CEG-7570 Project

Part II – Build a Bayesian Classifier

Using the Training data sets created in Part I of the project, we will build a 1-D Bayesian classifier for each Training data set and evaluate the classifier using the corresponding Test data set.

Find the Classifier Parameters: Find the a-priori probability and the class conditional probability density for each class in a data set.

Find the Decision Regions: Find decision boundaries between classes in a data set. Note that the decision boundary between two classes in 1-D is a point. From the decision boundaries, determine the decision regions.

Classification: Having determined the decision regions from a Training data set. Use the classifier to determine the class of each point in the corresponding Test data set.

Evaluation: Knowing the true class of each point in a Test data set, determine the number of points in the Test data set that are correctly classified. Recognition rate will be the number of correctly classified points over the total number of points in the Test data set.

Part II of the project is worth **8 points**.