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Abstract

Transmission and distribution lines are vital links between generating units and consumers. They are exposed to atmosphere, hence chances of occurrence of fault in transmission line is very high, which has to be immediately taken care of in order to minimize damage caused by it. In this paper discrete wavelet transform of voltage signals at the two ends of the transmission lines have been analyzed. Transient energies of detail information for two consecutive data windows at fault are used for analysis. Four layer feed forward back propagation neural networks are designed to classify and locate the fault at different single line to ground fault conditions.

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Index Terms

Computer Science

Artificial Intelligence

Keywords

Wavelet Discrete Wavelet Transform Multi Resolution Analysis Transient Energy
Neurons

Feed Forward Back Propagation Neural Network.