Microgrid Deep Learning

Microgrids (MGs) provide a promising solution by enabling localized control over energy generation, storage, and distribution. This paper presents a novel reinforcement learning (RL)-based ...

This paper presented a comprehensive evaluation of reinforcement learning (RL)-based machine learning strategies tailored for advanced microgrid energy management, with a particular ...

Experiments demonstrate the revolutionary potential of AI to control microgrids.

Rigor: The research utilizes a multi-agent reinforcement learning (MARL) framework, specifically a Hierarchical Deep Reinforcement Learning (HDRL) architecture. Each microgrid participant ...

This paper presents a holistic data-driven power optimization approach based on deep reinforcement learning (DRL) for microgrid control, considering the multiple needs of ...

This study uses a multi-agent deep reinforcement learning approach to present an AI-powered microgrid system for optimized energy trading in interconnected systems.

Google Scholar Sun, Z., Eskandari, M., Zheng, C. & Li, M. Handling computation hardness and time complexity issue of battery energy storage scheduling in microgrids by deep reinforcement ...

Deep Reinforcement Learning (DRL), a subset of artificial intelligence, holds the potential to revolutionize the control and management of microgrids. This systematic review aims to provide a ...

This review critically examines the integration of Artificial Intelligence (AI) and Deep Reinforcement Learning (DRL) into smart microgrid platforms, focusing on their role in optimizing sustainable energy ...

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