

# QUALITY ASSESSMENT OF POWER SYSTEM USING ARTIFICIAL NEURAL NETWORK

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## ABSTRACT

In recent years Artificial Intelligence has been proposed as an alternative tool to provide quick solutions to certain difficult power system problems. With intelligent systems, such as ANN, the available information regarding the power system can be stored and retrieved as a part of new solution process. ANN computing may require larger time for off line training but is capable of giving instant response for a given condition and hence, is suitable for on-line applications.

This paper describes ANN base technique for obtaining the quality of interconnected power system. Desired level of voltage has been maintained using back propagation algorithm base network, which is trained to represent the system as ANN model. The well-trained model can use to predict the quality and the losses of the power system. This trained model can also predict the behavior of the network as load increase.

**KEYWORDS:** Artificial Intelligence, ANN, Alternative Tool, Off Line Training, Quality of Interconnected Power System