

Homework #2*Instructor: José del R. Millán**TA: Satyam Kumar*

Course Policy: Read all the instructions below carefully before you start working on the assignment, and before you make a submission.

- Answer to all below questions with requested figures.
- Generate all the figures via the data that you have chosen for your course project.
- Assignments are due at the beginning of class at 6:00 pm on the due date.
- Report is individual for each student.
- Group work is encouraged.
- Reports delivered via Canvas.

Problem 1: Feature Selection**(3 points)**

For each session of the original data, extract some features (at least 3), then calculate their discriminant power (using Fisher Score or any other criterion of your choice, eventually comparing different criteria). [Plot the discriminant power](#) of the chosen features for every subject and session. Discuss them.

Problem 2: Grand Average**(4 points)**

Plot the relevant Grand Average ([mean and variance](#)) of the selected features in Problem 1 for [every](#) subject, class and session. Discuss them.

Problem 3: Topological Plot**(3 points)**

Generate the Topological Plots ([average values across all channels](#)) for [every](#) subject, class and session. Do it for [the appropriate](#) features selected in Problem 1. Discuss them.