Driving decarbonization and digitalization. Together.

Master thesis: Capacitive Micromachined Ultrasonic Transducers for Airborne Applications (f/m/div)

Job description

Are you looking to do your Master thesis and work on simulating and designing capacitive micromachined ultrasonic transducers (CMUTs)? Do you want to also gain practical experience in our Power & Sensor Systems team in a DAX40 company? Then apply and make life easier, safer and greener with us! We are looking forward to your application!

- **Next Generation CMUTs**: You will work on simulating and designing capacitive micromachined ultrasonic transducers (CMUTs) for emerging applications like airborne acoustic imaging, hand gesture recognition, eye tracking and others
- **Expand your horizons**: You will improve the simulation of CMUT behavior using compact modelling to predict the real device behavior of the transducers in a system environment. You will build your own devices and validate your improved model by experimental measurements in Infineon's microphone labs
- **Shape the future**: You will work with your new model where computational costs shall be significantly reduced over FEM simulation. Thereby, faster device and system optimization can be achieved. This allows to reduce not only MEMS development cycles but further enables ultrasonic application designers to achieve best performance of the MEMS transducers in their respective system

Profile

- **Study field**: You are currently studying Physics, Electrical Engineering, Micro- and Nanotechnologies or similar field of study
- **Knowledge**: You demonstrate knowledge in compact modelling with circuit simulators like Spice, Advanced Design System (ADS) and have ideally already gained knowledge in numerical simulation using FEM software like COMSOL
- **Skills**: You are proficient in Python or MATLAB and possess experience working in a laboratory environment and working with demonstrators
- **Way of working**: You provide strong analytical and problem-solving skills
- **Experience**: You have ideally already gained experience with MEMS, especially acoustic MEMS like microphones or micromachined ultrasonic transducers (MUTs) and optional acoustics, fluidics respectively
- **Personality**: You describe yourself as a self-organized and structured person
- **Language skills**: You have excellent German or English skills, both written and spoken

At a glance

Location:	**Munich (Germany)**
Job ID:	**HRC0820137**
Start date:	**Jul 01, 2024**
Entry level:	**0-1 year**
Type:	**Full time**
Contract:	**Temporary**

Apply to this position online by following the URL and entering the Job ID in our job search. Alternatively, you can also scan the QR code with your smartphone:

Job ID: HRC0820137
www.infineon.com/jobs

Contact

Inês Andrade
Trainee Emerging Talent

Please attach the following documents to your application:

- CV in English
- Certificate of enrollment at university
- Excerpt of the study regulations for the thesis (if applicable)
- Latest grades transcript (not older than 6 months)
- High school report

Benefits

- **Munich:** Coaching, mentoring networking possibilities; Wide range of training offers & planning of career development; International Assignments; Different Career Paths: Project Management, Technical Ladder, Management & Individual Contributor; Flexible working conditions; Home Office Options; Part-time work possible; Sabbatical; Creche and kindergarden with 220 spots and opening times until 5:30pm; Holiday Child Care; On-site social counselling and works doctor; Health promotion programs; On-site gym, jogging paths, beachvolleyball, tennis and soccer court ; On-site canteen; Private insurance offers; Wage payment in case of sick leave; Corporate pension benefits; Flexible transition into retirement; Performance bonus; Cheaper ticket for public transport and very own S-Bahn station; Accessibility access for wheelchairs; Möglichkeit mobil aus dem Ausland zu arbeiten (EU)

Why Us

Find out what we are looking for in your CV
Find out how the student application process works with us
Discover our student website

Driving decarbonization and digitalization. Together.
Infineon designs, develops, manufactures, and markets a broad range of semiconductors and semiconductor-based solutions, focusing on key markets in the automotive, industrial, and consumer sectors. Its products range from standard components to special components for digital, analog, and mixed-signal applications to customer-specific solutions together with the appropriate software.

– Power & Sensor Systems (PSS) drives leading-edge power management, sensing, and data transfer capabilities –
The **PSS division** powers decarbonization and digitalization with a wide range of energy-efficient and digital solutions. PSS semiconductors help avoid carbon emissions, use resources sustainably, manage power effectively and intelligently, give ‘things’ smart senses, and process data quickly and reliably. The portfolio includes power, connectivity, RF, and sensor system technologies to develop smaller, lighter, smarter, and more efficient solutions for consumer devices, smart home/building applications, robotics, computing and data centers, charging devices, power tools, and much more.

We are on a journey to create the best Infineon for everyone.
This means we embrace diversity and inclusion and welcome everyone for who they are. At Infineon, we offer a working environment characterized by trust, openness, respect and tolerance and are committed to give all applicants and employees equal opportunities. We base our recruiting decisions on the applicant´s experience and skills.
We look forward to receiving your resume, even if you do not entirely meet all the requirements of the job posting.
Please let your recruiter know if they need to pay special attention to something in order to enable your participation in the interview process.
Click here for more information about Diversity & Inclusion at Infineon.