

The Faculty of Natural Sciences and Technology at Saarland University and the Fraunhofer Society are inviting applications for the following position commencing at the earliest opportunity

Professorship (W3) in Cognitive Sensor Systems (reference number W1720)

To be held simultaneously with the position of

Director of the Fraunhofer Institute for Non-Destructive Testing IZFP

Saarland University is a campus university in the south-west of Germany with around 17,000 students, a distinct international focus and a strong research profile. The Fraunhofer Institute for Non-Destructive Testing is an internationally respected R&D institution that is specialized in the development of cognitive measurement systems for non-destructive monitoring and testing.

Saarland University and the Fraunhofer IZFP have been cooperating since 1988 in the field of non-destructive testing. Close collaboration and interaction between the Department of Systems Engineering and Fraunhofer IZFP play a significant role in strengthening the engineering sciences in Saarland.

In addition to your professorial duties, you will also hold the position of Director of Fraunhofer IZFP, which will involve managing the institute's scientific and business activities and developing the institute within the existing Fraunhofer model and the Fraunhofer Society's overall strategy.

In your new position, you will be expected to make important contributions to the development of intelligent sensor systems and to facilitate the transfer of novel technological developments to industrial applications along the entire material and product value chains. The goal is to develop novel autoadaptive measurement methods in areas such as ultrasound technology, thermography, acoustics, or microwave technology.

We expect you to be adept at teaching the relevant core scientific and engineering topics and at undertaking research in these fields. As a skilled research and technology manager, you will be able to coordinate professionally with funding bodies as well as research partners. You will also expand the strategic links between the university and Fraunhofer IZFP.

At Saarland University, we view internationalization as a process that spans all aspects of University life. We therefore expect members of our professorial staff to engage in activities that promote and foster further internationalization and to be willing to teach in a foreign language. Special support will be provided for collaborative work with partners within the Saar-Lor-Lux region as part of the 'University of the Greater Region' project (www.uni-gr.eu).

The successful candidate must have a proven track record in one or more of the following fields:

- Creating and characterizing (micro)sensors
- Electronic systems for driving and extracting data from sensors and sensor arrays
- Sensor modelling and model-based and/or adaptive signal processing
- Sensor signal processing based on machine learning or other methods of artificial intelligence
- Stream processing and/or IoT engines
- Sensor system integration, including testing and calibration
- Sensor networks and the use of distributed processing methods
- Implementation and application of sensor technologies in complex systems and processes
- Systems engineering across the entire product life cycle (from raw materials and product development to recycling).

You will also have extensive experience in managing large interdisciplinary research groups, in strategic planning and in the acquisition and implementation of major national and international research and development projects across a variety of fields, as well as expertise in boosting the efficiency of development processes, in technology utilization and in teaching, ideally in the fields of instrumentation and measurement as well as signal processing.

The appointment will be made in accordance with the general provisions of German public sector employment law. In addition to a university degree and doctorate in an engineering science or related subject, candidates must be able to demonstrate that they have experience in and an aptitude for academic teaching. They must also demonstrate an excellent track record in research, typically by having acquired an advanced Habilitation degree, by having been appointed to a junior professorship or having headed an independent junior research group at a university, leading research institution or industrial research unit.

You will have the opportunity to become involved in a wide range of projects of significant practical relevance with broad academic freedom to pursue fields of research interest. Saarland University and the Fraunhofer Society have family-friendly HR policies, offering their employees flexible working hours and assisting them in balancing work obligations with family responsibilities.

Saarland University and the Fraunhofer Society are committed to increasing the proportion of women working in academic teaching and research and expressly encourage women to apply. Preferential consideration will be given to disabled candidates of equal eligibility if they have been assessed as having a degree of disability of at least 50 % on the German disability rating scale. Saarland University and the Fraunhofer Society value and promote the diversity of expertise within their workforces and welcome applications from all qualified candidates irrespective of age, gender, nationality, ethnic heritage or social background, religious beliefs, personal beliefs or values, disability, sexual orientation or identity.

To apply for this position, please submit your application by no later than **4th September 2020** via Saarland University's online applications portal: www.uni-saarland.de/berufungen. Please complete the online synopsis (brief applicant profile) and upload your completed application documents as a single PDF file (max. size: 10 MB). Please include the following documents with your application: a personal statement (addressed to the Dean of the Faculty of Natural Science and Technology, Univ.-Prof. Dr. Guido Kickelbick); your CV/résumé (including details of academic teaching duties and research history); a complete list of publications, a brief description of your five most significant achievements (prizes/awards, publications/patents, projects, etc.), and electronic copies of your certificates. Also, please send your application documents via e-mail to the president of Fraunhofer Society, Prof. Dr.-Ing. Reimund Neugebauer (praesident@fraunhofer.de).

When you submit a job application to Saarland University or to the Fraunhofer Society you will be transmitting personal data. Please refer to the privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the General Data Protection Regulation (GDPR) (www.uni-saarland.de/datenschutz). By submitting your application you confirm that you have taken note of the information in the respective privacy notices.