Special Issue

Research Progress on Cyber-Physical Distribution System

Message from the Guest Editors

Modern distribution systems are facing increasing challenges, such as the volatility of renewable energy resources, the vulnerability of network topologies and the uncertainty of load demands. Distribution systems are tightly integrated with information and communication technologies, which have evolved into cyber-physical distribution systems (CPDS). Even though these technologies advance and optimize the operation of the electric power grid significantly, distribution systems, subject to complex cyber-physical interdependencies, are highly vulnerable to various risks. These risks caused by cyber systems can affect and even degrade system performance in terms of efficiency, security, safety, stability, and privacy. This Special Issue focuses on the advances in CPDS. We encourage the contribution of original papers on risk assessment, cyber-physical modeling and design, system planning, cybersecurity and privacy, cyberattack mitigation, stability analysis, and resilience in CPDS. We also welcome original research on innovative technologies and interdisciplinary study, e.g., artificial intelligence, new applications and new viewpoints in CPDS.

Guest Editors

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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