VDB Solar Solutions

Wind tube power generation patent application process

Overview

What are the different types of wind energy patents?

These patents cover inventions related to ofshore wind energy, including key technology concept groupings such as: fixed and floating foundations, towers, mechanical power transmission, blades and rotors, hybrid systems, energy storage, and grids and submarine cables.

How do wind energy patents work?

Methodology for wind energy application can be generalized for patent searching to target other technology domains. Wind energy patents are conventionally defined using Cooperative Patent Classification (CPC) and International Patent Classification (IPC) codes that represent wind motors (F03D) and wind energy (Y02E 10/70).

When did wind energy technology become a patented technology?

Following an initial phase marked by limited patent filings, the patenting activity in ofshore wind energy technologies experienced a notable surge starting in 2006. Subsequently, a period of consistent annual expansion persisted until 2012.

How many patents are related to wind turbine technology?

It was found that 10% were related to manufacturing, load testing, or material advancements in wind turbine blade technologies, 8% of patents were related to vibration and fault detection for diagnostic testing, 5% of patents were related to hybrid charging stations with battery storage, and 4% were related to offshore wind construction.

What is the maturity map of wind energy patent applications?

Maturity map of ofshore wind energy technologies patent applications between 2002 and 2022. NB: The maturity map combines the number of IPFs (vertical axis), the number of patent applicants (horizontal axis) and the

number of granted patents (size of bubbles). 32 Espacenet link.

How many patents are used in a wind energy application?

The number of patents used in all four samples on the wind energy application are outlined in Table C1. The sample size used for Sample 2 (Keyword Set – WEDD1) is 257, which is between 5 and 10% margin of error.

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China leads global increase in wind patent applications

New research shows a significant global increase in patent filings relating to wind power generation in the last 10 years, with China producing the highest volume of patent ...

Offshore wind power - obtaining patent protection in a dense ...

The world's first offshore wind farm was installed in 1991 at Vindeby in Denmark. At the time, the electricity industry generally considered offshore wind power to be a folly; each wind turbine ...

The grouting process of offshore wind farm jacket

The invention belongs to extraordinary technical field of construction, there is provided the grouting process of offshore wind farm jacket, comprises the following steps:1)At sea ...

Patent insight report November 2023

total patent families), followed by the Republic of Korea (6%), Germany (5%), Japan (5%), USA (4%), and Denmark (4%). -- Twenty-seven percent of all offshore wind energy patent families ...

Trends in the technological development of wind energy generation

The research conducted: a bibliographic review of the methods of technological prospecting and wind energy; a patent analysis, presenting the current panorama of ...

Compact wind power generation system

The wind power generation systems utilize a propeller disposed behind a contracting inlet. The propeller blades may be oriented "into the wind" to develop consistent torque across a variety ...

Rethinking the patent domains: An application to wind energy

A patent was identified as wind energy related if it is related to grid-connected stationary electricity generation powered by wind, either offshore or onshore. From this manual ...

US Patent Application for FLOATING WIND TURBINE PLATFORM ...

This application is a continuation of U.S. patent application Ser. No. 17,563/194, entitled "Floating Wind Turbine Platform Controlled To Optimize Power Production And ...

[Wind Power Generator Using Venturi Effect]

The present invention relates to a wind power generator, and more particularly, to a wind power generator using the venturi effect. Wind power generation is a technology that converts

US Patent Application for Tube-Type Wind Power Generator ...

A tube-type wind power generator includes an intake tube, an exhaust tube and a wind power generation device. The intake tube has a first end, a second end and an intake air channel, ...

US Patent Application for ATMOSPHERIC WATER GENERATOR SYSTEM Patent

In alternative embodiments, the system can be used in a multi-zone application or to provide cooled air and water to a building. An embodiment primarily for use as an air ...

Perpetual Motion Devices Patents (Class 415/916)

Abstract: A system accepts outside kinetic energy in various forms such as wind, rain or waterfall and produces electricity by use of traditional coils and magnets or other ...

Rethinking the patent domains: An application to wind energy

Through this wind energy application, we extend our methodology to form a generalized patent search process that can be used to target technology domains within a ...

Wind Power Generator Using Venturi Effect

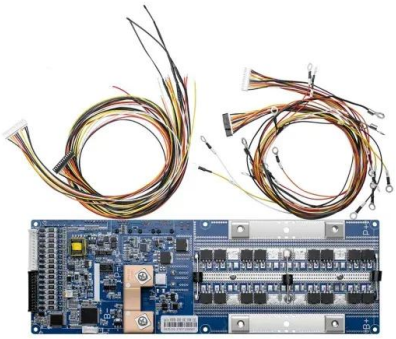
The present invention relates to a wind power generator using a venturi effect. The wind power generator comprises: a venturi tube which communicates with upper and lower sides open and ...

US Patent Application for VERTICAL AXIS WIND TURBINE Patent Application

The power of the wind tube, the kinetic energy flow per time: P = 1 2 * ? * v 2 * Q = 1 2 * ? * v 3 * A r. Using the area swept by the blade diameter: P=c*?*D 2 *? 3 . This is the ...

Patenting the Winds of Innovation , Wind Systems ...

As companies innovate, many develop internal procedures for identifying promising inventions, filing patent applications, and building a patent portfolio. However, fewer companies develop appropriate policies to extract ...



WO2022225338A1

the seawater flowing into the first heat exchanger 20 is heated through the generator and cooler 7 of the wind power generator 10 through the first low-temperature water flow pipe 9, and then ...

Wind tunnel electric-power generation system

The new energy (wind tunnel magnetic levitation single permanent magnet generator system) disclosed by the invention is charged one time to serve as a basic power source, so that a ...

PCT success story: RES GigaTube - a new structural and electrical

The invention relates to a new structural and electrical system for a vertical axis wind turbine, which, when applied, could bring about a mutational leap in using the power of ...

US Patent Application for Dual-Hybrid Solar and Wind-enabled ...

A hybrid solar/wind turbine apparatus, which includes a blade and shelf assembly configured to provide wind impulsion and wind capture. The blade and shelf assembly are located between ...

"Wind Turbine Blade And A Wind Turbine" in Patent Application ...

2020 FEB 10 (NewsRx) -- By a News Reporter-Staff News Editor at Energy Business Daily -- A patent application by the inventors Christiansen, Thomas Lehrmann (Aalborg, DK); Girolamo, ...

Wind power generation system suitable for roof

The invention discloses a wind power generation system suitable for a roof, which comprises: an external airflow channel which is surrounded by the top plate, the bottom plate and the side ...

Principle and Applications of Wind Power - Energy ...

The specified wind speed at which a wind turbine's rated power is achieved is known as rated wind speed. Survival wind speed/extreme wind speed: It is the maximum wind speed that a wind turbine is designed to withstand. 5.4 Angle ...

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