In this present work, we provide an overview of methods for time series modelling and prediction. We describe methods based on decomposition as well as methods based on the Box-Jenkins methodology. Moreover, we also discuss methods based on the ideas from computational intelligence —mainly neural networks. The description of the methods is focused on the algorithmic aspects —we derive the ways in which the parameters of the models are set.

The work also contains a software, which allows the user to apply the described methods to given time series and compare them among each other.