

Hier
entsteht
Zukunft!



Foto: Oliver Dietze



Saarland University is a campus university that is internationally recognized for its strong research programmes. Fostering young academic talent and creating ideal conditions for teaching and research are a core part of the university's mission. As part of the University of the Greater Region, Saarland University enables students and staff to share and exchange knowledge and ideas between disciplines, between universities and across borders. With over 17,000 national and international students, studying more than a hundred different academic disciplines, Saarland University is a diverse and dynamic learning environment. [Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4,000 it is one of the largest employers in the region.]

The Lab for Measurement Technology in the Department Systems Engineering is inviting applications for the following position commencing at the earliest opportunity.

Academic research assistant (m/f/x)

Reference number W2824, salary in accordance with the German TV-L salary scale¹, pay grade: E13 TV- L, duration of employment: minimum of 3 years, volume of employment: 100 % of standard working time.

Workplace/Department:

Academic research assistants and PhD students receive a full position with a salary according to collective agreement for the public sector in Germany (TV-L, E13) which corresponds to a gross salary of approximately 59.000 Euro in the first year and 63.000 Euro in the second and third year.

The Lab for Measurement Technology (LMT), chaired by Prof. Schütze, is a world leading research group in smart sensor systems bringing together expertise in microsensor operation, read-out, and calibration with extensive know-how in machine learning (ML). The Chair consists of two research groups, one focusing on gas sensing technologies and one on multimodal smart sensing.

The research group Gas Sensing Technology is focusing on the development of innovative multimodal system solutions, calibration and calibration strategies, evaluation algorithms based on machine learning and the associated Design of Experiment. These low-cost sensor systems are used for monitoring volatile organic compounds (VOC) and other volatiles at trace levels for various applications including indoor air quality (IAQ), breath analysis and drug

¹ TV-L = collective agreement on remuneration of public sector employees in the German *Länder*

The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.

monitoring, food quality as well as odor assessment of recycling products. We have strong competence in system characterization and calibration as well as calibration transfer.

In the division of Multimodal Smart Sensing, we focus on the development of automatic machine learning methods in order to extract the desired, physically interpretable information from complex sensor patterns from a wide variety of sensor modalities. The main fields of application are quality control, environmental and safety technology, renewable energies / energy efficiency and condition monitoring of mechatronic systems.

Currently, twelve PhD students, one post-doc and one lab engineer are working for the Chair.

The offered position is affiliated with the research group Gas Sensing Technology (Dr. Christian Bur) but with strong collaboration to the Multimodal Smart Sensing group.

Job requirements and responsibilities:

We are offering a PhD position in smart gas sensing technologies for digital health. The position is linked to the three-year international project SensorTech4Health, coordinated by Bosch Sensortec. Position is subject to the final approval of the project.

The ideal candidate is an excellent, self-driven, and curious problem-solver. A master's degree in engineering (preferably systems, electrical or bio-medical engineering), or physics, or related disciplines, and a solid foundation in sensors, systems, and data evaluation is required.

Experiences with chemical gas sensors, calibration, and machine learning are recommended.

The job as researcher and PhD student involves:

- Characterization of novel gas sensing layers with reference gas mixtures in the lab
- Development of multimodal sensor systems measuring indoor air quality and body emissions, incl. skin emissions
- Data evaluation using advanced machine learning methods in a Matlab (or Python) framework
- Writing of scientific publications
- Presenting and defending your research at international conferences
- Supporting the acquisition of new research projects
- Participation in teaching activities including supervision of thesis workers (B.Sc./M.Sc.)

Your academic qualifications:

- Completed scientific university studies in systems, electrical or bio-medical engineering, physics, or related disciplines
- Language skills (according to GER): English -C1

The successful candidate will also be expected to:

- Outstanding academic achievements and above-average graduation
- High level of motivation and curiosity, and ability to perform self-driven research
- Programming skills in Matlab and/or Python
- Extensive experience in working in a lab, incl. design of experiments, and data analysis
- Expertise in one or more of the following fields:
 - Gas sensors (e.g. MOS/MOX sensors, FETs, CP, optical)
 - Dynamic operation (e.g. temperature modulation, light excitation, electrical impedance spectroscopy)
 - Sensor arrays ("e-noses")
 - Electrical engineering: hardware development, PCB design, analog signal processing
 - Micro controller programming
 - Machine learning, deep learning, AI, explainable AI
 - Feature extraction and feature engineering
 - Sensor and data fusion, application specific signal processing
 - Analytical chemistry (e.g. GC-MS, IMS, PTR-MS)
 - Bio-medical engineering
 - Sleep monitoring
- Language skills (according to GER): German B2

What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket' of the saarVV)
- Job bike leasing (JobRad)

We look forward to receiving your **meaningful online application** (in a PDF file) by **10.04.2026** to **christian.bur@uni-saarland.de**. Please include the reference number **W2824** in the subject line of the e-mail.

If you have any **questions**, please contact us for assistance. Your contact:

Herr Christian Bur
Lab for Measurement Technology
Tel.: +49 681/302-2256

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at <https://www.kmk.org/zeugnisbewertung>.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. [Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung](#). By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.