

Title: Automatic steering of wind turbine generators

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The wake steering method was tested in an array of six utility-scale turbines where it increased the power production for wind speeds near the site annual average between 7 % and 13 % and ...

Using the FLOW Redirection and Induction in Steady State (FLORIS) engineering wind farm control tool, we compare the performance of standard and preview-enabled baseline and wake-steering control ...

Utilizing advanced computational tools like OpenFAST and FAST.Farm, this study consisted of a dual analysis of single-turbine configurations and multi-turbine setups with varying ...

Wake steering works by adjusting the yaw angle of wind turbines, which is the angle at which the rotor faces the wind. By yawing the turbine slightly off the wind direction, the wake ...

Wind turbine wake steering is a method used to "fine tune" the performance of numerous wind turbines that are relatively close together, as in a wind energy farm.

In this study, we investigate a yaw control strategy in a two-turbine wind farm with 3.5 MW turbines, aiming to optimize power management.

The paper proposes this Hybrid Model- and Learning-Based (HMLB) approach to wake steering for the first time, with the aim of managing wind turbine working conditions that can vary due to their ...

The effectiveness of the proposed approach is demonstrated on a wind farm and a layout corresponding to the Horns Rev wind farm, where various wind directions are investigated.

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