

Radial Basis Function Network Based Power System Stabilizers Formultimachine Power Systems

Abido, M.A. Abdel-Magid, Y.L.;Dept. of Electr. Eng., King Fahd Univ. of Pet.Miner., Dhahran;

Neural Networks,1997., International conference;Publication Date: 9-12 Jun 1997;Vol: 2,On page(s): 622-626 vol.2;ISBN: 0-7803-4122-8

King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

A radial basis function network (RBFN) based power system stabilizer (PSS) is presented in this paper to improve the dynamic stability of multimachine power systems. The proposed RBFN is trained over a wide range of operating conditions in order to re-tune the parameters of the PSS in real-time. Time domain simulations of a multimachine power system with different operating conditions subject to a three phase fault are studied and investigated. The performance of the proposed RBFN PSS is compared to that of conventional power system stabilizer (CPSS). The results show the good damping characteristics of the proposed RBFN PSS over a wide range of operating conditions

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