PALUNO
The Ruhr Institute for Software Technology

Open PhD Candidate/Associate Researcher (m/f) Position in the Area "Software Engineering for Cyber-Physical Systems"

The University of Duisburg-Essen (UDE) is one of the youngest universities in Germany, and thinks in terms of possibilities, not limitations. UDE ranks 17th in the Times Higher Education Ranking of the world's 150 best universities that were founded in the past 50 years. paluno, the Ruhr Institute for Software Technology, was founded in 2010. With seven professors and more than 100 academic staff members, paluno conducts application-oriented research in close cooperation with prominent partners from industry and research. paluno's research areas include adaptive systems, mobile computing, cloud services, cyber-physical systems and software product lines. paluno is actively involved in key European initiatives and research projects. Among others, paluno is partner of the European Technology Platform on Software, Services and Cloud (NESSI), and founding full member of the European Big Data Value Association (BDVA). paluno offers researchers a stimulating, international environment. Our offices are located in the city of Essen, the centre of a multi-cultural metropolitan area.

In the context of national research projects, the **Software Systems Engineering** research group (SSE, Prof. Dr. Klaus Pohl) at paluno studies and develops methods and techniques for engineering cyber-physical systems. Collaborative embedded systems interact strongly with each other in order to provide innovative services to their users. These systems have to operate in partly unknown environments and in system networks which constantly reshape at runtime, all while ensuring, among others, a high grade of dependability, functional security, and data security.

Your Job

Your research will build on established techniques and methods for model-based engineering of embedded systems. In close cooperation with our industrial partners, you will develop and extend these research results further. Your research will address one or several challenges such as:

- considering open contexts, as well as fuzzy knowledge about the system context;
- dynamic creation of system networks collaborating at runtime;
- analyzing and verifying both functional and quality properties at runtime;
- automatic system adaption at runtime.

The position as **PhD Candidate/Associate Researcher** (salary classification TV-L 13) is initially offered for **two and a half years with the option for extension**. The position is offered as **full-time** or **part-time** *(at least 50 % of a full-time position)*. It also provides the opportunity to earn a PhD degree and thus to obtain further academic qualification.

Your Profile

You are highly interested in delving into current research questions in the area of software engineering for networked embedded systems and cyber-physical systems, and developing innovative results addressing current challenges. You have recently completed or will soon complete your studies in Applied Computer Science, Computer Science, Software Engineering, Business Information Systems, Data Science, or a related area with good results within the next three months. You are creative, you enjoy working in a team, and you have remarkable analytical skills. Moreover, you like to collaborate with researchers and developers across different disciplines to develop creative solutions for complex problems.

Your Application

We are looking forward to receiving your application. The University Duisburg-Essen aims at promoting the diversity of its members and considers aspects of competence that derive from age or origin of the applicants (see http://www.uni-due.de/diversity/international.shtml). Applications from disabled or equivalents according to § 2 Abs. 3 SGB IX are encouraged. The University Duisburg-Essen has been awarded for its effort to promote gender equality with the "Total-E-Quality-Award". It aims at increasing the share of women in the scientific personnel and therefore explicitly encourages women to apply. Women will be preferentially considered when equally qualified according to the state equality law.

Please address your complete application including transcripts of records with reference number **706-16** to:

Prof. Dr. Klaus Pohl, University of Duisburg-Essen, Software Systems Engineering, Gerlingstraße 16, 45127 Essen, Germany

Attention: Your application documents should be attached to the e-mail as a single, continuous PDF-file.

E-Mail	bewerbung.paluno@uni-due.de	**Application Deadline**	**January 11, 2017**
Web	http://paluno.uni-due.de	**Begin of Employment**	At earliest convenience

Further questions: Prof. Dr. Klaus Pohl, Phone: (+49) 201 183-4660, E-Mail: klaus.pohl@paluno.uni-due.de