

Special Issue

Communication System in Smart Grids

Message from the Guest Editor

The electric power grid is evolving into a distributed, user-centric smart grid capable of providing economically efficient, sustainable power with high reliability, security, and safety. Realizing the vision of the smart grid requires reliable and effective information and communication technologies that enable high-speed, low-latency communications. Indeed, communication technologies are a key enabler for many of the foreseen smart grid features, such as demand response, advanced metering infrastructure (AMI), electric vehicle and storage unity integration, and microgrid control. Several solutions for smart grid communications have recently emerged that rely on new generation wireless communication and power line communication technologies. This includes novel approaches to enable smart meters and other machine-type devices to communicate with the grid, as well as new communication solutions to enable vehicle-to-grid and grid-to-vehicle communications. The integration of information and communication technologies in the grid also poses security risks that must be mitigated from a cyber-physical perspective.

Guest Editor

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Deadline for manuscript submissions

closed (30 October 2020)



Applied Sciences

an Open Access Journal
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Impact Factor 2.5
CiteScore 5.5



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mdpi.com/journal/

[applsci](https://doi.org/10.3390/applsci)





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