The University of Passau owes its strong visibility and good repute to excellent research, innovative teaching and its tight-knit international academic networks. Some 13,000 students and more than 1,300 staff study and work on our university campus, which is located a stone's throw from the historical Old Town of Passau and combines state-of-the-art technical infrastructure with award-winning architecture. Internationally successful high-tech companies and a vibrant start-up scene, coupled with a rich culture and Lower Bavarian traditions, give Passau and the surrounding area a special appeal that makes it a great place to live and work.

As part of the *Hightech Agenda Bayern* initiative of the State of Bavaria, the University of Passau is consistently expanding its long-term focus areas 'Digitalisation, 'Networked Society' and 'Europe', particularly in the area of artificial intelligence and its implications. This expansion includes interdisciplinary research and teaching foci at the interface between digital transformation; methods of knowledge generation and decision support; economic, cultural and social interactions of artificial intelligence; and basic research in mathematics and computer science. All those involved collaborate across academic disciplines and/or faculty boundaries with a critically reflective mindset, contributing their methodological know-how and applying their subject expertise.

The University of Passau and the *Development Center X-ray Technology EZRT* of the *Fraunhofer Institute for Integrated Circuits IIS* are engaged in close cooperation on X-ray sensor technology research, particularly in the area of computed tomography.

Fraunhofer IIS is a world-leading, application-oriented research institution for microelectronic and information technology system solutions and services. The Development Center X-ray Technology EZRT is positioned between basic research in the field of non-destructive imaging and industrial exploitation with end customers and system integrators.

The **Faculty of Computer Science and Mathematics** at the **University of Passau** invites applications for the fixed-term civil-service post of:

Professorship of Cognitive Sensor Systems
(tenure-track professorship at pay grade W1 with an option on a tenured W2 post)

This post is available to start immediately and has a fixed term of initially three years. At the same time, the holder of the professorship will hold the position of

Director of the Fraunhofer Research Group Knowledge-based Image Processing

at the **Development Center X-ray Technology EZRT** of the **Fraunhofer Institute for Integrated Circuits IIS**.

Applicants should have excellent theoretical and applied knowledge in algorithmics of complex sensor systems. Potential research interests are:

- visualisation, analysis and processing of 3D image data
- development, analysis and implementation of machine learning methods for sensor data analysis

- algorithmic principles for controlling complex sensor systems, e.g. robotics or actuator technology

The postholder will represent the subject in research and teaching and take an active hand in setting up the new degree M.Sc. AI Engineering degree programme. The professorship cooperates with the Development Center X-ray Technology EZRT of the Fraunhofer Institute for Integrated Circuits IIS. At the EZRT, you will lead the Fraunhofer research group 'Knowledge-based Image Processing', which is expected to be expanded through third-party funding.

The teaching load is initially five contact teaching hours per week during the semester lecture periods, rising to seven hours after a successful interim evaluation. We expect candidates to be able to teach courses in German and English at the time of appointment.

Candidates will be selected primarily on the following criteria: high-quality publications, didactic aptitude, a track record of acquisition of external funds from German and international donor organisations for application-oriented projects, and the successful implementation of these projects. The postholder is expected to work together closely with the Chair of Digital Image Processing and the FORWISS Institute, and it is desired that he or she cooperate more broadly with other Chairs with related research interests.

In the first phase of the *Juniorprofessur* (assistant professorship), you will be appointed as a *Beamter auf Zeit* (a fixed-term civil service post) for a period of three years. If the legal requirements for appointment as a Beamter (civil servant) are not met, the postholder will be employed on a non-Beamter public-sector employment contract ('Angestellter im öffentlichen Dienst'). After a positive interim evaluation, this is to be extended to a total of six years in accordance with Art. 15(1) of the Bavarian Higher Education Employment Act (BayHSchPG).

Academics at our four faculties conduct research, teaching and knowledge transfer activities at the cutting edge and according to the most exacting standards. Europe, sustainability and digitalisation are particular focal points of intensive inter- and transdisciplinary collaboration within the University and with our many national and international partners. As a sustainable, internationally visible and attractive university in and for Europe, the University of Passau seeks to make important contributions to solving the numerous challenges facing humanity both globally and locally.

The **Faculty of Computer Science and Mathematics** is particularly strong in terms of external funds acquired and in the number of scientific publications; furthermore, it enjoys an excellent worldwide reputation for its research output, and its teaching quality is proven by the outstanding results achieved in German university rankings. The faculty responds to the multifarious challenges of a dynamic research landscape on the basis of the following core areas of competency: Algorithmically-orientated mathematics and theoretical mathematics as the formal theoretical fundament as well as computer science with a focus on software, information systems and IT security for the application of the theoretical foundations to a diverse range of phenomena.

The successful candidate will be educated to doctoral level and have demonstrated both pedagogical aptitude and academic excellence, whereby the latter is generally established on the basis of the quality of his or her doctoral research. In accordance with Art. 10(3) of the Bavarian Higher Education Employment Act (BayHSchPG), candidates must not be more than 52 years of age at the time of their appointment. Pursuant to Art. 14 sentence 3 BayHSchPG, if the candidate was employed as a 'Wissenschaftlicher Mitarbeiter/Wissenschaftliche Mitarbeiterin' or 'Wissenschaftliche Hilfskraft' before or after the doctoral study phase, the time period comprising this employment and the doctoral study phase must not exceed six years.

The tenure-track career path is prescribed in the University's tenure track statutes, which include provisions on quality assurance structures, procedures and standards. This concept requires that

candidates for this career path have completed a doctorate at a university other than the University of Passau and/or have worked in an academic position outside the University of Passau for a minimum of two years.

The University of Passau and the Fraunhofer-Gesellschaft actively promote gender equality as well as diversity in the workforce; therefore, applications are welcome from all candidates who fulfil the requisite qualifications, without regard to gender, cultural or social background, religion, world view, disability or sexual identity. As the University and Fraunhofer-Gesellschaft wish to raise the proportion of women in research and teaching, female academics are expressly encouraged to apply.

This position is suitable for people with disabilities; registered disabled persons are given preference over non-disabled applicants who do not otherwise have statutory preferential status if their overall personal aptitudes, skills and qualifications are equal.

To be considered, your application must reach the University by **11 October 2021**. Your full application should include all relevant supporting documents (curriculum vitae, list of publications, teaching assignments, teaching evaluations etc.) and should preferably be sent by e-mail to dekanat@fim.uni-passau.de. It should be addressed to the Dean of the Faculty of Computer Science and Mathematics of the University of Passau, Innstr. 33, 94032 Passau, Germany. When e-mailing your application, all application documents should be attached as a single pdf file. Your application will be forwarded to the management of the Institute for Integrated Circuits of the Fraunhofer-Gesellschaft in compliance with data protection regulations. E-mailed applications are kept on file for six months after the conclusion of the appointment procedure, whereupon they are deleted from our systems.

Please visit https://www.uni-passau.de/en/university/current-vacancies and https://recruiting.fraunhofer.de/Vacancies/22883/DataProtection/1 for the two organisations' respective data privacy statements.