Package ‘WaveletKNN’

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Type Package

Title Wavelet Based K-Nearest Neighbor Model

Version 0.1.0

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Description The employment of the Wavelet decomposition technique proves to be highly advanta-
geous in the modelling of noisy time series data. Wavelet decomposition technique using
the ``haar` algorithm has been incorporated to formulate a hybrid Wavelet KNN (K-
Nearest Neighbour) model for time series forecasting, as proposed by An-

License GPL-3

Encoding UTF-8

Imports caret, dplyr, caretForecast, Metrics, tseries, stats, wavelets

RoxygenNote 7.2.1

NeedsCompilation no

Repository CRAN

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Wavelet Based K-Nearest Neighbor Model

Description

Wavelet Based K-Nearest Neighbor Model

Usage

WaveletKNN(ts, MLag = 12, split_ratio = 0.8, wlevels = 3)

Arguments

<table>
<thead>
<tr>
<th>ts</th>
<th>Time Series Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLag</td>
<td>Maximum Lags</td>
</tr>
<tr>
<td>split_ratio</td>
<td>Training and Testing Split</td>
</tr>
<tr>
<td>wlevels</td>
<td>Number of Wavelet Levels</td>
</tr>
</tbody>
</table>

Value

- Lag: Lags used in model
- Parameters: Parameters of the model
- Train_actual: Actual train series
- Test_actual: Actual test series
- Train_fitted: Fitted train series
- Test_predicted: Predicted test series
- Accuracy: RMSE and MAPE of the model

References


Examples

library("WaveletKNN")
data<- rnorm(100,100, 10)
WG<-WaveletKNN(ts=data)
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