Governing Higher Education in Lower Saxony (NHG) preference shall be given to female candidates in cases of equal qualification. The same applies to persons with disabilities.

Please send your application (letter of motivation, CV, certified copies of degrees, references, list of publications) and a short summary of the intended research project (up to 0.5 page) **by email** in a single pdf document with the keyword **“Nano-Manipulation”** to Prof. Dr.-Ing. S. Fatikow fatikow@uni-oldenburg.de, CC to anja.hiller@uni-oldenburg.de. The closing date for applications is **25.09.2022**.