Company Profile

Huaxin KeChuang (Beijing) Technology Co., Ltd. (Stock Code: 874857) is a National High-Tech Enterprise dedicated to the R&D and manufacturing of smart health management technologies for wind power equipment. The company possesses fully independent intellectual property rights for its nacelle-mounted wind lidar and Wind Turbine HIMS (Health Management System) platform, which feature high efficiency, high reliability, low cost, and easy maintenance. We provide comprehensive solutions covering the entire lifecycle of wind turbines—from wind resource assessment to smart operation and maintenance management.

Nacelle-Mounted Continuous-Wave Wind Lidar

Based on Doppler shift coherent detection technology, this lidar measures wind speed and direction. Designed specifically for wind turbine master control systems, it optimizes power generation through yaw correction and wake flow optimization. By detecting wind conditions in advance, it effectively reduces structural loads, ensures equipment safety, extends operational lifespan, and enhances the ROI of wind farms.

Nacelle-Mounted Pulsed Wind Lidar

This pulsed lidar emits short, high-energy laser pulses and receives backscatter signals from atmospheric particles to analyze Doppler shifts via coherent detection. It enables layered measurement of wind speed and direction at various distances ahead of the turbine. Integrated into the turbine's master control system, it provides feedforward wind data to optimize yaw alignment accuracy and wake coordination strategies, thereby boosting power output. Simultaneously, early detection of incoming wind flow allows the turbine to proactively adjust its operating status, reducing fatigue loads, preventing overload risks, extending the service life of key components, and improving overall wind farm investment returns.

Ground-Based Wind Lidar HD1000 Series

The HD1000 series, independently developed by Huaxin KeChuang, is a coherent Doppler wind lidar. Utilizing optical heterodyne detection, it mixes the atmospheric backscatter signal with a local oscillator laser to measure atmospheric wind fields by capturing the group velocity of aerosols or molecules. This results in high measurement accuracy and exceptional clear-air detection capability. With high spatiotemporal resolution and rapid data transmission, the HD1000 is safe, reliable, and suitable for meteorology, atmospheric science, environmental meteorology, marine-atmospheric studies, and wind energy monitoring. It supports vessel-mounted deployment and installation on buoy platforms.

Headquartered in Beijing's Xicheng District, the company operates a manufacturing base in Langfang, Hebei Province. We boast a premier technical team comprising multiple PhDs and Master's degree holders and maintain extensive collaborations with renowned domestic and international universities and research institutions. Adhering to our core values of "Integrity First, Technological Innovation, Quality Foremost, and Customer Centricity," we are committed to delivering superior, professional products and services to our clients.