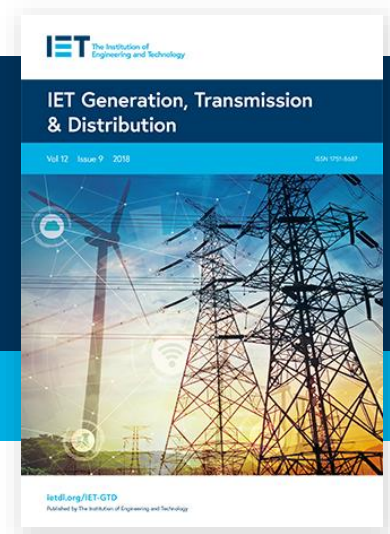


IET Generation, Transmission & Distribution Call for Papers

Submission Deadline: 30th April 2021 | **Publication Date:** January 2022



Editor-in-Chief: Prof Christian Rehtanz, TU Dortmund, Germany
Prof Innocent Kamwa, Hydro-Quebec Research Institute, Canada

Special Issue on: Microgrids as Part of Cellular Electric Energy Systems

Cellular electric energy systems are power systems composed of interconnected, supervised and controlled cells. These cells can be thought of as microgrids interconnected to an overlaying grid. Such kinds of grid-connected microgrids are in normal operation not intended to autonomously supply an isolated area. Instead, they exchange power with the main grid and other cells and participate in the operation of the overall system by the provision of ancillary services (e.g. flexibility provision, active and reactive power control, frequency and voltage control, congestion management, restoration services, grid forming services, etc.). By the coordinated operation of the cells which compose a cellular electric energy system, an efficient, secure and stable overall system operation can be achieved.

This Special Issue aims to explore methods, technologies and solutions for the integration of grid-connected microgrids in the efficient, secure and stable operation of future cellular electric energy systems.

Topics of interest include, but are not limited to:

- Planning and operation of microgrids as part of cellular energy systems
- Monitoring, protection and control of microgrids in cellular energy systems
- Modelling and simulation of microgrids within cellular energy systems
- Flexibility of microgrids within cellular energy systems
- Ancillary services in cellular energy systems incorporating microgrids
- Black start and system restoration in cellular systems containing microgrids
- Operation and control of microgrids for coordination of TSO-DSO interactions in cellular energy systems
- Market frameworks and solutions for cellular energy systems including microgrids
- Sector coupling by multimodal microgrids in cellular energy systems (power-to-x)
- Security and stability assessment of cellular energy systems containing microgrids
- Optimisation of cellular energy systems including microgrids
- Test systems for simulation and analysis of cellular energy systems including microgrids

From January 2021, The IET will begin an Open Access publishing partnership with Wiley. As a result, all submissions that are accepted for this Special Issue will be published under the Gold Open Access Model and subject to the Article Processing Charge (APC) of \$2,800. For further information on APCs, and support for APCs including Wiley's institutional agreements and Research4Life initiative which offers waivers and automatic discounts for certain countries, please see our [FAQs](#). To submit your paper and for more information about the journal please visit our [website](#) and read our [Author Guide](#).

Guest Editors:

Prof. Matti Lehtonen
Aalto University, Finland
E: matti.lehtonen@aalto.fi

Prof. Johanna Myrzik
University of Bremen, Germany
E: MyrzikJ@iat.uni-bremen.de

Dr Rodrigo Palma
Universidad de Chile, Santiago de Chile
E: rodpalma@cec.uchile.cl

Prof. Qiuwei Wu
DTU, Denmark
E: qw@elektro.dtu.dk

Dr Vahid Vahidinasab
Newcastle University, UK
E: vahid.vahidinasab@newcastle.ac.uk