Saarland University is a campus university that is internationally recognized for its strong research programmes. Fostering young academic talent and creating ideal conditions for teaching and research are a core part of the university's mission. As part of the University of the Greater Region, Saarland University enables students and staff to share and exchange knowledge and ideas between disciplines, between universities and across borders. With over 17,000 national and international students, studying more than a hundred different academic disciplines, Saarland University is a diverse and dynamic learning environment. [Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4,000 it is one of the largest employers in the region.]

The **Marie Skłodowska-Curie Actions (MSCA) research program and the SecReSy4You PhD Network** is inviting applications for the following position commencing at the earliest opportunity

Academic research assistant (m/f/x)

Reference number W2845, salary in accordance with the German TV-L salary scale[1], pay grade: E13 TV-L, duration of employment: 3 years, volume of employment: 100 % of standard working time.

Workplace/Department:

MSCA Doctoral Student in SecReSy4You Network on Critical Cyber-Physical Systems Security and Resilience with a Focus on Constrained Attacks

Are you interested in working in a European doctoral network on the security and resilience of critical infrastructure, supported by leading researchers across Europe? Are you looking for an employer that invests in its people and offers excellent working con- ditions in an international research environment? We welcome you to apply for PhD positions in the SecReSy4You Doctoral Network, funded by the Marie Skłodowska-Curie Actions (MSCA). This advertisement focuses on the position hosted by the Department of Computer Science, Saarland University, Germany. For a complete list of available positions, please visit the network's website www.secresy4you.eu.

What is the Doctoral Network about

Critical infrastructures and cyber-physical systems face increasing risks from cyberat- tacks exploiting vulnerabilities in digital communication networks, embedded hardware, and software. These attacks have far-reaching consequences, including the potential to collect sensitive information, cause physical damage, and endanger human lives.

[1] TV-L = collective agreement on remuneration of public sector employees in the German *Länder*

In response to these challenges, the European MSCA Doctoral Network SecReSy4You aims to train a new generation of 10 researchers in cybersecurity and resilience for cyber-physical systems (CPS). The 10 doctoral candidates will collaborate on modeling threat actors, developing scalable AI-based monitoring and control systems, and designing strategies to ensure long-term CPS protection. Through a comprehensive training program combining technical expertise with transferable skills, they will be well-prepared for careers in this rapidly evolving field. SecReSy4You will drive innovation in CPS se- curity through cutting-edge research, industry collaboration, and the development of practical tools tailored to real-world challenges.

The network brings together leading research institutions and companies from Austria, Cyprus, Estonia, Germany, Italy, Spain, Sweden, and the Netherlands. It comprises 10 closely connected research projects and a joint doctoral training program.

What is the Doctoral Project about

The project addresses the theoretical foundations of attacker modeling for cyber-physical systems, with emphasis on formal adversarial models, system-theoretic security analysis, and anomaly attribution. The project will investigate how attacker capabilities and system constraints can be modeled across sensing, communication, and control layers, and how scalable abstractions and model order reduction techniques can support the analysis of complex CPS while preserving security-relevant behavior. The candidate will contribute to the systematic derivation of threat models, the study of fundamental attacker limitations, and the development of principled approaches to early anomaly detection and root-cause analysis.

Job requirements and responsibilities:

- Interdisciplinary research on CPS and control systems with a focus on constrained attacks.
- Publication of scientific results in top journals and at flagship conferences.
- Contributions to network-wide events. Performing (transnational) academic and/or industrial secondments.
- (Possibly) contributions to teaching and/or other departmental tasks.

Your academic qualifications:

- Completed university studies in Computer Science, or any other relevant field (excellent degree)
- Strong background in linear algebra
- High proficiency in programming (C, C++, Python, Julia, or Matlab)
- Language skills (according to GER): High proficiency in English, both written and spoken.
- Knowledge in systems theory will be considered an advantage
- **The MSCA mobility rule requires applicants to not have resided or carried out their main activity (work, studies, etc.) in the country of their host organization for more than 12 months in the 3 years immediately prior to the recruitment date**

What we can offer you:

- A full time position with a competitive monthly gross salary depending on the qualifications and experience of the successful candidate
- Work in an interdisciplinary network of national and international collaborators at an outstanding research institution
- Active supervision and promotion of your scientific development toward a PhD
- A close integration of fundamental research and applications
- Access to state-of-the-art research facilities and resources, including high perfor- mance compute clusters.
- Acollaborativeandsupportiveresearchenvironmentwithaninternational,friendly, and dedicated team
- A balanced and family-friendly work-life relationship

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket Plus' of the saarVV)

We look forward to receiving your **meaningful online application** (in a PDF file) by **30.04.2026** to **maggio@cs.uni-saarland.de.** Please include the reference number **W2845** in the subject line of the e-mail.

Your application should include a cover letter (at most 1 page) of your motivation for applying for this position and the earliest possible starting date, your CV, your degrees and transcript of records with grades.

If you have any **questions**, please contact us for assistance. Your contact:
Frau Prof. Martina Maggio
maggio@cs.uni-saarland.de

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at https://www.kmk.org/zeugnisbewertung.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.