Original Articles

An Adaptive Neural Network Model for Nonlinear Programming Problems

Xiang Sun ZHANG(1) ,Xin Jian ZHUO(2),Zhu Jun JING(3)

(1)Academy of Mathematics and System Sciences, Chinese Academy of Sciences;(2)School of Information Engineering, Beijing University of Posts and Telecommunications;(3)Hunan Normal University

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摘要   In this paper a canonicalneural network with adaptively changing synaptic weights and activation function parameters is presented to solve general nonlinear programming problems. The basic part of the model is a sub-network used to find a solution of quadratic programming problems with simple upper and lower bounds. By sequentially activating the sub-network under the control of an external computer or a special analog or digital processor that adjusts the weights and parameters, one then solves general nonlinear programming problems. Convergence proof and numerical results are given.

关键词   adaptive neural network   canonical neural network

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