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# **Implementation of Renewable Energy in Power Distribution Systems Using Digitalization**

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## **Message from the Guest Editors**

The integration of renewable energy sources (RES) into power grids is a significant global trend impacting various problems in specific conditions of particular countries. The aim of this Special Issue is to study the digitalization of Renewable Energy Sources (RES), creating Digital Twins (DTs), supporting the balancing of the power grid and increasing the flexibility of the energy system, possible through dispatchable renewable energy sources.

For this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Analysis of available technical means
- Development of technological schemes implementation RES in the power grid
- Simulation photovoltaic system
- Model microgrid with renewable energy sources
- DT microgrid and RES
- Formation of optimal parameters of the power supply system according to the criterion of cost minimization and energy efficiency
- Developing the composition of equipment (the number, type, and location of electrical modules, inverters, and storage systems, taking into account the terrain and meteorological conditions)
- Using modern software for simulation RES
- Degradation PV module











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## **Editor-in-Chief**

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# **Message from the Editor-in-Chief**

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