

Charité-Universitätsmedizin Berlin - Raum Lab - Imaging, Simulation & Stimulation



The Imaging, Simulation & Stimulation (ISS) Laboratory, led by Prof. Kay Raum, is an independent and interdisciplinary team of physicists, engineers and biochemists. Located at the Charité campus Benjamin Franklin, our lab is dedicated to the development and clinical translation of innovative ultrasound technologies for the diagnosis, tissue engineering and treatment of musculoskeletal diseases. This position is in the framework of a collaboration with the PoroUS GmbH - a spin-off startup of the ISS Laboratory. We use quantitative ultrasound (QUS) technology with patented intelligent algorithms to measure cortical bone quality at a microscopic scale without ionizing radiation hazards.

We search for a Medical Engineering Student with interest in in silico sound simulations for an internship or BSc/MSc thesis

Collaborate in a newly initiated project to display μ CT measurements in silico sound simulations to translate them into QUS methodology

City: Berlin; Starting Date: 01/10/24; Duration: 1 year; Remuneration: by agreement;
Closing date: 30/11/24

Working field

The Imaging, Simulation and Stimulation lab at Charité is looking for a working student with a background in Medical Engineering, Physics or similar studies.

The position will cover topics such as modelling of μ CT data simulations and implementing these into quantitative ultrasound imaging methodology to analyse porcine bones.

We are looking for passionate, highly ambitious and skilled individuals to work in a young and interdisciplinary team. This position can be arranged as a working student position (10 or 20 hours per week), an internship, or a graduation thesis.

Requirements

Your skills...

- Studies in Medical Engineering, Physics, Computer Science or other related studies with highly enthusiastic academic performance
- Experience in in silico sound simulations
- Analytical skills within the scope of medical imaging technologies
- Programming skills (MATLAB, C++, Python)
- Ability to work independently and as part of a team
- High self-motivation, ability to adapt, taking on responsibility and a positive attitude

Your role and responsibilities will be...

- μ CT data analysis
- Adapt and conduct numerical sound propagation simulations based on μ CT data
- Analyse simulated ultrasound data

What We Offer

You will work in a young interdisciplinary team together with medical partners, a local spin-off startup and international academic and industrial partners.

You will work actively on developing and expanding medical imaging technologies.

We offer...

- Both academic and non-academic career perspectives
- Flexible working hours
- An interesting work field with a steep learning curve
- The opportunity to boost your career and deepen your scientific knowledge

Application

Please provide a detailed CV and brief letter of motivation. Any additional documents such as publications or reference letters are voluntary.

Send your application to **maria.uebe@charite.de**.

Do not hesitate to ask if you have any questions!

More information at <https://stellenticket.de/186614/>

Offer visible until 26/09/24

