Postdoc in Blockchain and Security in the Delft Blockchain Lab

Delft University of Technology, the Netherlands

The Delft Blockchain Lab (DBL) of Delft University of Technology invites applicants for a 2-year postdoc position in security aspects of blockchain technology in the Faculty of Electrical Engineering, Mathematics and Computer Science. DBL takes a holistic approach to investigating and developing scalable, robust, privacy-sensitive and secure blockchain systems. Its blockchain research ranges from systems aspects and applications to theoretical and ethical aspects. For this postdoc position, DBL invites applicants with a strong background in security, privacy and/or fundamental aspects of blockchain.

The Delft Blockchain Lab
The Delft Blockchain Lab (DBL, https://www.tudelft.nl/delft-blockchain-lab), under the leadership of Prof. Dick Epema and Dr. Johan Pouwelse, brings together all blockchain-related research of TU Delft. DBL is largely based in the two Computer-Science Departments Intelligent Systems (in particular, the Section Cybersecurity, in which dr. Zeki Erkin leads the security-related research in blockchain) and Software Technology (in particular, the Sections Distributed Systems and Software Engineering). However, it also performs research into ethical and science communication aspects of blockchain and into applications of blockchain such as intelligent power grids. Its research roadmap calls for the design, deployment and analysis of a complete blockchain-based software stack for trust in the internet, together with research into the fundamental aspects that support this design. DBL strongly builds on more than a decade of research in peer-to-peer and reputation systems at TU Delft, and has grown into one of the larger blockchain labs in Europe. It has produced several world-first innovations such as a fully scalable blockchain architecture and a decentralized blockchain-regulated market, and it has replaced proof-of-work with trust.

The Departments Intelligent Systems and Software Technology
The Departments of Intelligent Systems (INSY) and Software Technology (ST) together constitute one of the leading Dutch departments in research and academic education in computer science, employing over 300 people. The departments together are responsible for the curriculum of the bachelor’s and master’s programmes in Computer Science as well as the master’s programme in Embedded Systems. The inspiration for its research topics is largely derived from technical ICT problems in industry and society related to cybersecurity, computer graphics, artificial intelligence, machine learning, large-scale distributed processing, embedded systems, programming productivity, and web-based information analysis.

The Faculty Electrical Engineering, Mathematics and Computer Science
The Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS) is known worldwide for its high academic quality and the social relevance of its research programmes. Offering an international environment, the faculty has more than 1100 employees (including about 500 PhD students) and more than 3000 bachelor’s and master’s students. Together they work on a broad range of technical innovations in the fields of electrical sustainable energy, microelectronics, intelligent systems, software technology, and applied mathematics.
Job description
The Delft Blockchain Lab is looking for a talented and ambitious researcher whose responsibilities include:

- Conducting security-oriented blockchain research, including the (co-)supervision of PhD students. Potential research topics include fundamental blockchain research, in particular with regard to off-chain transactions and anonymity, as well as research into blockchain applications such as finance, supply-chain management, and privacy-preserving data sharing;
- Co-supervising bachelor’s and master’s students in their graduation projects;
- Contributing to transferring knowledge and technology to external parties.

Requirements
Applicants must have (or receive soon) an excellent PhD in security and privacy or in fundamental aspects of distributed systems (preferably related to blockchain), the ambition to conduct excellent research, and good communication and social skills.

Conditions of employment
TU Delft offers a customisable compensation package, a discount for health insurance and sport memberships, and a monthly work costs contribution. Flexible work schedules can be arranged. An International Children’s Centre offers childcare and an international primary school. Dual Career Services offers support to accompanying partners. Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities. The gross salary per month for this position is €3255 to €4274. In addition to your salary, at TU Delft you will receive an annual holiday allowance of 8% and a year-end bonus of 8.3% of your gross monthly salary.

Information and application
For more information about this position, please contact dr. Z. Erkin, phone: +31 (0)15-2786283, e-mail: Z.Erkin@tudelft.nl. To apply, please e-mail an application letter, a curriculum vitae including a publication list, a research statement, and the names of two references by February 29, 2020 to dr. C.A. Reijenga, vacancies-eemcs@tudelft.nl.

When applying for this position, please refer to vacancy number EWI2020.09.