

ANALOG / MIXED-SIGNAL POSTDOC POSITION FOR THREE YEARS

JOB DESCRIPTION

The chair CAES and its group Testable Design and Test of dependable integrated systems (TDT) are part of the Faculty of Electrical Engineering, Mathematics and Computer Science and the research Institute CTIT of the University of Twente.

Research Project Description

Within the chair CAES-TDT, there is a postdoc position available for 3 years within the European PENTA initiative in the large HADES project. HADES is an abbreviation for Hierarchy Aware and secure embedded test infrastructure for Dependability and performance Enhancement of integrated Systems.

The objective of our part of the project is to introduce and design test infrastructures in terms of IJTAG-compatible embedded instruments to enhance the dependability of automotive cyber-physical systems over their lifetime. We will develop new (analog/mixed-signal) embedded instruments, and design analogue front ends in combination with sensors which are highly dependable under harsh environments (aging). The instrument and sensor modelling, their software control as well as their characterization will be part of the work as is their usage at the PCB level. Our research will be in close cooperation with three Dutch companies.

The University of Twente HADES team, consisting of a digitally-oriented postdoc in this project and a senior researcher, will work in a consortium consisting of the Dutch companies JTAG Technologies, the SME D4T, NXP Semiconductors and other European partners. Extra support from PhD students and a postdoc in the group is anticipated. The start of the research can be immediately.

You will report on your research in papers in international scientific journals and conferences, as well as in HADES progress reports. When needed, you will also assist in the management of the project.

YOUR PROFILE

You have a PhD degree in Electrical Engineering with a specialization in analog/mixed-signal CMOS design and associated tools, and preferably some industrial experience. Knowledge and experience in sensors and dependability issues are valued. Team working skills are essential. As an excellent researcher we expect you to be inventive and result oriented. You are a conceptual thinker and need good collaboration and communication skills. You keep yourself updated on the latest developments in your field of expertise and you stay in touch with your network.

Information and application

Please contact Dr.ir. Hans G. Kerkhoff (h.g.kerkhoff@utwente.nl) for more information.

Your application must be emailed to h.g.kerkhoff@utwente.nl. Applications need to include a one-page motivation letter, a detailed CV (incl. obtained degrees and publications, if any), and contact details of at least 2 references.

OUR OFFER

As a postdoc researcher, you will be offered an employment contract for the duration of 3 years. Your gross monthly salary can vary, starting from € 3068,-, depending on your background and relevant experience. Additionally, the University of Twente provides excellent facilities for professional and personal development, an 8% holiday allowance, and an 8,3% end of year bonus.

THE ORGANIZATION

The University of Twente. We stand for life sciences and technology. High tech and human touch. Education and research that matter. New technology which drives change, innovation and progress in society. The University of Twente is the only campus university in the Netherlands; divided over six faculties we provide more than fifty educational programs. The University of Twente has a strong focus on personal development and talented researchers are given scope for carrying out pioneering research.

The faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS) comprises three disciplines that shape Information and Communication Technology. ICT is more than communication. In almost every product we use mathematics, electronics and computer technology and ICT now contributes to all of societies' activities. The faculty works together intensively with industrial partners and researchers in the Netherlands and abroad and conducts extensive research for external commissioning parties and funders. The research which enjoys a high profile both at home and internationally, has been accommodated in the multidisciplinary research institutes MESA+, CTIT and MIRA.