

ABSTRACT

A COMPARISON OF THE SARIMA AND FUZZY TIME SERIES MODEL CHEN METHODS IN FORECASTING RAINFALL DATA IN MAKASSAR CITY

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The high amount of rainfall in Makassar City often leads to flooding. Therefore, rainfall forecasting is needed as a reference for taking appropriate mitigation measures. This study aims to select the best model between the SARIMA and the FTS model Chen based on a comparison of their forecasting accuracy, as well as to forecast the amount of rainfall in Makassar City for the year 2024 using the best model. The monthly rainfall data for the period of January 2014 to December 2024 were obtained from the official website of the BPS of Makassar City. Based on the analysis results, the SARIMA(7,2,3)(1,1,1)¹² was selected as the best model, with an MAE value of 2.654 and an RMSE value of 3.846

Keywords: Rainfall, FTS Chen Model, Forecasting, SARIMA