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Nr.crt.	Titlu lucrare	Scurta descriere	Cerinte	Nivel (licenta/master)
1	Time Series modeling with classical methods	Design and study of classical time series models. This work should start with a literature review, to understand the basics of the forecasting methods. The considered models are mainly autoregressive and moving average models.	Math and programming in Matlab and Python	**licență**
2	Time series modeling with decomposable models	Design and study of decomposable models. This work consists of understanding the principles of decomposition for time series and finding the most suitable trend, seasonality and "other events" components.	Math and programming in Matlab and Python	**licență**
3	Time series modeling with LSTM networks	Design and study of LSTM neural-networks for time series models. This work consists of understanding the basics of Long Short-Term Memory neural networks and applying to data analysis.	Math and programming in Matlab and Python	**licență**
4	Time series modeling with ensemble models	Design and study of several forecasting models. Finding a combination of models that outperforms the individual forecasting.	Math and programming in Matlab and Python	**licență**
5	Multi-input models for time series	Design and study of multi-input models. Consindering several time series and finding the model that understands and describes the connection between the individual elements.	Math and programming in Matlab and Python	**licență**
6	Time series classification	Design and study of classifiers for time series. Implementing methods that recognizes the similar patterns in time series.	Math and programming in Matlab and Python	**licență**
7	Nonlinear system control	Implementing a Parallel Distributed Control method on a nonlinear system.	Math and programming in Matlab/Simulink	**licență**
8	State estimation of a nonlinear system	Implementating a state observer for a nonlinear system.	Math and programming in Matlab/Simulink	**licență**
9	Observer-based controller desing	This project has three parts: first, it is an observer desgin problem, which is followed by the controller design, with the final goal to find a stable observer-based controller.	Math and programming in Matlab/Simulink	**licență**