

COMPARISON OF PHASOR AND WAVELET ANALYSIS BASED FAULT CLASSIFICATION ALGORITHM

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ABSTRACT

Electricity has huge impact on country's economy, unwanted outages(faults) results loss of economy .To prevent loss an accurate techniques are need to restore system to normal condition. it is necessary to differentiate the algorithms on efficiency in classifying faults, so this study confer comparison of two techniques for classifying faults in transmission lines. One is build on current phasors and another is works on wavelet analysis. Wavelet analysis method uses swt(standard wavelet transform) that has an advantage over discrete wavelet transform to process current signals. while phasor based method which develops to overcome the complications faced by older methods using phasors to classify. current phasor method measures phase angle around sequence component currents. The two algorithms are studied with both matlab and simulink model at various fault location, inception and resistance for multiple faults. Studies shows that wavelet analysis method has a head over the phasor based method.

KEYWORDS: *Electrical Transmission System, Fault Classification, Phasor Analysis, Wavelet Analysis*

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