

Special Session Proposal

The special session proposal is considered in International work-conference on Time Series (ITISE 2015).

Title of the proposed special session

Advanced Time Series Forecasting Methods

Motivation and objectives for the session

Nowadays, it is of vital importance to make predictions about the future in terms of planning and strategy formulation. This can be realized by accurate and realistic analysis of information and data that have emerged from past to present. This can be also called as time series analysis.

Various time series forecasting approaches have been proposed in the literature to obtain better forecasting accuracy level. These approaches can be examined under two main topics as stochastic and non-stochastic models. Especially, in the last few decades, more sophisticated and non-stochastic algorithms can be improved since properties of computers were enhanced. Therefore, advanced time series forecasting methods based on artificial neural networks and fuzzy set theory can be proposed. In addition, hybrid forecasting methods have also been improved to obtain more accurate forecasts by combining these new approaches. In recent years, these advanced time series forecasting methods have been used to forecast real life time series and satisfactory results have also been obtained.

The main objectives of this special session are to collect new papers and to create an opportunity of discussion about advanced forecasting methods. Potential topics are given below,

- Forecasting methods using fuzzy set theory
 - Fuzzy inference systems for forecasting
 - Fuzzy regression
 - Fuzzy time series methods
- Forecasting methods based on artificial neural networks
 - Feed forward artificial neural networks for forecasting
 - Recurrent artificial neural networks for forecasting
 - And the other artificial neural networks for forecasting
- Hybrid forecasting methods used fuzzy, probabilistic and neural network methods
- Advanced forecasting applications in different disciplines such as Economy and Engineering

Short biography of the organizers

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