



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen

part-time employment may be possible

The Chair of Mixed Signal Circuit Design at Technische Universität Berlin is looking for an innovative research scientist who is interested in performing research in the field of ultra-high speed CMOS circuit design for future wireless communication systems. We are looking for candidates holding a Master's degree (or equivalent), who can think out of the box, and who strive for a PhD degree in a sophisticated research area.

The position is funded by the German Federal Ministry of Education and Research (BMBF) as part of the initiative "6G Research Hubs; Platform for Future Communication Technologies and 6G".

1 RESEARCH ASSISTANT

in the field of high-speed analog & mixed-signal IC design

Research topics of our Chair are largely centered around the design of innovative ultra-low-power and high-speed analog & mixed signal circuits and systems. Of particular interests are high-speed CMOS data conversion techniques up to 100GS/s and clock generation systems with an emphasis on energy efficiency as well as silicon area / cost reduction, mixed signal error- and mismatch estimation algorithms, (self)-adaptive calibration techniques as well as highly scalable DSP-based design techniques implemented in standard CMOS processes.

Faculty IV - Institute of Computer Engineering and Microelectronics / Mixed Signal Circuit Design

Reference number: IV-318/22 (starting at the earliest possible / until 31/07/25 / closing date for applications 07/03/23)

Working field:

- Self-driven research in the field of integrated high-speed CMOS ADC design for future wireless communication systems
- Implement and characterize your implemented high-speed CMOS ADC towards 100GS/s using the newest laboratory equipment
- Publish the research results nationally and internationally

Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in Electrical Engineering or Physics
- Expertise in the field of analog circuit design, Deep sub-nm CMOS technology
- Expertise in the field of high-speed CMOS design and data converters is a plus
- Expertise in the design flow covering schematic design, simulation and layout
- Expertise in ADCs, such as CT incremental sigma-delta ADC
- Expertise in Design of all-digital fractional-n PLLs
- Background in signal processing and communication theory is a plus
- Enthusiastic, energetic, and team-oriented personality
- Self-driven with very good communication skills in German and English

We offer:

- Challenging research project funded by the BMBF (6G Research and Innovation Cluster (6G RIC) - Offene und sichere 6G-Technologien)
- Close collaboration with other research facilities and industry, in particular Intel, Infineon, R&S and others
- Internationally renowned and motivated team
- Our institute is located in the heart of Germany's capital Berlin - not far from the Brandenburg Gate

Please send your application with the **reference number** and the usual documents (combined in a single pdf file, max 5 MB) **only by email** to sara.tennstedt@tu-berlin.de.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ or quick access 214041.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities.

Technische Universität Berlin - Die Präsidentin - Fakultät IV, Institut für Technische Informatik und Mikroelektronik, FG Mixed Signal Circuit Design, Sekr. EN 4, Einsteinufer 17, 10587 Berlin

The vacancy is also available on the internet at
<https://www.personalabteilung.tu-berlin.de/menue/jobs/>

