

# A PhD position on electrical impedance tomography

is available at the  
Institute for Multiscale Simulation  
at the Friedrich-Alexander-University Erlangen-Nürnberg  
[www.mss.cbi.fau.de](http://www.mss.cbi.fau.de)

## environment

At the MSS, we investigate the multiscale physics of particulate systems. The MSS hosts an interdisciplinary research team with a unique combination of scientists working numerically, theoretically and experimentally.

## topic

To measure the gas content and flow pattern in two-phase pipe flows, we develop an electric impedance tomography setup consisting of two closely interlinked parts: The data acquisition via an experiment and the reconstruction using a specially trained AI. Your task will be to develop, build and operate the experiment, first as a laboratory setup and later on in an industrial environment.

This includes:

- design of the analog front end
- optimization of excitation patterns
- automation of the measurement process
- robot-assisted acquisition of AI training data
- field testing in an industrial environment

## profile

You are highly motivated and you are deeply committed to research.  
You are able to work independently and as part of a team.  
You are equipped with an analytical and critical mind-set and you communicate clearly and concisely.

## qualification

master's degree in physics or electrical engineering (or a closely related field)  
strong background in performing experiments  
strong background in data acquisition and analysis

## application

- one single pdf including your research statement, your CV and, if applicable, a list of your publications
- Please send your application to  
Prof. Thorsten Pöschel  
[mss-recruitment@fau.de](mailto:mss-recruitment@fau.de)  
applications will be considered until the position is filled.

