

So, many challenges exist in integrating the microgrid with AC grid and load. The alternative arm converter (AAC) is among the most innovative converter topologies used in high ...

Our solution features an advanced IoT-based system that utilizes the Adaptive Neuro-Fuzzy Inference System (ANFIS), combining Artificial Neural Networks (ANN) and Fuzzy Logic ...

This paper presents a novel Robotic Process Automation (RPA)-driven energy management framework that optimizes microgrid operations under uncertainty, with a focus on ...

The proposed framework effectively integrates quantum-inspired AI, intelligent microgrid management, and autonomous robotics, offering a novel approach to energy coordination in cyber ...

AI facilitates real-time decision-making and adaptive control through intelligent data-driven approaches, thereby improving microgrid efficiency and resilience.

Abstract: The paper aims to design mobile microgrids with the help of robotics technology. Microgrids refers to those group of electricity sources that in normal conditions work while being connected to ...

Comprehensive microgrid overview: It provides an in-depth analysis of microgrid architectures, highlighting their fundamental components, operational strategies, and control ...

The Doctoral Thesis is devoted to improving energy efficiency by introducing DC-type electrical power supply solutions for industrial robot-based manufacturing applications.

We therefore created a 55-nanometer-by-55-nanometer DNA-based molecular platform with an integrated robotic arm of length 25 nanometers, which can be extended to more than 400 ...

Establishing a micro-grid power system connection autonomously using wireless power eliminates the arduous task of designing a complex, multiple degrees of freedom (MDOF) robotic arm. The work ...

Web: <https://anaelenaartistapmu.es>