A Case Study

We have very large datasets that have complex relationships with many different parameters. On the other hand, let us focus on a simple and small set in order to investigate its features.

It is well known that machine learning techniques can be implemented systematically for forecasting on certain time series problems. A simple solution that has strong signs of seasonality with ARIMA model is given by following link.

Please try to construct an alternative (and more precise) approach with statistical packages of Python or any appropriate language to do similar prediction for problem that is described by above link. You should use dataset given by Makridakis and Wheelwright, 1989.

For any reasonable and persuasive approach, RMSE value will be accepted as a performance indicator of your result.

Also feel free to discuss shortly relevance of different hybrid models for this problem, if you don't find better RMSE with an original methodology.

You can send the answer with an output file of Jupyter notebook or any format which you prefer.

Good Luck!