

Data mining windpower

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It is the first time that data has been used at a national scale to judge how the beauty of the environment impacts onshore windfarm development. Credit: CC0 Public Domain

Boris Johnson infamously once wrote that wind power can barely "pull the skin off a rice pudding." At the time of writing, his perspective has changed, and speaking as Prime Minister of the United Kingdom he is

suggesting that every home might be powered by wind turbines by the year 2030. There remains much work to be done to realize such visions, which are widespread among other leaders looking for renewable, sustainable, and zero-carbon energy sources in the face of climate change and uncertain fossil fuel security in coming years.

Writing in the *International Journal of Information and Communication Technology*, Jianfeng Che, Bo Wang, and Shitao Chen of the China Electric Power Research Institute in Beijing and Guangzhou Maxkwh Information Technology Co., Ltd. in China, point out flaws in the data handling and modeling of wind power that must be addressed to allow the technology to mature more effectively. They explain that data noise and poor fitting between wind measurement values and real values are hampering the modeling process for [wind power](#) development.

As such, the researchers are now proposing an approach to data mining of short-term wind measurements through wind farms based on multi-technology fusion. Their approach can identify and correct for anomalous data points. "The short-term wind data are de-noised by wavelet decomposition and normalized," the team explains. The whole process is more effective and faster than other procedures, they suggest.

More information: Jianfeng Che et al. Analysis of data mining method for short-term wind measurement of wind farm based on multi-technology fusion, *International Journal of Information and Communication Technology* (2020). [DOI: 10.1504/IJICT.2020.109891](https://doi.org/10.1504/IJICT.2020.109891)

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