Technische Universität Dresden - Faculty of Electrical and Computer Engineering, Institute of Circuits and Systems, Chair of Organic Devices within the Cluster of Excellence REC²

Technische Universität Dresden

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, it is a globally oriented, regionally anchored top university, focusing on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. The Cluster of Excellence “Responsible Electronics in the Climate Change Era (REC²)” addresses the key challenge posed by the ubiquitous use of electronics, which leads to an enormous resource and energy consumption and the generation of electronic waste. REC² establishes the scientific foundation for the electronics of the future, including new material platforms, component concepts, and integrated systems that enable the realization of responsible electronics in an ecologically, economically, and socially sustainable manner. In a range of research and academic programs, REC² unites the natural and engineering sciences with the humanities, social sciences, and medicine. This wide range of disciplines is a special feature not only of the Cluster, but also of TUD, facilitating interdisciplinarity and transfer of science to society. As a modern employer, TUD offers attractive working conditions to all employees in teaching, research, technology, and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. For TUD, diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who are committed to contributing their achievements and productivity to the success of the entire institution. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

Research Associate (m/f/x)

At the Faculty of Electrical and Computer Engineering, Institute of Circuits and Systems, the Chair of Organic Devices offers within the Cluster of Excellence REC² a position as Research Associate (m/f/x) (subject to personal qualification employees are remunerated according to salary group E 13 TV-L) starting January 1, 2026. The position is limited to 3 years, with a possible one-year extension and comprises 65% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

City: Dresden; Starting date (earliest): 01/01/26; Duration: limited to 3 years, with a possible one-year extension; Remuneration: subject to personal qualification employees are remunerated according to salary group E 13 TV-L; Reference number: PhD2601_REC2_2; Closing date: 04/12/25

Working field

— fabricate metal oxide and organic thin films (e.g. polymer, small molecules, COFs) by solution-processing methods, and produce transistor device structures using such thin films
— characterize the resulting devices and potentially circuits both morphologically and electrically with techniques such as I-V, C-V, C-f in the dark and under illumination

— develop schemes of reuse of individual device layers by delamination and/or triggered addressable disassembly
— exchange and collaborate with a diverse team of scientists from the REC² Cluster, in particular with those from the RAP 1 of the Cluster on the development of dissolvable field effect transistors (DFETs)

Requirements

— an outstanding university master degree (or equivalent) in chemistry, physics, electronics, materials science or related field of physical sciences
— previous experience in fabrication of organic or inorganic thin film electronic devices
— ideally also prior experience with solution processing of thin films and/or soft materials
— at least basic knowledge in device physics/semiconductor physics
— very good interpersonal and communication skills; in particular, the ability to effectively work in collaborative research efforts
— an independent, target- and solution-driven work attitude, inter- and multidisciplinary thinking
— strong motivation, and an interest to join one of the most ambitious interdisciplinary research clusters
— fluency in English - written and oral

What we offer

You will join a team of enthusiastic scientists who pursue creatively their individual research agenda inspired by the cluster's innovative approach and support. Your PhD research will be fostered by the REC² philosophy to promote aspiring researchers, which includes:
— access to state-of-the-art research of leading academic institutes
— possibility to apply for GreenRiskFunds to pursue your own high-risk/high-gain research ideas
— possibility of exchange with partner institutions in the Global South
— promotion of gender equality and a family-friendly work environment
— supervision via a dual supervision concept, including a structured PhD project plan, international exchange, and a dedicated Thesis Advisory Committee (TAC)
— mentorship via the REC² mentoring board

Application

TUD strives to increase the representation of women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.
Please submit your detailed application (in English only) with a motivation letter, CV, copy of degree certificate, transcript of grades (i.e. the official list of coursework including your grades), and proof of English language skills by December 4, 2025 (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to anne.schulze@tu-dresden.de quoting the reference number PhD2601_REC2_2 in the subject header or to:
TU Dresden, REC² – 2301404, Anne Schulze, Helmholtzstr. 10, 01069 Dresden, Germany.
Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-concept alliance.
Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.

More information at https://stellenticket.de/199234/TUBS/
Offer visible until 04/12/25