

The [International Doctorate Program M³OCCA](#) funded by the Elite Network of the Bavarian State Ministry of Science and The Arts invites applications for a

doctoral candidate position (Entgelt-/Bes.Gr. TV-L E13, 100%, 4 years)

at the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) in Erlangen, Germany. The position will **start 1 June 2026** (fixed start date).

We are seeking a researcher to develop advanced methods for situation-dependent analysis of glacial structures using ground-penetrating radar (GPR). The role involves adapting and refining an existing GPR platform to enable imaging and analysis that accounts for varying water content, the heterogeneity of the medium, and clutter level of the measurement site. The doctoral candidate will design and simulate signal processing concepts for multi-layered ice masses, aiming to improve radar-based subsurface imaging.

Required skills:

- Excellent Master's degree in engineering from a recognized university
- Strong background in radar or wireless systems design
- Strong background in digital signal processing
- Programming skills
- Good reporting and presentation skills
- Good proficiency in German or English (CEFR level C1)
- Ability to work independently, to critically assess own results and to cooperate within a wider research team across disciplines

Desired and advantageous skills are:

- Interest for understanding Earth System processes and their complex interactions
- Demonstrated capacity for independent thinking and diligence

The position is part of the coordinated international doctorate program M³OCCA (9 core funded and up to 11 associated doctoral researchers). The active participation and interaction in the joint research seminars, workshops and annual research retreats is mandatory.

Proficiency in German is advantageous but not required, as the working language is English. However, we strongly recommend to learn German for daily life (funds for German language classes are available).

The candidate will be placed at the FAU [Institute of Microwaves and Photonics](#), which offers a vivid working environment.

The Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) is seeking to augment the number of women in research and teaching and specifically addresses female scientists to apply for this position. We further encourage persons with disabilities to apply. If desired, a member of the equal opportunity office of FAU can participate in the selection process without any disadvantage for the applicant.



For your application, please send a single PDF to idp-mocca@fau.de stating "MOCCA SP 1.1" as subject. The PDF should comprise:

- Cover letter (stating your background and motivation for this project)
- CV, list of publications (if any)
- University degree certificates
- Transcript of records, other certificates (if any)
- Two addresses for potential reference (if any)
- A short research concept how you would approach the topic (max. 2 pages)

Deadline for application: **7 December 2025**, the position is open until filled.

Further information on the sub-project:

Prof. Dr. Martin Vossiek, Institute of Microwaves and Photonics, FAU,
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