**Assignment 1: Model the Data for Your Purpose**

This second assignment is straightforward and built on the foundation of the first assignment. You are required to apply what you have learned in class to your data.

1. Process

**Step 1: Define the performance metrics of your modeling.**  Based on your ultimate goal for the data, you need to identify proper performance metrics. For example, if it is for regression, then RMSE may be a good choice. If it is for classification, misclassification rate may be proper. If it is probabilistic or interval forecasting, pinball loss or CRPS can be considered.

**Step 2: Try out different models.**  You can apply the models that we learned from class or other advanced models you have searched from the literature.

**Step 3: Model selection.**  You will pick the best combination of model and features that gives the best performance metrics. There are multiple ways to do so. You can calculate AIC and BIC. You can also select models based on testing data or cross-validation.

1. Submission

* You are required to deliver a 10-min presentation in class.
* You also need to write a 1-2 page written report, in IEEE double-column paper format.