



Call for Papers: Digitization of the Energy System

The conference INFORMATIK is the annual convention and the most important meeting of the Gesellschaft für Informatik e.V. (GI), the largest computer science association in German-speaking countries. INFORMATIK 2019 will take place at the University of Kassel on September 23 - 26, 2019. It will celebrate the GI's 50th birthday, which was founded in 1969, with an attractive program for participants from science and industry. The theme of the conference is "50 Years of Society for Computer Science - Computer Science for Society". Seven conference tracks cover topics that currently receive special attention in science, practice and society. The best contributions will be forwarded for publication in suitable journals. Conference languages are German and English. Further information:

www.informatik2019.de

Digitization of the Energy System

Europe's energy supply is characterized by the comprehensive transformation of structure, processes and business models. The unbundling and the merging of networks and markets have shaped this development as well as the enormous growth of renewable energies and the associated decentralization. This transformation process can only succeed if the massive use of modern information and communication technology (ICT) and its innovations are used in such a way that the pillars of the energy triangle are pursued and implemented in a balanced manner.

The fast-moving digitization and automation process will be the companion to transforming our energy system, which will be highly flexible and decentralized. The massive interaction between generation, transport, storage and consumption requires digitization by intelligent components as well as networking of the overall system in the superordinate level. The process involves developing disruptive technologies as well as software architectures, applications and new functionalities of intelligent components.

Special challenges exist, i.a. in the processing and preparation of mass data, reliable and secure data transfer, standardization in communication, user friendliness.

Topics of Interest

Topics for this track include, but are not limited to:

Standardization in communication

Automated networking of components with IoT

BigData in Energy Supply

Artificial intelligence (AI) and machine learning for the operation of the power supply system

AI and digital twins for a predictive energy and power management

Data security for reliable energy supply

Data protection for consumers, prosumers and producers



Submissions

We welcome contributions of the following two kinds from science and practice related to the theme of the track:

- ◆ Extended abstracts provide a summary of already published outstanding work which appeared in top international venues 2017 or later that is presented to the community at the conference including an opportunity for discussion (2 pages).
- ◆ Regular articles present new insights and stable results (up to 14 pages). They may not have been submitted or published elsewhere.

Contributions in German or English should be submitted to the Review System of INFORMATIK 2019 <http://easychair.informatik2019.de>. Please refer to the guidelines for the GI-Edition "Lecture Notes in Informatics" at <https://gi.de/service/publikationen/lni/>. All submissions are reviewed by at least three members of the program committee in terms of content quality and thematic suitability.

Publication in Journal

All accepted contributions appear in the series Lecture Notes in Informatics (LNI). In addition, authors of the best contributions will be invited to submit an extended version of their article for fast-track journal publication. We are currently negotiating with multiple journals. Selections will be made by the track co-chairs together with the program committee.

Important Dates

12.04.2019	registration of submissions
19.04.2019	submission deadline
31.05.2019	decision notification
20.06.2019	camera-ready version due date
23.-26.09.2019	INFORMATIK 2019

Track Program Committee

Kurt Rohrig, Fraunhofer IEE (Co-Chair)
Christoph Krauß, Fraunhofer SIT (Co-Chair)
Reinhard Mackensen, Fraunhofer IEE
Andreas Fuchs, Fraunhofer SIT
Mathias Uslar, OFFIS

Track Co-Chairs

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