

Mini Project 4

Deadline: Sunday, April 5, 11:59 PM

Instructor: Dr. Shahryar Rahnamayan, PEng, SMIEEE

Using ANN for Data Classification

Problem:

Design and train your ANNs for classification task of the following datasets, you need to design one ANN per dataset. Randomly select 70% of the data for training and the remaining 30% for testing. You need to report for each case:

- 1) Structure of ANN (number of layers and neurons in each layer), type of utilized activation functions.
- 2) Reporting training plot (error vs. epoch)
- 3) Reporting accuracy of classification by calculating confusion matrix
- 4) Reporting all steps of your design and training of ANNs
- 5) Conclusion remarks

Test Set 1: Iris Data Set

<http://archive.ics.uci.edu/ml/datasets/Iris>

Test Set 2: Breast Cancer Wisconsin (Diagnostic) Data Set

<http://archive.ics.uci.edu/ml/datasets/Breast+Cancer+Wisconsin+%28Diagnostic%29>

Test Set 3: Bank Marketing Data Set

<http://archive.ics.uci.edu/ml/datasets/Bank+Marketing>