

Constructive Evolutionary Neural Networks (CENNs) for Data Mining and Classification

F. Mili and A. Rebaï

Artificial Neural Networks (ANNs) are important data mining tools; the search for the optimal ANN is still a challenging area. The ANN should learn the input-output without overfitting the data but training algorithms may get trapped in local minima. The use of genetic algorithms (Gas) is a promising alternative for ANN optimization. This work presents hybrid GA/ANN algorithm named Constructive Evolutionary Neural Networks (CENNs). The proposed approach is experimentally evaluated using 6 benchmark databases. This process will be run 10 times to form the constructive evolutionary neural networks ensemble (CENNE).