With around 17,000 students and 3,800 employees, the Technische Universität Braunschweig is one of Germany´s leading institutes of technology. It stands for strategic and performance-oriented thinking and acting, relevant research, committed teaching, and the successful transfer of knowledge and technologies to the economy and society. We consistently advocate for family friendliness and equal opportunities.

Our core research areas are Mobility, Engineering for Health, Metrology, and the City of the Future. A strong focus is placed on engineering and the natural sciences, with a close link of our core disciplines to the economics, social and educational sciences as well as the humanities.

Our campus is located in the middle of one of Europe's research hotspots, where we have established a successful working relationship—both with the more than 20 research facilities in our neighborhood and our international partner universities.

The Institute of Computer and Network Engineering (IDA) is looking for a

Research Associate / Doctoral Candidate (m/f/d) in the field of

Low-Power Networking and Artificial Intelligence for the Internet of Things

(full-time – fixed-term)

The position is to be filled on a fixed-term basis for an initial period of 2 years with the possibility of extension. The successful applicant will be given the opportunity to pursue a doctorate.

In addition to teaching in Bachelor's and Master's degree programs, you will join the newly founded research group in robust hardware-software systems. This position will explore research themes at the intersection of multi-agent systems, energy harvesting and wireless networking. Activities include software development of energy-efficient protocol stacks for autonomous, low-power agents in resource-constrained systems. You will also explore applications using long range communication, e.g. LoRa, to low-earth orbit satellites. Our research group has a proven track record in the field of batteryless sensing and energy-driven wireless networking. Our emphasis on combining theoretical and practical, real-world considerations have yielded multiple award-winning publications and demos in both IEEE and ACM conferences. Depending on your strengths, the research focus can be more system-oriented or have a more technical focus.

Make a Difference:

- You will carry out research and development in the areas of low power networking and artificial intelligence.
- You will apply for and work on research projects.
- You will publish research findings and participate in national and international conferences.
- You will be involved in teaching at the University (preparation and implementation of courses as well as supervision of students' work).
- You will pursue your problems independently in the team at the institute and actively participate in research activities with external partners.

Your Qualifications:

- You have a degree (Master's or equivalent) in electrical engineering, computer engineering or comparable scientific-technical courses of study.
- You have very good knowledge of the English language (written and spoken). German language skills are beneficial but not necessary.
- You have experience programming in C/C++
- You have basic knowledge of wireless communication and/or networking.

- You work independently and in a structured manner on your topics.
- You are flexible, can perform under pressure and work well in a team.
- You are aiming for a doctorate.

Our Benefits:

- Pay in accordance with the collective agreement TV-L, pay grade EG 13, depending on the fulfilment of personal requirements (see https://oeffentlicher-dienst.info/c/t/rechner/tv-l/west?id=tv-l-2023&matrix=1 for monthly income before taxes and social insurances, available only in German, row E13, the column depends on your level of relevant previous experience).
- A special payment at the end of the year as well as a supplementary benefit in form of a company pension, comparable to a company pension in the private sector.
- An interesting and varied job with independently organized work in a pleasant working atmosphere with a dynamic and motivated team.
- The opportunity for active, interdisciplinary collaboration with colleagues from other research institutions and companies.
- A workplace that is basically suitable for part-time work, although the position is to be filled full-time, as well as flexible working and part-time options and a family-friendly university culture, awarded the "Family-friendly university" audit since 2007.
- A wide range of continuing education and company health care programs as well as a vibrant campus life in an international atmosphere.

What's more to know:

We welcome applicants of all nationalities. At the same time, we encourage people with severe disabilities to apply. Applications from severely disabled persons will be given preference if they are equally qualified. Please attach a form of evidence of your handicap to your application. We are also working on the fulfilment of the Central Equality Plan based on the Lower Saxony Equal Rights Act (*Niedersächsisches Gleichberechtigungsgesetz*—NGG) and strive to reduce under-representation in all areas and positions as defined by the NGG. Therefore, applications from women are particularly welcome in this case.

The personal data will be stored for the purpose of processing the application. By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with the provisions of data protection law. Further information on data protection can be found in our data protection regulations at https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen. Application costs cannot be reimbursed.

Questions and Answers:

For more information, you can contact Prof. Dr. Andres Gomez (andres.gomez@tu-braunschweig.de) via email.

Closing date: 2023-11-15

Are you interested? Please send your application preferably via email (if possible, in one PDF file) to andres.gomez@tu-braunschweig.de

or via mail to

Technische Universität Braunschweig
Institut für Datentechnik und Kommunikationsnetze
Prof. Dr. Andrés Gómez
Hans-Sommer-Str. 66
38106 Braunschweig