Microgrid Inverter Modeling Liu Jinjun

Jinjun Liu received the B.S. and Ph.D. degrees in electrical engineering from Xi"an Jiaotong University (XJTU), Xi"an, China, in 1992 and 1997, respectively. He then joined the XJTU Electrical...

He coauthored three books (including one textbook), published more than 500 technical papers in peer-reviewed journals and conference proceedings, and holds more than 90 invention patents ...

This paper derives a small-signal terminal characteristic model for the grid-forming inverter with droop-control in the synchronous reference (dq -) frame, accurately covering the dynamics...

An Adaptive Droop and Feedforward Control Based Transient Power Sharing and Decoupling Method for Grid-Forming Inverters in Islanded Microgrids. IEEE Transactions on Industrial Electronics, 2025, ...

Written by the research team led by Professor Liu Jinjun of the XJTU Power Electronics & Renewable Energy Research Center, the paper studied the modeling and analysis methods of microgrid...

His research interests include modeling, control, and design methods for power converters and electronified power systems, power quality control and utility applications of power electronics, and ...

A precise small-signal state-space model of the whole microgrid including droop controller, network, and loads is derived and genetic algorithm is introduced to search for optimal settings of the key ...

A standard microgrid power generation model and an inverter control model suitable for grid-connected and off-grid microgrids are built, and the voltage and frequency fluctuations in the two ...

This article proposes a seamless transition strategy between grid-connected (GC) and stand-alone (SA) states for a microgrid (MG) consisting of parallel inverters.

Xin Meng, Xueshan Liu, Mingzhi He, Zeng Liu, Jinjun Liu: A Self-Adaptive Controller for Inverter With

Seamless Transfer and Automatic Pre-Synchronization Capability.

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