Applied Sciences

an Open Access Journal by MDPI

CiteScore: 5.5
Impact Factor: 2.5

Special Issue Reprint

Advanced Methods for Time Series Forecasting

Edited by: Camelia Delcea and Nora Monica Chirita

This Special Issue, “Advanced Methods for Time Series Forecasting”, focuses on recent methodological and applied advances that address the complex modern time series data. As forecasting has been increasingly used in decision-making in various research-related fields such as, but not limited to energy systems, finance, transportation, smart infrastructure, environmental modeling, and management science, the need for models that can capture nonlinear dynamics, long-term dependencies, multiscale patterns, and uncertainty is real and actual.

The Special Issue provides an innovative approach to the issues associated with the time series forecasting, spanning artificial intelligence, deep learning, hybrid statistical–machine learning models, attention mechanisms, transformer-based architectures, state-space formulations, and signal decomposition techniques. Contributions featured in the Special Issue include theoretical developments, as well as empirical studies, comparative evaluations, and domain-driven applications which have the role to demonstrate the extent to which the advanced forecasting methods outperform traditional techniques in challenging real-world settings. By bridging together various perspectives and real-life application contexts, this Special Issue aims to provide an overview of current trends, as well as to offer practical solutions, and future research directions in advanced time series forecasting.

https://www.mdpi.com/books/reprint/12489