A neuro-fuzzy recognition system based on fuzzy Hopfield network

Ruen, Xiao-Gang


Abstract

Based on Fuzzy Hopfield network research paper, a neural fuzzy identification system (Neuro-Fuzzy Recognition System, referred to as NFR system, or NFRs). Its core is the (N +1)-order Hopfield network and fuzzy clustering of nuclear NFR. Adopted (N +1)-order fuzzy Hopfield network N-order sub-networks, fuzzy clustering the sample patterns, learn the sample model implied fuzzy clustering structure of knowledge, form a cluster of nuclear NFR. NFR clustering based on knowledge of the nuclear form structure, (N +1)-order fuzzy Hopfield network to be identified by the model and the model constitute a collection of sample models to fuzzy clustering operations. NFRs can be the mode of pattern space for classification and identification, and in accordance with the sample be divided into such models price class. NFRs papers on the performance of the theoretical analysis and sample studies showed that, NFRs with good features.

References


Author affiliation

Department of Automation, Beijing Polytechnic University, Beijing 100022.