TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in Germany.

The new Center for Synergy of Systems (SynoSys) develops transdisciplinary approaches and methods in the fields of network science, data science and citizen science in order to conduct integrative research into complex phenomena at the interfaces between biomedicine, social sciences and life sciences. SynoSys will contribute to the emergence of a scientific vision for healthy human development in which physical and mental health are collectively considered in an increasingly digital and networked social and physical environment. As part of SynoSys the new Junior Research Group **Computational Social Science** will focus on the societal impact of digitalization. The group aims to better understand the dynamics of the complex dissemination of information on large online platforms and its impact on culture, political behavior and democracy. We employ a broad set of methods, spanning agent-based modeling, time-series analysis, network science and natural language processing, to behavioral experiments in the lab and in the field. Data sources are diverse, either collected from platform APIs, recruited participants or data donation approaches. To cover this spectrum, we aim for an inherent transdisciplinary approach and methodological innovation. Philipp Lorenz-Spreen will take over as head of the junior research group "Computational Social Science" at the Center Synergy of Systems on October 1, 2024.

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.

At the Center for Synergy of Systems (SynoSys), the Junior Research Group Computational Social Science offers a position as

**Research Associate / PhD Student (m/f/x)**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting at the **earliest possible date**. The position is limited until December 31, 2028. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position aims at obtaining further academic qualification (usually PhD).

**Tasks:** scientific research activities within the Junior Research Group Computational Social Science with the research topic of **computational social science to describe and model the spread of populist rhetoric through social network structures on online platforms** and a strong interest in descriptive data science and modelling to address questions from social and political science about echo chambers and populism. Furthermore: writing of scientific publications in the relevant Journals; conducting detailed literature searches; participation in professional conferences and presentation of the research work and its projects; support of the center for applications for third-party funding.

**Requirements:**

- university degree in quantitative social sciences or applied computational sciences
- strong interest in working in a trans-disciplinary research environment at the interface of computer science, and social sciences as well as data science applications
- proficiency in a programming language, like Python or R
- ability to work in a collaborative interdisciplinary environment
- good command of spoken and written English
- ideally experience with data collection from social media, algorithmic auditing, natural language processing and possibly with online field-experiments
We offer: A unique opportunity to contribute to complex science research incl. topics like information propagation on social networks, the dynamics of language or the emergence of polarization.

- 30 days of paid annual leave and a year-end bonus payment; additional pension provision (VBL)
- the opportunity for personal qualification in a dynamic and international research environment with a high degree of creative freedom
- an interesting and responsible position where you will get to know the diverse tasks and developments in the research field and specific area of expertise
- flexible working hours and home office arrangements
- diverse offerings for health promotion and work-life balance, for example, through our family office or our health management program
- numerous opportunities for further education, including language courses, IT training, and seminars for professional development
- possibility to participate in the wide range of activities offered by the university sports program

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. 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 applications containing all documents. The documents must be in English and contain:

- a letter of motivation for the application (cover letter);
- curriculum vitae, if applicable a list of publications;
- degree certificate;
- names and contact details of one reference that we can contact.

Please submit your detailed application including the mentioned documentation quoting the reference number “w24-259” by August 16, 2024 (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 synosys@tu-dresden.de or to: TU Dresden, Center for Synergy of Systems (SynoSys), Herrn Prof. Dr. Dirk Brockmann, 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.

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.