

FAULT DETECTION SCHEME FOR LONG TRANSMISSION LINES USING WAVELET ENTROPY

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ABSTRACT

For fast detection of faults, wavelet entropy based fault detection scheme is proposed in this paper and tested its performance on long transmission line power network. For extraction of frequency components, discrete wavelet transform (DWT) is used. Since the fault transient phenomena are clearly identified by daubechies family, db4 coefficients are used for calculation of entropies. This scheme later tested on the transmission line network with various types of faults at different fault locations, inception angles, and fault resistances. All these cases are investigated in MATLAB-SIMULINK software environment.

KEYWORDS: *Faults, Wavelet Entropy, Db4*

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