

The research group “Learning Technical Systems” (head: Prof. Setareh Maghsudi) at the Faculty of Electrical Engineering and Information Technology at Ruhr University Bochum has several open positions for research associates (Ph.D. students and post-docs).

Our group focuses on core AI/ML research, and, more specifically, online decision-making under uncertainty. The area includes (inverse/deep/causal) reinforcement learning, multi-armed bandits, cooperation/competition/coordination in multi-agent systems, and similar problems. Our work is generic and applicable in different domains such as medicine, education, and finance, while primarily, we focus on engineering and technical systems, such as the Internet of Things, optimization of communication networks and cloud-edge computing platforms, and robotics.

The research group has recently relocated to the RUB from the university of Tübingen. We are searching for talented, knowledgeable, highly-motivated, friendly, and cooperative individuals to join the team.

Topics:

The topics mainly belong to the following areas:

- (Inverse) reinforcement learning and multi-armed bandits
- Multi-agent systems
- Networks management, optimization, and resilience (e.g., resource allocation and signal processing)

Your Profile:

- An excellent recent M.Sc. or Ph.D. degree in Computer Science (machine learning and artificial intelligence), Mathematics (pure/applied mathematics, operations research), Electrical Engineering (wireless communications, signal processing, information theory), Economics (econometrics), and related fields such as theoretical physics and statistics.
- A solid mathematical background and the interest/motivation/patience to work on theoretical problems
- For applicants with a Ph.D.: A strong publication record in top journal and conferences; For applicants with a M.Sc. degree: Research experience proved by previous publication and/or an excellent M.Sc. thesis.
- Profound programming skills (at least MATLAB or Python, depending on the academic background)
- English proficiency, especially in writing

Additional Information:

- Competitive salary.
- Part-time is also possible.
- Start date and the duration can be negotiated.
- Projects are partially within large consortiums funded by the Germany Ministry of Education and Research (BMBF) and German Research Foundation (DFG), which enables you to attend project meetings, present your results frequently, and build a strong network of collaborators in both academia and industry.
- The interviews will be via Zoom.

Contact Details for Your Application:

Please send your application documents in **one single pdf file** preferably before **30.09.2023** to: setareh.maghsudi@ruhr-uni-bochum.de. Required documents are: - CV including the publication list and the contact information of at least 2 references, - Ph.D. (if applicable) and Master's certificate and transcripts.