EE559 Mathematical Pattern Recognition

**HOMEWORK #2**

**HOMEWORK – Introduction to Mathematical Pattern Recognition**

**Issued: 31/01/2020 Due: 6/02/2020**

1. **Problem 1**

A screenshot of a cell phone

Description automatically generated

Figure 1 decision boundary plot

**Motivation**

The problem one is to practice the one versus one algorithm for linear classification. The mean vector is used to compute the distance. The point is measured by distance between two mean vectors. The comparison computation can be transformed into another linear function.

**Result**

In Figure 1, the purple area is the indeterminate region for three classes. The yellow region represents the class Three region. The green region is the class two. The blue region is the class One. All information are shown on the image.

1. **Problem 2**
2. **Problem 3**

see results in the script.