Abstract

The present study examines the regional temperature trends in Delhi, India by analyzing the daily mean air temperature recorded from January 1, 2013, to April 24, 2017. By applying time series analysis techniques, the study investigated the historical temperature data, constructed forecasting models and assessed their forecasting accuracy. The study used some models including Mean, Drift and SARIMA models and evaluated them using performance metrics such as RMSE, MAE and AIC. The SARIMA model with dummy variables predicts future temperatures with better accuracy than other models. By studying the changing climate patterns in Delhi, this study highlights the value of time series modeling in addressing climate-related challenges and provides a framework for future studies of regional climate trends.