

CLUSTERING BASED SIMILARITY MEASUREMENT MODEL FOR RECENT BIASED TIME SERIES DATABASES

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ABSTRACT

Dimensionality Reduction and similarity measurement are the most important issues in time series analysis which is an essential task in data mining such as clustering, classification etc., In this paper we have proposed a model for similarity search based on feature extraction and clustering. Due to “Dimensionality curse” the original data is mapped into a feature space by means of Discrete wavelet transform and then similarity is found by applying SOM clustering. We have tested our model using stock series and the simulated result proves that the proposed method is better in grouping similar series under various resolution compared to the existing methods.

KEYWORDS: Dimensionality Reduction, Similarity Measurement, Feature Extraction, Clustering, Classification, Dimensionality Curse, Discrete Wavelet Transform, SOM Clustering