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Power Transmission Line Fault: S-Transform based Feature Extraction and ANN-based Classification

Prof. Vaibhav A. Ghodeswar[1] and Dr. Mirza A. Beg[2]
Assistant Professor, Department of Electrical Engineering[1]
Professor and Head, Department of Electrical Engineering[2]
MGI College of Engineering and Technology, Shegaon, India
ghodeswarvaibhav@gmail.com and ansarbeg@gmail.com

Abstract: *In this paper a new technique for the identification and discrimination of faults on the transmission line of the power system has been presented. The power system network considered in this study is the two-generator system simulated in a Matrix laboratory i.e., MATLAB milieu. Firstly, captured voltage and current are transformed using S-transform techniques then the various energy of faults has been calculated using Parseval's theorem. Then these energies are given as an input to ANN. The classification results obtained show the effectiveness of this technique.100 percent classification is achieved by using this method.*

Keywords: ST(S-transform), Parseval's theorem, ANN, MATLAB.

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