

Fig. 1. Study area and location of Gohar Zamin Iron Ore Mine.

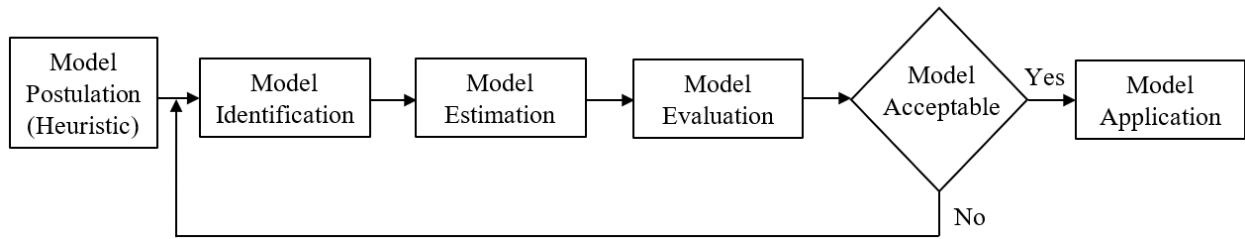


Fig. 2. Box and Jenkins model construction method (Palit & Popovic, 2005).

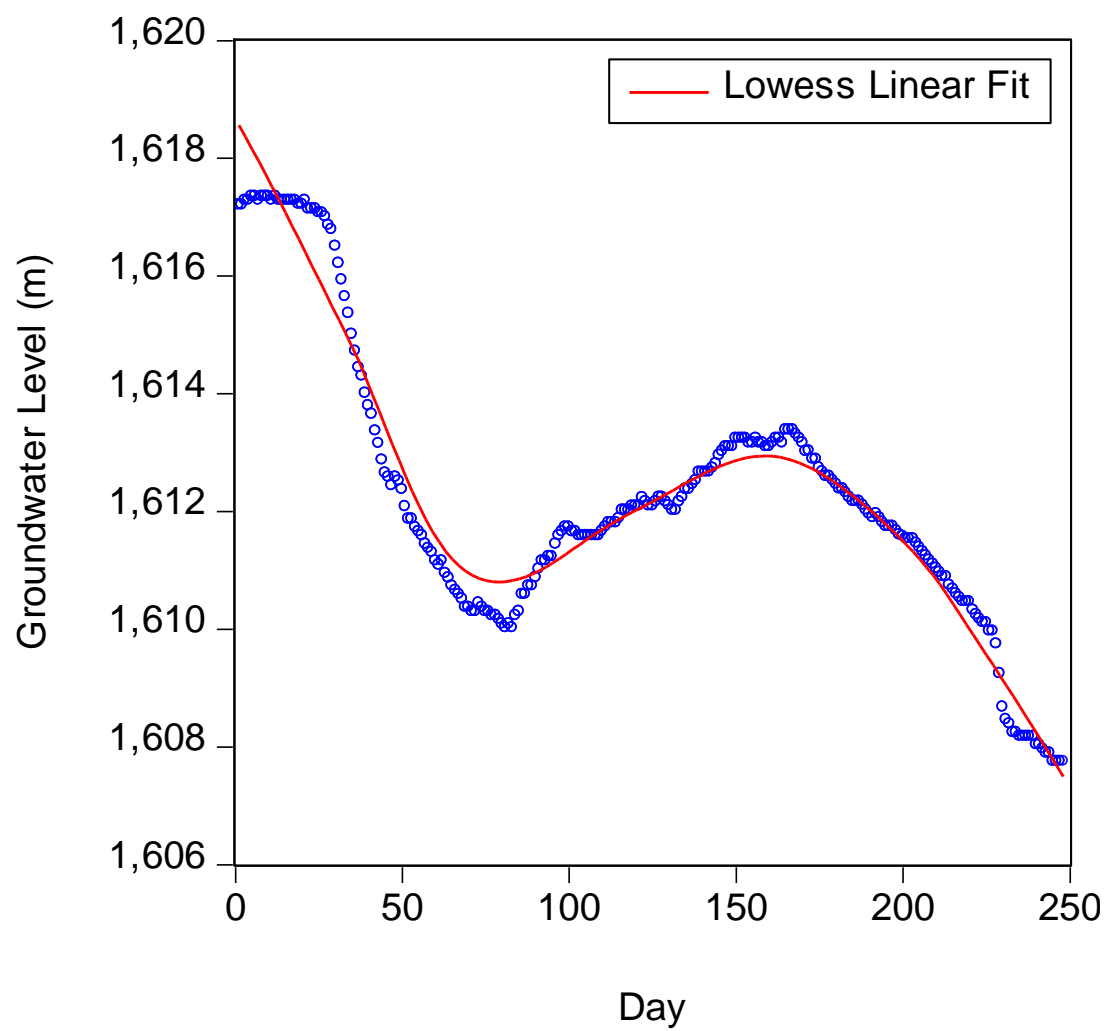


Fig. 3. The fitted line to groundwater fluctuations.

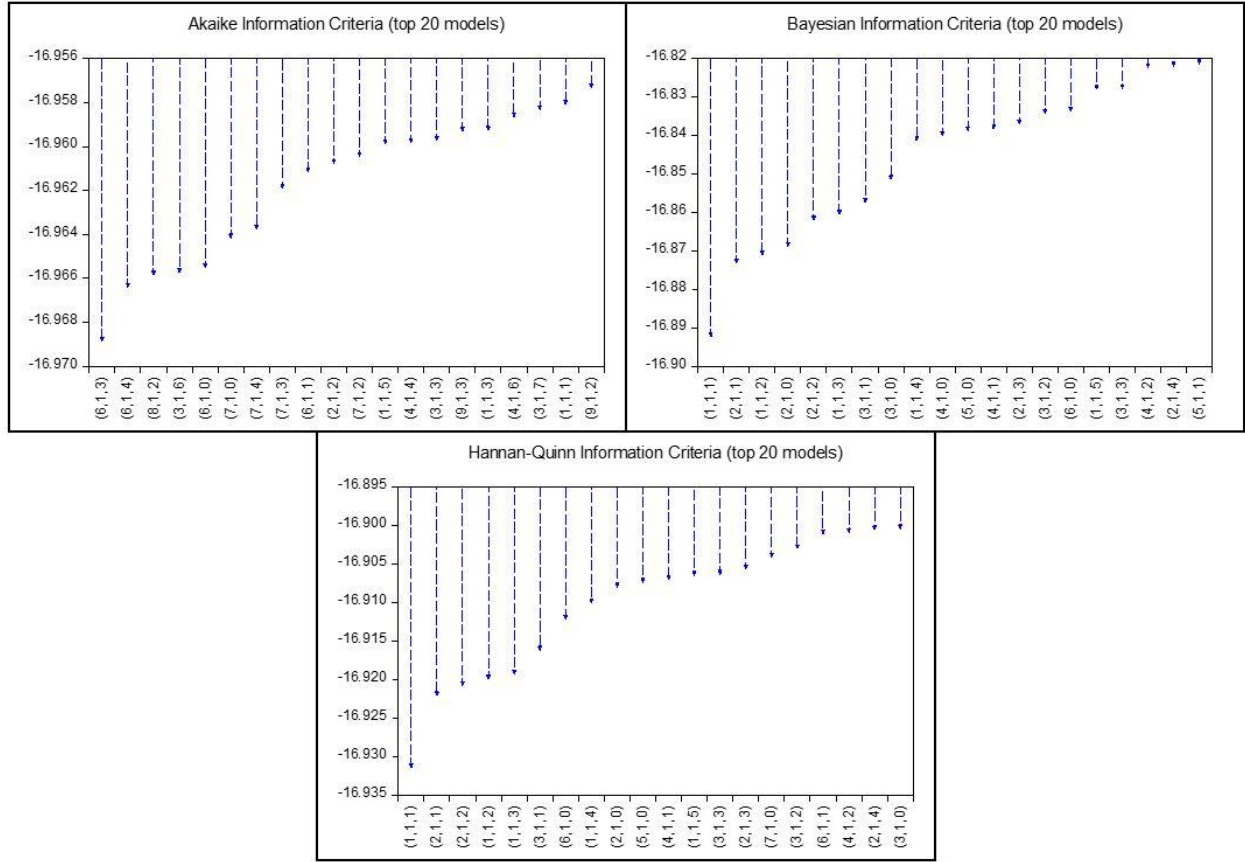


Fig. 4. AIC, BIC, and HQIC values for the top 20 models to estimate the model orders.

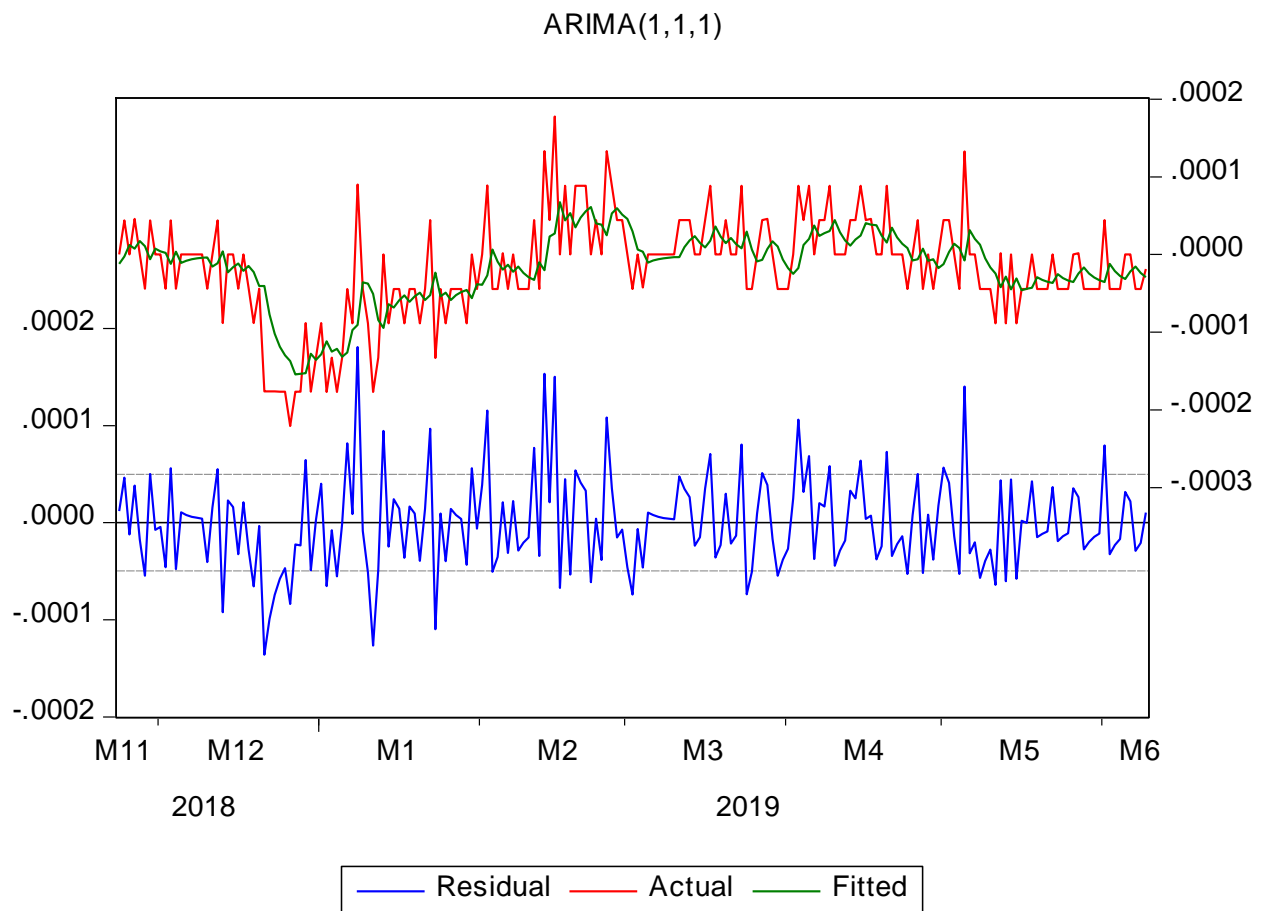


Fig. 5. Actual, fitted, and residual graphs for the first difference ARIMA model.

ARIMA(1,1,1)

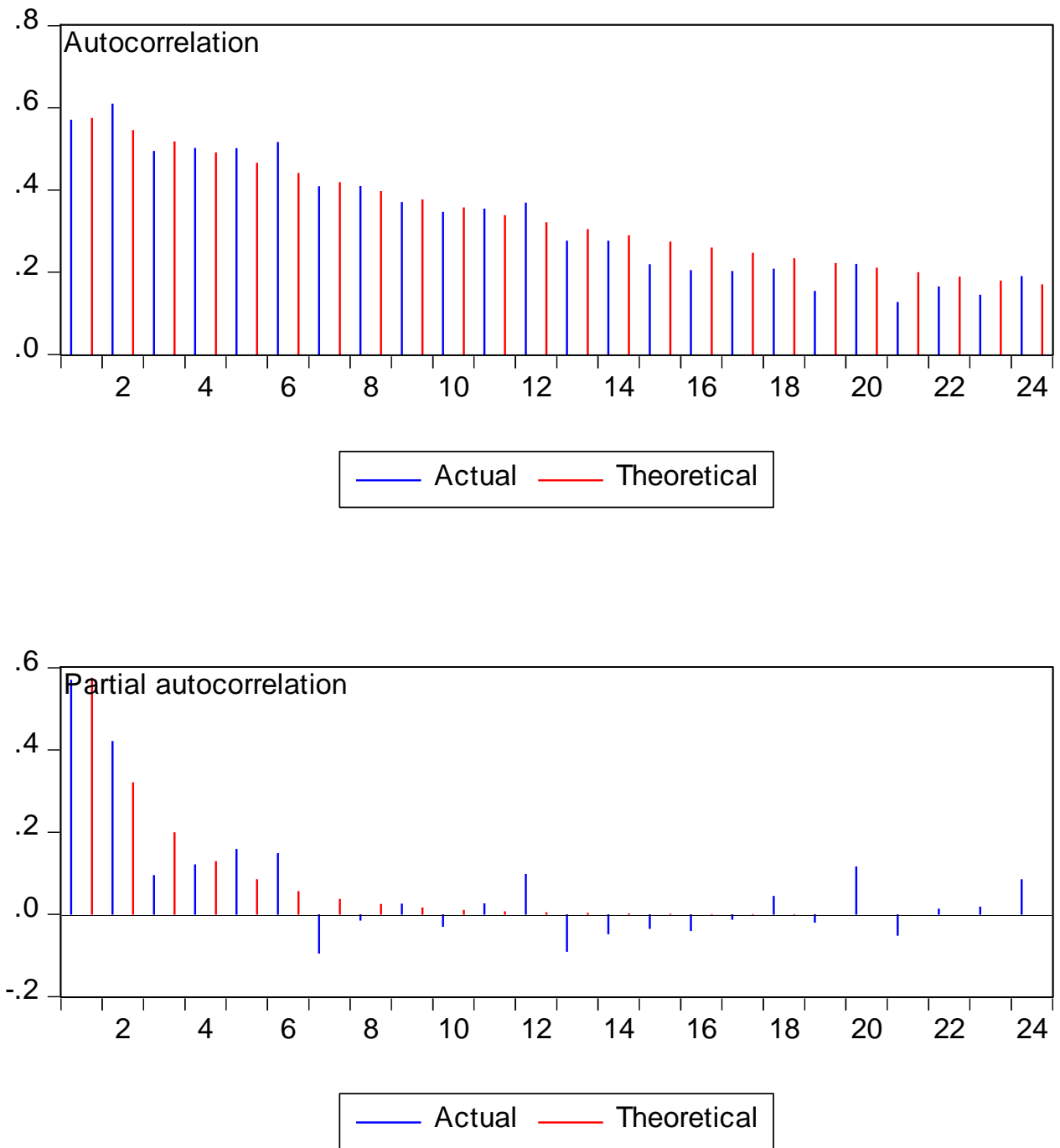


Fig. 6. ACF and PACF of the theoretical residues and the estimated model.

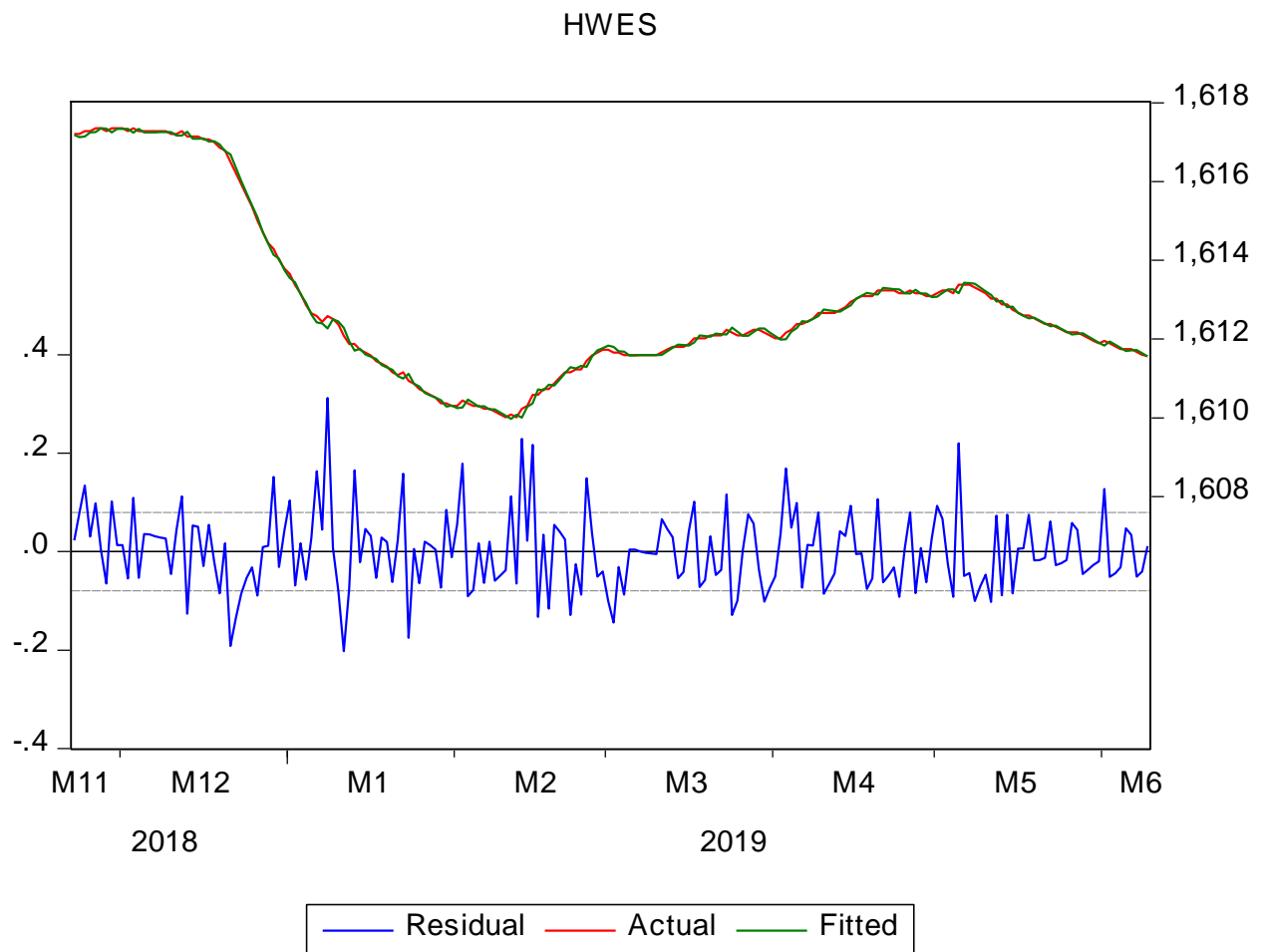


Fig. 7. Actual, fitted, and residual graphs for Holt-Winters Exponential Smoothing model.

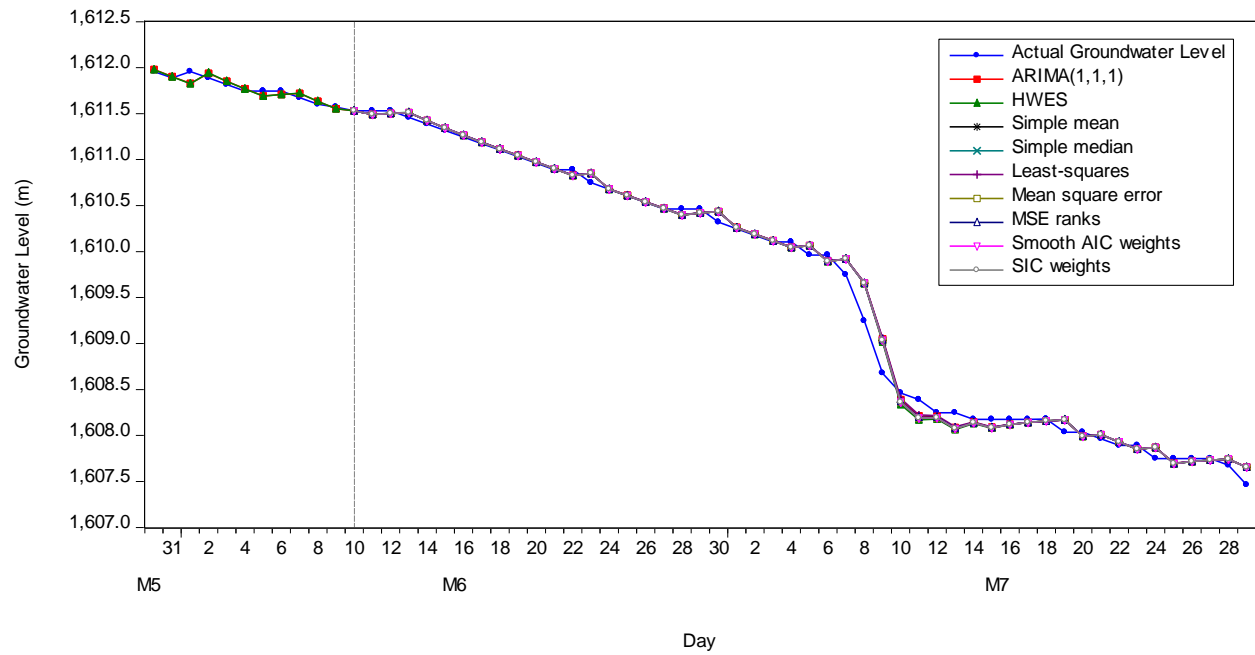


Fig. 8 Time series forecast by actual groundwater fluctuations, ARIMA, HWES, and combined forecast.