Saarland University is a campus university with a strong international focus and a distinctive research profile characterized by its four core research hubs 'Computer Science', 'BioMed – Life and Materials', 'Interdisciplinary European Research' and 'Sustainability'. With numerous internationally respected research institutes situated in the vicinity of the university and dedicated support for start-up companies, Saarland University is an ideal environment for research, teaching and innovation. The proportion of international students studying at Saarland University is well above the national average and is testimony to the university's strong international focus. Saarland University has been officially certified as a family-friendly university since 2004.

The Faculty of Natural Sciences and Technology comprises six departments and promotes interdisciplinary cooperation in both teaching and research. In the Department of Systems Engineering, research is focused on sustainability and the circular economy as well as on quantum engineering technologies. A new Center for Quantum Technologies (QuTe) has recently been established at Saarland University to pursue research across the full spectrum of quantum technologies – from the theoretical and computational foundations (quantum information theory, theoretical physics, computer science, mathematics, quantum computing) to experimental work on physical platforms (quantum physics, quantum optics, quantum engineering). It will also include a satellite facility of the Helmholtz Center 'Forschungszentrum Jülich' further strengthening its research capabilities.

The [Systems Engineering Department in the Faculty of Natural Sciences and Technology] at Saarland University is inviting applications for the following position with a preferred start date of spring 2027 (earlier start possible):

W3 Professorship Electromagnetics in Quantum Technologies

(m/f/x; Reference no.: W2829)

The university also invites applications for five other professorships in **Quantum Information Theory** (m/f/x; Reference no.: W2810) **Photonics for Quantum Systems** (m/f/x; Reference no.: W2830), **Communications in Quantum Technologies** (m/f/x; Reference no.: W2831), **Control in Quantum Technologies** (m/f/x; Reference no.: W2832) and in **Quantum+AI: Artificial Intelligence in Quantum Physics and Technology** (m/f/x; Reference no.: W2811). Applicants whose research focus fits more than one area are encouraged to submit separate applications to the other professor positions.

The research focus of this professorship will be on quantum systems technology for communication, computing and sensing. Of particular interest are modelling and numerical simulation methods at the electromagnetic-field level that enable the computer-aided design of critical components in complex, integrated quantum systems. These may include, but are not limited to, modelling quantum processors or components for quantum photonics in the optical or microwave domain. The theoretical foundations encompass Maxwell's field theory and aspects of spin-photon coupling, as well as numerical methods for partial differential equations. Additional expertise in high-frequency engineering and photonics, as well as the integration of other physical domains, notably mechanics and thermodynamics, is desirable.

The person appointed to this position will be an active researcher with an outstanding track record in the field. As a member of the Center for Quantum Technologies, you will collaborate closely with colleagues in the Systems Engineering and Physics departments and will demonstrate strong potential for interdisciplinary research.

If appointed, you will be expected to contribute actively to teaching and to offer specialized courses that align with your own research areas. You will also contribute to the teaching of theoretical electrical engineering as well as to foundational courses in electrical engineering within the classical engineering disciplines. You will be involved in developing and shaping study programmes in systems engineering and in quantum engineering. The language of instruction is typically English, but German is preferred for basic courses. We expect you either to have sufficient proficiency to teach in both languages or be willing to acquire this level of proficiency within an appropriate period.

The appointment will be made in accordance with the general provisions of German public sector employment law. Please refer to Section 41 of the Saarland Higher Education Act (SHSG, current version available at: at https://recht.saarland.de/bssl/document/jlr-HSchulGSLrahmen).

You will have an excellent international reputation in the field of electromagnetics in quantum systems with a strong record of high-quality publications in relevant areas.
A university degree in engineering or a related discipline in the natural sciences (particularly physics or mathematics) and a doctorate (PhD or equivalent) evidencing research of high originality and significance are required, as is evidence of teaching at university level.
Additional selection criteria include a strong track record of securing external research funding – ideally with leadership roles in collaborative research programmes or centres (e.g. as coordinator or principal investigator) – international experience, the ability to work effectively in interdisciplinary settings, and experience of academic administrative and committee work.

Experience in and an understanding of university-level teaching, a commitment to contribute innovative teaching concepts at all academic levels (Bachelor's, Master's and doctoral), dedicated supervision of students, and support for early career researchers will be considered an advantage.

Saarland University views internationalization as a process spanning all aspects of university life. We therefore expect members of our professorial staff to promote and foster further internationalization. Special support will be provided for projects that expand collaboration within existing international cooperative networks, e.g. projects with partners in the European University Alliance Transform4Europe (www.transform4europe.eu) or the University of the Greater Region (www.uni-gr.eu).

In accordance with the objectives of its gender equality plan, Saarland University is actively seeking to increase the proportion of women in this field. Qualified women candidates are therefore strongly encouraged to apply. Preferential consideration will be given to applications from disabled candidates of equal eligibility. Furthermore, we welcome applications from all qualified candidates irrespective of nationality, ethnic heritage or social background, religious beliefs, personal beliefs or values, age, sexual orientation or identity.

Please complete the application form in Saarland University's online application portal at www.uni-saarland.de/berufungen and submit it with your application documents by no later than **28 May 2026.** Application documents must be uploaded as a single PDF file (max. size 10 MB) and should include the following documents in the order specified:

- Curriculum vitae, certificates, credentials, list of publications
- Three selected publications with a short summary of their impact on your research profile
- Presentation of research strategy
- List of courses taught
- Descriptive statement on teaching strategy and philosophy
- Details of external funding
- Three references (contact details only, no reference letters required)
- Proof of disability if you declared a disability in your application.
- If you hold a university degree from a foreign university, please provide proof of equivalence from Germany's Central Office for Foreign Education (ZAB) if available. If you have not yet requested proof of equivalence from ZAB, you must submit proof at a later date if so requested.

Questions about the position should be addressed to Prof. Steffen Wiese (email: s.wiese@mx.uni-saarland.de). For more information on the Center for Quantum Technologies (QuTe), please contact Prof. Moritz Weber (email: weber@math.uni-sb.de).

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 General Data Protection Regulation (GDPR) (www.uni-saarland.de/en/privacy). By submitting your application, you confirm that you have taken note of the information in the Saarland University privacy notice.