



The Rostock University Medical Center offers, jointly with the Deutsches Zentrum für Neurodegenerative Erkrankungen e.V. (DZNE) a

**W2 professorship for “Multimodal Sensor and Analytics Systems in Dementia Research”**

with the framework of a joint appointment according to the Jülich model.

The Rostock University Medical Center works in close cooperation with the DZNE Rostock/Greifswald and local clinical networks for the detection, prevention and treatment of neurodegenerative dementia diseases. With this professorship, the Rostock University Medical Center aims to support the implementation of engineering and neuroscientific innovation in healthcare. At the same time, the professorship strengthens the focus on HealthTechMedicine at the Rostock University Medical Center in the field of neurosciences and the Centre for Transdisciplinary Neurosciences Rostock (CTNR).

The applicant should further develop the research field “Multimodal Sensor and Analytics Systems in Dementia Research” at the site. The focus will be on the development of digital health technologies for monitoring and assisting people with neurodegenerative and dementia-related diseases. The applicant will be involved in the conception of a Clinical Trial Unit with a Smart Home Lab to be established by 2029 with Helmholtz funding.

Engineering of sensor and data integration as well as multimodal data analysis should ideally incorporate user-centered methods for the participatory development of new digital health technologies in order to develop and apply patient-oriented, ecologically valid sensor environments and user-centered feedback systems. The aim is to integrate ethical, legal and social aspects (ELSA) with user-centered participatory designs for digital sensor technologies.

The aim of the research is the development and application of digital networked monitoring and sensor technologies that take into account the values and needs of patients, caregivers and other stakeholders. One focus is on multimodal, intelligently networked sensor environments in different settings and the development of interactive technologies. There is a need for research in the areas of interoperability and integration, data fusion and contextualization, scalability, as well as user acceptance and usability. As far as possible, future users should be involved, e.g. with user-centered design approaches, in order to work on these or related issues.

The applicant should contribute his/her research expertise to the work at the Interdisciplinary Faculty (INF) of the University of Rostock, in particular in the departments “Ageing of Individuals and Society” (AGIS) and “Knowledge - Culture - Transformation” (WKT). The applicant will also work closely with the Fraunhofer-Institute for Computer Graphics Research IGD in Rostock in the field of digital health technologies as part of the joint Digital Health Campus; a contractual connection to the Fraunhofer IGD for the joint use of resources is being pursued. Furthermore, there is close cooperation with the Chairs of Artificial Intelligence in Dementia Research and Intelligent Systems at the Rostock University Medical Center as well as the Institute for Visual and Analytic Computing at the University of Rostock.

The successful candidate is expected to have a degree and PhD in engineering, electrical engineering, computer science, or related areas. The position holder will be responsible for managing the research field “Multimodal Sensor and Analytics Systems in Dementia Research”. Outstanding achievements and relevant experience in the above-mentioned and/or related research topics must be demonstrated for this competence. The appointment is made jointly by the University of Rostock and the DZNE. The appointed person is hired as a full professor within the framework of an employment contract and is granted leave of absence to the DZNE. The appointment is made for an unlimited period of time according to § 61 LHG Mecklenburg-Vorpommern (M-V). The DZNE and the University of Rostock will jointly select applicants.

The requirements for employment are according to § 58 LHG M-V. In particular, these include completion of a university degree, a doctorate, and the habilitation or equivalent scientific achievements, as well as proof of teaching abilities in a university setting.

This call is addressed to all persons independent of their gender. The Rostock University Medical Center and the DZNE aim to increase the number of women in the scientific field and therefore strongly encourage qualified women with reference to § 7 paragraph 3 of the Equal Opportunities Act of M-V to apply. Women will be considered with priority if their qualifications are essentially equivalent, unless reasons relating to the person of the competitor predominate. Severely disabled applicants (f/m/d) will be given special consideration if they have the same aptitude, ability and qualifications.

Applications with a detailed curriculum vitae, a description of the scientific career, a description of previous achievements in research and teaching, a structured list of publications with details of the impact factors, including five main original papers and a list of third-party funding acquired to date, must be submitted no later than 6 weeks after publication of this advertisement via the web at <https://berufungen.med.uni-rostock.de/> (Current calls for applications), addressed to the Dean and Scientific Director of the Rostock University Medical Center, Prof. Dr. med. Bernd J. Krause, Ernst-Heydemann-Str. 8, 18057 Rostock.

Applications by post or e-mail cannot be considered. If you have any questions or require further information, please contact us at [dekanat-berufungen@med.uni-rostock.de](mailto:dekanat-berufungen@med.uni-rostock.de). In accordance with the applicable rules of the State of M-V, the application costs will not be covered.