

Article Abstract

Title:	Application of radial basis neural network for state estimation of power system networks
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Abstract:	An original application of radial basis function (RBF) neural network for power system state estimation is proposed in this paper. The property of massive parallelism of neural networks is employed for this. The application of RBF neural network for state estimation is investigated by testing its applicability on a IEEE 14 bus system. The proposed estimator is compared with conventional Weighted Least Squares (WLS) State Estimator on basis of time, accuracy and robustness. It is observed that the time taken by the proposed estimator is quite low. The proposed estimator is more accurate and robust in case of gross errors and topological errors present in the measurement data.
Keywords:	Radial Basis Function Neural Networks, State Estimation.