

Fully-Funded PhD Position in the field of Molecular Communication and the Internet of Bio-Nano-Things (IoBNT)

We are looking for talented students who want to pursue their PhD studies at the School of Electrical Engineering and Computer Science, TU Berlin, Germany. The positions are part of the Telecommunication Networks group headed by Prof. Falko Dressler.

Conventional wireless communication systems are based on radio frequency waves. Even though perfectly suited for classic telecommunication tasks, communicating nodes of nano- or micro-scale size, possibly interfacing with biological cells, and/or operating in challenging environments (e.g., liquids) need to employ alternative communication paradigms and technologies like molecular communication. In the IoBNT project, we will investigate and develop a communication system targeting precision medicine and microscale industrial applications. The IoBNT is tailored to coordinate monitoring and actuation in the human body through a communication platform that also connects nanodevices and external gateways. The IoBNT will integrate radio, ultrasonic, and molecular communication schemes in the context of 6G+ wireless networks. The candidate is expected to contribute to these ongoing research activities in the scope of the ongoing projects IoBNT and NaBoCom.

A deep understanding of either wireless networking principles, data-driven approaches, OR biological signaling pathways is required; experience one of the above mentioned research domains is considered a plus. We expect the candidate to have excellent programming experience (Python, C++, Matlab) and very strong Linux expertise.

Successful candidates are expected to contribute to research projects and teaching as active members of a young team. In return, we provide a relaxed and inspiring working atmosphere allowing you to address interesting and challenging research problems.

The salary is very competitive; according and to the German TV-L 13 system (roughly 2,200 Euro after tax).

Applicants should have earned an M.Sc. degree in computer science, computer engineering, electrical engineering, or in a related area, and have demonstrated prior achievements (e.g., top grades) in any of the above areas.

All applicants should possess excellent written and oral communication skills in English, a strong mathematical background, and programming experience. Enthusiasm for leading-edge research, a mix of creativity and persistence, and team spirit are essential.

For more information, please refer to our web site at <http://www.tkn.tu-berlin.de/>.

Interested applicants should send a letter of motivation, a curriculum vitae, scanned transcripts, and contact information of at least two references electronically to Prof. Falko Dressler <dressler@ccs-labs.org> using the subject line "PhD @ TKN".