

Job posting

The Chair of Computing in Civil Engineering at Bauhaus-Universität Weimar invites applications for the position of a

PhD student or post-doctoral researcher.

The envisioned start date is June 1, 2020, with an extent of employment of 40 hours/week and a duration of 4 years (E 13 TV-L, 100%).

The position is an integral part of a research group on "intelligent materials", funded by Carl Zeiss Foundation. In total, six chairs of Bauhaus-Universität Weimar as well as several industrial partners are participating in the research group, which aims at developing so-called "Concrete 2.0", representing a high-performance material for transport infrastructure of the 21st century, being smart, adaptive, and multifunctional.

Job description

Within the research group, the successful candidate will be involved in developing new sensor and actuator concepts, referred to as "material-integrated sensor systems", enabling Concrete 2.0 to communicate with components of the real world and the virtual world (Industry 4.0). The primary responsibilities are listed as follows.

- Development of new design concepts for material-integrated sensors and actuators, aiming at autonomously releasing self-healing agents encapsulated in the concrete through specific waveforms
- Optimization of the sensor/actuator combinations
- Design of embedded algorithms and communication mechanisms to enable the sensor/actuator combinations independently detecting changes in the concrete
- Extension of the communication mechanisms towards IoT-based communication in terms of cyber-physical systems

Further information may be found at the project website:

<http://www.uni-weimar.de/cce/research/research-projects-since-2013/intelligent-materials/>

Qualifications

- Excellent graduation at master level (M.Sc./Dipl.-Ing.) in one of the following fields, or similar: Civil engineering, computer science, electrical engineering
- Experience in developing/programming wireless sensor networks and analysis of sensor data as well as programming experience in general
- Excellent command of written and spoken English
- Strong interest in the areas listed in the job description and, in particular, in the areas of sensors, actuators, cyber-physical systems, embedded computing and Industry 4.0 concepts are of advantage. Note: We would be happy to support you in consolidating your knowledge in these areas through training courses.
- Reliability and ability to work in a team
- Interest in conducting research in an innovative, interdisciplinary project

Application details

Bauhaus-Universität Weimar strives to provide a family-friendly personnel policy that promotes equal opportunities. One goal of the university is to increase the number of women in teaching and research. Bauhaus-Universität Weimar expressly invites qualified female scientists to apply for the position. Equally qualified people with disabilities will be given preferential consideration.

Please submit your application, ideally as a single PDF file, with the standard application documents and the reference number **B/DMP-26/19** by February 10, 2020 to:

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Professur Informatik im Bauwesen
Prof. Dr.-Ing. Kay Smarsly
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99423 Weimar

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Privacy Policy

As the encrypted receipt of your e-mail by Bauhaus University Weimar cannot yet be guaranteed, and to protect your personal data in electronic application, we request that applicants submit the application documents as encrypted ZIP files stating the abovementioned reference number. Please note that if the application is not encrypted, information confidentiality cannot be guaranteed.

When an application is submitted electronically, the applicant consents to the scanning of the files accompanying the application for harmful codes, viruses, and spam, to the temporary storage of data pertinent to the application, and to future (unencrypted) e-mail correspondence related to the application.

Additional information on data protection pursuant to Article 13 of the EU Basic Data Protection Regulation (EUDSGVO) can be found at: "Hinweise zum Datenschutz für Bewerberinnen und Bewerber" (Information on data protection for job applicants) on our website (in German): <https://www.uni-weimar.de/de/universitaet/aktuell/stellenausschreibungen/>