Abstract

The Adaptive Network-Based Fuzzy Inference System (ANFIS) has been proven to be efficient for forecasting. To address this concern, this research develops a nonlinear combined forecasting system by ANFIS for predicting the demand of telecommunications technology. We investigate the weights assigned to the combined forecast using two linear methods (the Least squares analysis and the Logistic model), as well as one nonlinear method (the Bass model). An empirical data set from 3G technology development in Taiwan is used to demonstrate the application of the proposed methodology. These results show that the ANFIS method outperforms other individual methods. Also, this proposed work also provides the user with a user interface in which user can fill the query and find the desired forecasting results.
References


Index Terms

Computer Science

Fuzzy Systems

Keywords

Adaptive Network-Based Fuzzy Inference System
Combined Forecasts
Least Squares Analysis
Logistic Model
Bass Model