Contingency Analysis Of Bulk Power System Using Neural Networks

Maghrabi, H. Refaee, J.A. Mohandes, M.;Dept. of Electr. Eng., King Fahd Univ. of Pet.Miner.. Dhahran:

Power System Technology, 1998. Proceedings. POWERCON '98. 1998 International conference; Publication Date: 18-21 Aug 1998; Vol. 2,On page(s): 1251-1254 vol.2: ISBN: 0-7803-4754-4

King Fahd University of Petroleum & Minerals

http://www.kfupm.edu.sa

Summary

Radial basis function networks (RBFNs) are used for the contingency evaluation of bulk power systems. The motivation behind this work is to exploit the nonlinear mapping capabilities of RBFN in estimating line loading and bus voltages of a bulk power system following a contingency. Unlike most of the available neural network-based techniques, the proposed method utilizes the potential of RBFN in planning studies. The performance of the RBFN is compared with a standard AC load flow algorithm

For pre-prints please write to:abstracts@kfupm.edu.sa