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Prediction of Wind Speed by Artificial Neural Networks for Energy Application

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Abstract : In this work the study of changes in the wind speed depending on the altitude is calculated and described by the model of the neural networks, the use of measured data, the speed and direction of wind, temperature and the humidity at 10 m are used as input data and as data targets at 50m above sea level. Comparing predict wind speeds and extrapolated at 50 m above sea level is performed. The results show that the prediction by the method of artificial neural networks is very accurate.

Keywords : MATLAB, neural network, power low, vertical extrapolation, wind energy, wind speed
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