

## عنوان مقاله:

Optimal Rotor Fault Detection in Induction Motor Using Particle-Swarm Optimization Optimized Neural Network

## محل انتشار:

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## خلاصه مقاله:

This study examined and presents an effective method for detection of failure of conductor bars in the winding of rotor of induction motor in low load conditions using neural networks of radial-base functions. The proposed method used Hilbert method to obtain the stator current signal push. The frequency and signal amplitude of the push stator were used as the input of the neural network and the network outputs were rotor fault state, and the number of conductive bars with broken fault. Moreover, particle-swarm optimization algorithm was used to determine the optimal network weights and neuron penetration radius in the neural network. The results obtained from the proposed method showed the optimal and efficient performance of the method in detecting conductive bars broken fault in induction motor in low load conditions.

## کلمات کلیدی:

fault detection, Induction motor, Hilbert transform, Neural Network, Particle-Swarm Optimization

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/963056>

