



Paderborn University is a high-performance and internationally oriented university with approximately 18,000 students. Within interdisciplinary teams, we undertake forward-looking research, design innovative teaching concepts and actively transfer knowledge into society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our more than 2,600 employees in research, teaching, technology and administration a lively, family-friendly, equal opportunity environment, a lean management structure and diverse opportunities.

Join us to invent the future!

In the **Faculty of Computer Science, Electrical Engineering and Mathematics** at the Chair of Control and Automation is a vacancy for a permanent position of an

Academic Council (f/m/d)

(according to salary group A13 TV-L)

with 100% of the regular working hours starting as soon as possible.

Position description and responsibilities:

- Active contribution in teaching activities through courses related to control, systems theory, reinforcement learning and robot navigation and planning
- Teaching on the order of 5 semester hours (SWS) per week
- Active contribution to the joint acquisition of third-party projects
- Research on deep reinforcement learning, multi-agent system, dynamical systems, distributed optimization, stochastic control, and stochastic approximation
- Research on the theoretical foundations and practical implications of learning systems for control and decision making of autonomous systems from sequential data
- Testing of the proposed methods using robots in real-time throughout field tests
- Active contribution to open-source software repositories addressing the above topics
- Scientific exchange and active cooperation with related research groups
- Writing scientific papers for journals and conferences
- Administrative, planning, and organizational tasks in teaching and study operations are expected

Your qualifications:

- Completed academic university studies in the field of control engineering, electrical engineering, mechatronics, computer science, or similar
- Doctorate degree in the field of control engineering, electrical engineering, mechatronics, computer science, or similar
- Relevant full-time employment of at least 3 years and 6 months after completion of the degree or of at least one year after completion of the doctorate

The general civil service law must be fulfilled.

Preferable:

- Excellent written and spoken German and English
- Several years of teaching experience at a university
- A solid publication track record in peer-reviewed journals and conferences
- Profound knowledge of dynamical systems, control theory and mathematical optimization
- Profound knowledge of reinforcement learning algorithms for control and decision making of autonomous systems
- Profound knowledge of software-related engineering tools and programming languages (e.g., C/C++ and Python)
- Independent and team-oriented approach to work
- Experience in machine learning, and deep learning (for example, knowledge of deep learning libraries such as PyTorch and TensorFlow)
- Experience in efficient and accelerated training of large non-linear models from massive amounts of data is a big plus
- Experience with Robot Operating System (ROS) is a plus

Applications from women are particularly welcome and, in case of equal qualifications and experiences, will receive preferential treatment according to the North Rhine-Westphalian Equal Opportunities Act (LGG), unless there are preponderant reasons to give preference to another applicant. Part-time employment is generally possible. Applications from disabled people with appropriate suitability are explicitly welcome. This also applies to people with equal opportunities in accordance with the German social law SGB IX.

Applications with complete documents (cover letter, CV with the full publication list, contact details of three references in a single PDF file: name_surname.pdf) should be sent via email with the subject "A13 UPB application" quoting reference number 6426 by 26th of April 2024 to: erdal.kayacan@uni-paderborn.de.

Information regarding the processing of your personal data can be located at: <https://www.uni-paderborn.de/zv/personaldatenschutz>.

Prof. Dr. Erdal Kayacan
Paderborn University
Faculty of Computer Science, Electrical Engineering and Mathematics
Warburger Str. 100
33098 Paderborn

