Job requirements

Professorship for Statistical Methods in Artificial Intelligence

Technology
Arts Sciences
TH Köln

Application deadline: Feb 02, 2025

The professorship is based in the **Institute for Data Science, Engineering, and Analytics (IDE+A).**
Starting date: **as soon as possible**

Questions on the recruitment process to:
Cornelia Luwala
T: + 49 221-8275- 3061
E: cornelia.luwala@th-koeln.de
Gustav-Heinemann-Ufer 54
50968 Köln

Position-related questions to:
Prof. Dr. Dietlind Zühlke
T: +49 2261-8196-6236
E: dietlind.zuehlke@th-koeln.de

The general legal requirements in compliance with paragraph 36 of the North Rhine-Westphalia Higher Education Act (Hochschulgesetz – HG) are as follows:

1. A University Degree
2. Proven track record of experience in teaching (if not available, teaching within the course of the first year will be evaluated in the context of a contractual probation period)
3. Particular proficiency in scientific work, usually demonstrated by the quality of the doctorate
4. A strong track record in the application or development of research findings and methods gained during a minimum of five years of professional employment in a relevant field – at least three years of these five years must have been outside of a university environment.

Professional, didactic and methodical competencies:

Applicants will have completed a university degree, preferably in psychology, and hold a doctorate. They must have at least five years of relevant professional experience, with at least three years outside the university sector.

Professional Competence

Applicants will have practical experience in applying statistical and artificial intelligence methods, proven by various AI projects, ideally in different application contexts, especially in engineering. This experience will also include team processes and collaborations with stakeholders, as well as sound knowledge of programming languages, libraries, and tools for data analysis.
For the “Statistical Methods in Artificial Intelligence professorship,” we are looking for a committed personality with strong professional skills who will consistently represent the topic in the faculty's Bachelor's and Master's degree programmes and research. To teach these subjects, you should have sound knowledge and practical experience in data analysis, data visualisation, and mathematical modelling.

Research competence

We would like to hear from the applicant about subject-related publications, presentations, and/or projects related to applied scientific research in statistical methods in artificial intelligence. Applicants will have the competence to advance statistical methods and further develop their application in AI. Ideally, they have already researched and published on reliability (reliability), traceability (transparency) and reproducibility, and the dependability of AI applications. They also look at the social impact of applying corresponding procedures in reality, ethical aspects and the consequences for social structures in work and life.

Due to the practical nature of engineering degree courses, research skills geared toward concrete and valuable innovations in the application of artificial intelligence are advantageous.

Experience in acquiring and implementing research projects is desirable. You can coherently demonstrate how your past and planned research activities contribute to further developing the research profile of the Faculty of Computer Science and Engineering and TH Köln as a whole.

International competence

Applicants will have experience establishing international collaborations and an existing international network; community contacts are an advantage. We expect them to have an excellent command of English, as teaching and project supervision will be in English. If they are not a native speaker, an excellent knowledge of German is required, as the introductory Bachelor's course is taught exclusively in German.

Didactic competence/communication skills

The TH Köln is committed to high-quality teaching. The faculty plans to redesign mathematics teaching with a stronger focus on application and modern teaching methods. The Bachelor's degree courses in the Engineering Sciences teaching unit are increasingly being converted to a project-based structure, which has already been implemented in the "Automation and IT" Master's degree course. An orientation towards research-based learning is also part of the Faculty of Computer Science and Engineering self-image. Therefore, we expect you to be prepared to teach in a skills-oriented manner and create activating learning arrangements in a practice-oriented learning environment.
Theory and practice should be appropriately linked to initiate learning processes and facilitate learning success. The applicant should have a high pedagogical aptitude and motivational skills in teaching practical and scientific knowledge and theories. Teaching experience at universities or further education institutions is desirable. Experience in dealing with learning processes and the ability to facilitate learning success is advantageous. You would like to work with us to modernise the teaching of mathematics and develop it to meet the needs of our students.
Applicants will be able to structure complex subject matter appropriately to undergraduate students' learning objectives, target groups, and situations and convey it at a proper level of abstraction. This also means that they are able and interested in working on complex content from real projects with first-year students. You have the patience and motivation to support students in the often challenging mathematics-based subjects. Applicants are interested in innovative teaching concepts and are prepared to research and incorporate them into their teaching. The development and supervision of projects and theses are expressly desired. An engagement with ideas of data literacy and the role of digitalisation in society is desirable.

Management competence

Applicants have excellent planning, organizational, and leadership skills, which can be demonstrated, for example, by taking on significant team-oriented leadership roles in companies, larger design or research projects, and/or management functions in academic self-administration. Motivation, communication, and conflict resolution skills when dealing with colleagues and employees are a matter of course. We want them to bring their forward-looking perspective to developing the teaching and research area "Statistical Methods in Artificial Intelligence". In addition, we are looking for interest and enthusiasm in further developing study programs and self-administration.

Social skills

The applicant will be able to work in a team, be motivated, deal with conflict and cooperate with the institute's staff and external institutions. They can establish and maintain information and contact networks. In the Faculty of Computer Science and Engineering, special emphasis is placed on intensive and personal support for students and staff. The expertise and ability to initiate and manage international and interdisciplinary cooperation projects are desirable. A sensitive and reflective approach to cultural diversity and the diversity of our students and staff is a prerequisite.

Other skills

Applicants should be interested in collaborating with colleagues and external institutions beyond the boundaries of their specialist area. They recognise the importance of digitalisation as an innovative driver in a wide range of application areas and industries and the resulting need for interdisciplinary cooperation. Cooperation with related specialist areas in research and teaching is expressly desired. It is particularly advantageous if you can assess the potential of inter- and transdisciplinary cooperation to make effective and innovative contributions to global future topics.

Technology
Arts Sciences
TH Köln

Questions on the recruitment process to:
Cornelia Luwala
T: + 49 221-8275- 3061
E: cornelia.luwala@th-koeln.de
Gustav-Heinemann-Ufer 54
50968 Köln

Position-related questions to:
Prof. Dr. Dietlind Zühlke
T: +49 2261-8196-6236
E: dietlind.zuehlke@th-koeln.de

With the advertisement for this position and the publication of the requirement profile, TH Köln – University of Applied Sciences specifies which competencies are necessary to fulfill the duties of the professorship successfully. Depending on the focus of the professorship, these competencies are weighted and checked in the selection procedure. Pre-selection is based on the written application documents submitted by applicants. The necessary competencies of the shortlisted candidates will be assessed in an application procedure that includes a lecture, a research presentation and a structured interview. If applicants are shortlisted and invited to a personal interview, they will be asked to submit a written teaching and research concept in advance. As per their invitation, short-listed candidates will receive more detailed information concerning the lecture, the research presentation, and the structured interview.

Please take note of the application information at the end of this list of requirements for the position.

Additional information

Place of residence

The applicant is expected to move to the city or region where your campus is located.

Remuneration

Professors are remunerated following the W2 remuneration scheme (www.lbv.nrw.de: the remuneration scale for North Rhine-Westphalia as well as information on the family supplement are available on the website of the North Rhine-Westphalia State Office for Salaries and Pensions – LBV NRW – at). In addition to the family supplement, the remuneration provisions make allowance for other benefits (performance-related benefits), in particular, benefits related to the appointment and benefits granted on the grounds of outstanding contributions and/or securing third-party funding for research purposes. The Provisions on Performance-Related Benefits at Universities in North Rhine-Westphalia follow the law (Hochschul-Leistungsbezügeverordnung – HLeistBVO) of December 17, 2004. TH Köln – University of Applied Sciences has also introduced individual regulations in its guidelines on W2-remuneration. Detailed information on the W2 remuneration bracket is available here: th-koeln.de/besoldung

Employment as a civil servant or as a non-civil servant

Professors may only be employed as tenured German civil servants if they hold a full-time position and comply with all legal provisions (e.g. being younger than 50 years old). The possibility of becoming a tenured German civil servant is always determined on an individual basis, and candidates should, therefore contact the above-mentioned contact person in the division for lecturers and assistants in the human resources department. Professors will be remunerated following W2 gross remuneration when employed under non-civil-servant conditions. In contrast to tenured civil servant contracts, professors employed under such provisions must pay social security contributions.

During employment, part-time employment may be granted upon request, e.g. for familial reasons, provided that this does not interfere with fulfilling the position's duties.

Additional employment

Full-time professorship: additional employment of up to eight hours per week may be authorised in compliance with the legal regulations for North Rhine-Westphalia (thus permitting work in positions of practical relevance). If you work freelance with your own office, this will be subject to specific conditions outlined in the legal stipulations concerning additional employment for university personnel.

Part-time professorship: The execution of activities other than those related to the professorship is subject to the regulations governing part-time employment.
If your work as a professor is less than 50 %, then the legal stipulations on additional employment do not apply.

Technology
Arts Sciences
TH Köln

Questions on the recruitment process to:
Cornelia Luwala
T: + 49 221-8275- 3061
E: cornelia.luwala@th-koeln.de
Gustav-Heinemann-Ufer 54
50968 Köln

Position-related questions to:
Prof. Dr. Dietlind Zühlke
T: +49 2261-8196-6236
E: dietlind.zuehlke@th-koeln.de

Application information

Please submit your application materials using our application management system. Return to the job advertisement and click here:

Apply here

In our application management system, we ask you to submit information relevant to the processing of your application and to upload the following documents (maximum file size 10 MB per file, optimum processing with a maximum of 5 MB):

- cover letter
- photo (optional)
- curriculum vitae, including a list of publications and an overview of courses held
  Please list your periods of work experience (inside and outside of the university contexts) in tabular form and provide the month and year of each period. In the case of parallel employment, please indicate the percentage of work time spent at the given institution. Please list the work experience you gained after receiving your first university degree.
- certificates (max. 5 files)
  - copies of university diplomas/certificates
  - job reference letters and/or performance reviews to provide evidence for periods of work experience gained from the first university degree onwards
  - certified translations in German or English of foreign certificates
- other documents
  - e.g. a list of publications, an overview of the courses held, evaluations

Technology
Arts Sciences
TH Köln

Questions on the recruitment process to:
Cornelia Luwala
T: + 49 221-8275- 3061
E: cornelia.luwala@th-koeln.de
Gustav-Heinemann-Ufer 54
50968 Köln

Position-related questions to:
Prof. Dr. Dietlind Zühlke
T: +49 2261-8196-6236
E: dietlind.zuehlke@th-koeln.de