A Novel Pattern Classification using Granular Reflex Fuzzy Min-Max Neural Network

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Abstract

Pattern classification is a system for classifying patterns into dissimilar potential categories. The classifier that is used for classification is granular neural network. A granular neural network called granular reflex fuzzy min-max neural network (GrRFMN). GrRFMN uses hyperbox fuzzy set to signify grainy information. Using known data the neural network will be trained, and using this trained neural network data can be classified. Its structural design consists of a spontaneous effect system motivated from human brain to handle group overlies. The GFMN cannot hold data granules of dissimilar sizes professionally. It can be practically done that a convinced quantity of such preprocessing can assist to recover the presentation of a classifier. The GrRFMN is skilled of managing grainy information capably by the training algorithm. The experimental outcomes on valid datasets confirm a good presentation of GrRFMN. Experimental results on valid data sets confirm that the GrRFMN can categorize granules of dissimilar granularity further acceptably.

References

- A Granular Reflex Fuzzy Min-Max Neural Network for Classification (GrRFMN) by A.

Index Terms

Computer Science

Fuzzy Systems

Keywords

Compensatory neurons  grainy information classification  granular neural network (GNN)  reflex mechanism.