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ABOUT THE BOOK

Book Title: Future Modern Distribution Networks Resilience:
From Passive Operation to Strategic Active Paradigms

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Abstract: Nowadays, due to the growing advancement of power systems information, communication technology, and the integration of distributed energy resources, modern distribution grids can be described as complex cyber-physical systems. Growing smart equipment, penetration of distributed energy sources, and load demand have made these grids more vulnerable to cyber and man-made disasters. Moreover, increasing the frequency of natural hazards affecting critical infrastructures such as power systems has necessitated upgrading planning and operation strategies to cope with such issues. Considering the harmful consequences of power outages, the resilience of the power grid to low-probability and high-impact events is vital. This book is aimed to evaluate the workable solutions for reducing the vulnerability of power grids. It is targeted to cover the risk and vulnerability analysis, hazards modelling, optimization and assessment of the resilient-oriented strategies before, during, and after a sudden disaster.

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Book Editors:

Mohammad Taghi Ameli

Shahid Beheshti University, Tehran, Iran.

Email: m_ameli@sbu.ac.ir

Kamran Jalilpoor

Shahid Beheshti University, Tehran, Iran.

Email: Jalilpoor.kamran@gmail.com

Sasan Azad

Shahid Beheshti University, Tehran, Iran.

Email: sa_azad@sbu.ac.ir

Mohammadreza Daneshvar

University of Tabriz, Tabriz, Iran

Email: m.r.daneshvar@ieee.org

Mohammad Sadegh Sepasian

Shahid Beheshti University, Tehran, Iran.

Email: m_sepasian@sbu.ac.ir

Behnam Mohammadi-Ivatloo

University of Tabriz, Tabriz, Iran

Email: mohammadi@ieee.org

Miadreza Shafie-Khah

University of Vaasa, Vaasa, Finland.

Email: miadreza.shafiekhah@uwasa.fi

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