On-Line Identification Of Synchronous Machines Using Radial Basisfunction Neural Networks

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Summary

On-line identification of the synchronous machines using radial basis function neural network (RBFNN) is presented in this paper. The capability of the proposed identifier to capture the nonlinear operating characteristics of the synchronous machine is illustrated. The results of the proposed identifier performance due to square and uniformly distributed random variations in both mechanical torque and field voltage are compared with that obtained by time-domain simulations. Correlation-based model validity tests using residuals and inputs have been carried out to examine the validity of the proposed identifier. The results of these tests demonstrate the adequacy of the proposed identifier

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