



LEVENBERG-MARQUARDT METHOD FOR FEEDFORWARD ARTIFICIAL NEURAL NETWORKS

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Abstract

Levenberg-Marquardt method in single and multilayer feedforward artificial neural networks. In all previous works, the total error function for single or multilayer feedforward artificial neural networks did not calculate properly and all the update weight equations for single or multilayer feedforward artificial neural networks has been calculated by choosing a single activation function for various processing unit in the network. We, at first, calculate the total error function separately for single and multilayer feedforward artificial neural networks and then we calculate the two new update weight equations for taking different activation function in different processing unit separately single and multilayer feedforward artificial neural networks.

Keywords and phrases: Levenberg-Marquardt method, back propagation learning, feedforward artificial neural networks, activation functions, training.

