Research and development of a Hybrid AI system for short-term solar power output forecasting based on satellite imagery and multi-source meteorological data

Tran Duc Hau

Abstract: In the context of renewable energy being increasingly prioritized, short-term solar power forecasting has become extremely important for optimizing energy management. This project aims to research and build a Hybrid AI system, combining both Deep Learning and Reinforcement Learning, using satellite imagery and multi-source meteorological data to forecast solar power output with high accuracy. Through the application deployment process, the project expects to achieve a significant improvement in forecasting performance compared to traditional methods.

Keywords: Hybrid AI, Solar power output forecasting, Multi-source data, Satellite imagery, Meteorological data