

Who's using PXISE ACT?

We evaluate three control strategies--traditional PI, ANN-based PI, and RL-based PI controllers--through extensive simulations of a microgrid with distributed energy resources (DERs).

System data to create power grid control systems. Together, PXiSE and SRJC are developing a data-driven high-performance microgrid to help the school achieve its ambitious goals for reducing its ...

We propose a hybrid control strategy that combines a Recurrent Neural Network (RNN) with Proportional-Integral (PI) controllers to improve the performance of the bidirectional converter ...

Section 2 describes the Proposed Solution, including some details on the Raspberry Pi controller, how the EV price signal for charging is calculated, discusses the implementation, and also the expected ...

Abstract: Microgrids are small power systems with one or most distributed generating units (DGs). Frequency and voltage control are crucial for grid-independent operating. It is a complex ...

Run this file with `python3 gridcontrol.py` to manually start the microgrid system. Contains methods for the general steering ('dispatching') of the microgrid system. This includes methods to start computations ...

An SEL mobile microgrid allows you to parallel multiple diesel generators, which improves efficiency--and the ability to take a hit and keep running. Sharing the load between generators ...

In this paper, an improved voltage control strategy for microgrids (MG) is proposed, using an artificial neural network (ANN)-based adaptive proportional-integral (PI) controller combined ...

To improve the overall performance, a novel PI-based Inertia Injection controller has been proposed in this paper. This controller advances the Photovoltaic (PV) based virtual inertia model ...

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