Time Series Analytics

In this second project of the subject the student must learn to make adequate decisions when analyzing time series data sets. To do so, the student is provided with a data set which contains observations taken over a year. Specifically, students will use R or other data analytics tools to carry out the analysis.

Since each group is provided with a different data set, next we describe the targets of the project.

Project targets

The project can be roughly divided into the following targets.

1. Familiarization with the data set. The students must get familiar with the data set with which they are provided. That is, students must understand which kind of information is contained in the data set, what is the sampling period, when the information was gathered…
2. Decision on the analysis objective. Students must decide what they want to get from their data before they can carry out an adequate analysis.
3. Deciding on the data model. Students will likely have to go through different models before they can decide on the right one for their series. Students must detail which models they tried and why, and which one is the best. Thus, they must also decide on the evaluation method.
4. Writing of the technical report. Students must describe in detail the study of the problem, the proposed solutions and the implementation carried out in this work. Students must also submit the scripts used to carry out the presented analyses. Finally, they must also comment on the issues and difficulties encountered in the process.
5. Presentation of the work. Students must carry out an oral presentation of the work, using slides to support it.