

Master-Thesis / Bachelor-Thesis / Internship

Biosignal Analysis Tool for Clinical Research

- 79183 Waldkirch, Germany
- Full-time, 6 Months
- Department: R&D / Technology Management and Clinical Research

Company

Dr. Langer Medical GmbH, based in Waldkirch and part of Brainlab AG in Munich since 2022, has specialized in the development, production and sales of innovative medical technology for intraoperative neuromonitoring and neurostimulation for more than 25 years. Our products are pioneering in design and handling and form the basis for our global growth. You can look forward to a friendly and highly motivated team. Your future starts now.

Job Description

In Technology Management and Clinical Research at Langer Medical, we are continuously working on new methods for intraoperative neurophysiological neuromonitoring as part of funded research projects. Our goal within this work is to overcome disadvantages of currently known methods and to offer additional value as clinical benefit and performance for the medical user and the patient.

In a current research project in the field of neurosurgery, we are working on a new method for intraoperative cortical monitoring. The aim of this thesis or internship is to develop a software-based biosignal analysis tool with which biosignals, that were recorded intraoperatively with IONM system can be read out, displayed and analyzed retrospectively and intraoperatively.

In a first step, the thesis/ the work includes the implementation of the readout and display of stored device-specific (AVALANCHE® neuromonitors) measurement data. Further, based on scientific literature suitable biosignals analysis methods, with which new characteristic signal features can be extracted, are to be identified. Lastly, the application of various potential analysis methods to biosignals recorded as part of the above-mentioned research project is then to be realized.

Your Qualifications

- Currently enrolled in a Master's or Bachelor's program in MINT, with a focus on disciplines such as Biomedical Engineering or a closely related field.
- Motivated and interested in clinical research and scientific work
- Written and verbal communication skills in German and English
- Hands-on experience in LabVIEW and/or MATLAB

We Offer

- A mutually supportive and international team
- Working on projects with a lasting impact on medical technology
- Possibility to attend a surgery
- Further training and career development opportunities within Langer Medical or Brainlab AG
- Modern working environment with flexible working hours

Contact

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Ready to apply?

We look forward to receiving your application (ramona.schuler@medical-langer.de or info@medical-langer.de) including your first available start date.