At the University of Rostock, Faculty of Computer Science and Electrical Engineering, Institute of General Electrical Engineering, Chair of Electromagnetic Field Theory, subject to fund allocation, applications are invited for the position of a

Doctoral Researcher (pay scheme TV-L E13, full-time, earliest start on 01.07.2017, ending 30.06.2021)

The research is carried out within the framework of project A02 ‘Multi-scale models for studies on electrically active implants in due consideration of uncertainties in the input data’ of the DFG Collaborative Research Centre (CRC) 1270 ‘Electrically Active Implants’ – ELAINE. Further information: www.elaine.uni-rostock.de.

Remit:
The objectives are creating a macroscopic computational model for deep brain stimulation in a hamster and supporting the animal experiments in cooperating projects by predicting sets of promising stimulation parameters and electrode geometries to improve the stimulation success. The close relation between the computational study and the experimental setup will enable an efficient investigation of the mechanisms of action of deep brain stimulation in the animal model by isolating inefficient stimulation parameters and electrode geometries prior to the experiments. In addition, it will facilitate a direct validation of the predicted stimulation parameters by the partnering project, which will be used to improve the accuracy of the computational model. This will permit computing the activation in the target area during stimulation as well as determining possible side effects by the stimulation of non-target areas. Finally, in close cooperation with the Post Doc in A02 and a further partner project within the CRC, a realistic model of the dielectric tissue properties shall be established and the statistical uncertainty in the neuronal and tissue properties shall be incorporated into the computational model.

Expected appointment requirements:
The preferred candidate should have an excellent master’s degree in computational (science and) engineering, electrical engineering, biomedical engineering, mechanical engineering, mathematics or physics, an interest for interdisciplinary research and medicine, the ability to work in new topics as well as an independent way of working and being proactive.

Excellent knowledge in the numerical solution of partial differential equations and in programming is expected.

Basic knowledge in statistics is welcome.

Good command of the English Language and good English writing skills are mandatory. Willingness to work seriously and committed to a project of its own scientific qualification is expected.

We offer:
- A multi-faceted, diverse and challenging occupation in a university which is rich in tradition but at the same time innovative, modern and family-friendly being situated in a lively city at the Baltic Sea
- The possibility of pursuing a dissertation within the Integrated Research Training Group of the CRC 1270 ‘Electrically Active Implants’ – ELAINE
- Employment in accordance with the provisions of the public sector’s wage agreement (TV-L)
- The remuneration will be paid in accordance with remuneration group 13 TV-L/13 Ü if the personal and tariff prerequisites are satisfied

**Further information**

The position is generally suitable for part-time work. If appropriate applications are received, it is examined whether the part-time wishes can be fulfilled within the employment opportunities.

The limitation of the term of employment complies with § 2 (1) WissZeitVG.

Equal opportunity is an essential part of our human resources policy. In case of equal qualification, applications from severely disabled people or equivalent are explicitly welcome. The University of Rostock seeks to increase the proportion of women in research and teaching and particularly encourages female applicants to apply for this position. Applications from foreign scientist and people with migration background are appreciated.

We are looking forward to your application. Please send your application with the job advertisement number. Application deadline 21.06.2017.

If you apply by post please send only copies of your certificates and a self-addressed envelope with stamps otherwise we cannot send your application back.

Applications by email should be send as a single pdf document to dezernat.personal@uni-rostock.de.

Please note that application and travel costs are not reimbursed by the Federal State of Mecklenburg-Vorpommern.

For further questions please contact:

CRC 1270 ELAINE Prof. Dr. Ursula van Rienen Tel. +49 381 498 7070 ursula.van-rienen@uni-rostock.de

Administration Mrs. Franziska Lobe Tel. +49 381 498 1291

**Application deadline: 21.06.2017**

**Postal address:**

Universität Rostock
Dezernat Personal- und Personalentwicklung
D 18051 Rostock