Cooperative Coevolution for Neuro-Evolution of Feed Forward Networks for Time Series Prediction Using Hidden Neuron Connections

Authors : Ravneil Nand

Abstract : Cooperative coevolution uses problem decomposition methods to solve a larger problem. The problem decomposition deals with breaking down the larger problem into a number of smaller sub-problems depending on their method. Different problem decomposition methods have their own strengths and limitations depending on the neural network used and application problem. In this paper we are introducing a new problem decomposition method known as Hidden-Neuron Level Decomposition (HNL). The HNL method is competing with established problem decomposition method in time series prediction. The results show that the proposed approach has improved the results in some benchmark data sets when compared to the standalone method and has competitive results when compared to methods from literature.