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## Abstract

This paper presents a novel PSO(Particle swarm optimization) based FLANN(Functional Link Artificial Neural Network)classifier for the classification of non stationary power signals. The Multilayer perceptron (MLP) neural network model with back propagation learning algorithm consumes larger computational time. When the number of layers and number of hidden nodes in the MLP model increases, the complexity of the network increases. So, it is also very difficult to finalize the number of nodes in a layer. In this paper particle swarm optimization (PSO) is used to train the weights of the functional link artificial neural network (FLANN) for power signal classification. S-Transform is used to extract the features of the power signals and fed as input

to the PSO based FLANN model.

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### Index Terms

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### Keywords

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