

Title: High-altitude wind power prediction system

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This paper proposes a method for assessing high-altitude wind resources, which can support the construction of decentralized wind power. The method includes unmanned aerial vehicle ...

A custom-designed graph neural network model was designed to predict wind speed data at high-elevation regions based on wind speed data at a low-elevation region. Moreover, an ...

Several technologies have been proposed that aim at harnessing wind power at high altitudes. Most of them are still at an early stage of development, in which patents have been ...

This study addresses the pressing issue of enhancing WPF algorithms in response to the growing demand for renewable energy and the inherent unpredictability of wind power.

Using 8 years of high-resolution meteorological data from multiple altitudes, we engineer a comprehensive set of physically interpretable features, including wind shear, temperature gradients, ...

We propose a multivariate meteorological data fusion wind prediction network (MFWPN) to study fine-grid vector wind speed prediction, taking Northeast China as an example.

Introduction This work aims to select the optimal wind-measurement instrument to satisfy observational requirements of Airborne Wind Energy System (AWES). Method Observation ...

Airborne kites harness high-altitude wind with advanced flight control, producing predictable electricity for renewable grids in Europe and the US.

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