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## Analysis of monitoring system reliability for wind turbine based on wireless sensor network (Article)

Fu, Z.<sup>a</sup>, Liu, Z.<sup>a</sup>, Ding, G.<sup>a</sup>, Li, H.<sup>b</sup>, Zhao, M.<sup>a</sup>, Li, Q.<sup>a</sup>, Yuan, Y.<sup>a</sup>

<sup>a</sup> College of Energy and Electrical Engineering, Hohai University, 8 Focheng West Road, Jiangning District, Nanjing, Jiangsu, China  
<sup>b</sup> State Grid Lianyungang Power Supply Company, 1 Xinglu North Road, Xinpu District, Lianyungang, Jiangsu, China

Abstract

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In this paper, based on wireless sensor network technology, we propose the monitoring system for wind turbine. In order to ensure that the monitoring system can completely and accurately obtain the condition monitoring information, using exponential distribution function, we establish the reliability model. Because the topology control techniques can improve the monitoring system reliability, we present the hierarchical network topology for monitoring system. Then, combined with the presented hierarchical network topology, we study the reliability model. Finally, simulation shows that the network parameters affect the reliability and the working time of monitoring system. © Zhixin et al.

### Author keywords

Monitoring system; Network parameters; Reliability; Wind turbine; Wireless sensor network

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Liu, Z.; College of Energy and Electrical Engineering, Hohai University, 8 Focheng West Road, Jiangning District, Nanjing, Jiangsu, China  
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