Based on substantial funding of the German State of Lower Saxony, a

Center for Accident & Emergency Informatics

is founded at the Peter L. Reichertz Institute for Medical Informatics of TU Braunschweig and Hannover Medical School, Campus Braunschweig (https://staging.aei.plri.de). For this center, we are currently inviting applications for the following positions

4 PhD Candidates / PostDoc (full time)

All positions are open from October 1st, 2019 and initially limited to a period of three years. Extension, however, is possible for all of them. Depending on your qualification and fulfillment of personal requirements, the remuneration is based on the salary level TV-L E13. International applicants will need to complete a visa process before hiring can take place. The workplace is basically part-time suitablebut should be 100 percent occupied

Accident & emergency informatics (A&EI) is a novel and trans-disciplinary science of systematic collecting and managing medical data (e.g., electronic health records) as well as sensor data from the human environment (e.g., event data recorder such as acceleration sensors in the vehicle); their syntactic and semantic integration, and their analytics in order to forecast, prevent, or lower the impact of such events on the subject.

Therefore, the core mission of A&EI is saving lives – on the one hand by combining and jointly analyzing medical and non-medical data, and on the other hand by involving decision makers, actors, and stakeholders from politics, infrastructure and health management, and industry.

The A&EI-Center@PLRI performs joint research with the German Metrology Institute (Physikalisch-Technische Bundesanstalt, PTB) the Municipal Hospital Braunschweig, and Municipal Rescue Service of the City of Braunschweig. The A&EI-Center@PLRI further became a lighthouse project of the Metropolitan Region Hannover Braunschweig Göttingen Wolfsburg.

A core project focuses on the design and implementation of the International Standard Accident Number (ISAN). This token that shall enable data linkage between the different systems that are involved in the rescue chain. One test scenario is a smart home that detects the collapse of its resident and sets up an emergency call. Based on the ISAN, the rescue team can ask for the floor plan, where the room of accident is marked. The IT system catches the arrival time at the site and pass this information to the smart home, which then unlocks and opens the door. Another application of the ISAN is the Virtual Emergency Registry of Braunschweig, where ISAN links data recorded in the hospital with other data on demand. The challenge is to establish the inter-system communication securely and do not allow any type of misuse (privacy by design).

We are seeking outstanding candidates that have:

- completed, or are in the process of completing either a Master degree or a PhD in computer science, medical informatics, or comparable courses of study
- comprehensive knowledge and practical experience in software design
- experience with medical information systems
- programming skills and experience in software development
- excellent oral and writing skills in English language - German language skills are advantageous
- willingness to travel including short stays abroad

- willingness to work closely with the interdisciplinary project team
- self-initiative and a result-oriented working approach

TU Braunschweig is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, disability status or any other characteristic protected by German law. Further, TU Braunschweig aims to increase the share of women in academic positions and therefore particularly welcome applications from women. On equivalent qualifications, female candidates are preferred. Severely disabled persons are entitled to special consideration (proof must be enclosed). During the application process, personal data will be stored electronically.

Please prepare your application documents in German or English as a combined pdf document consisting of a cover letter (including your motivation), a CV, your academic performance record (your grades during your Bachelor and Master studies including grading scale details), a proof of your language proficiency and a copy of your Master's thesis or comparable student theses. Please upload the documents at https://drop.plri.de/ and send the link by e-mail. Review of applications will begin with submission and will continue until the positions are filled. Reimbursement of application costs is not possible.

For further questions and applications, please contact us: Prof. Thomas Deserno, PLRI, Mühlenpfordtstr. 23, 38106 Braunschweig, Germany, phone +49 531 391 2130, mail: thomas.deserno@plri.de