

CS669: Pattern Recognition

Programming Assignment-I

ASSIGNMENT DETAILS

Deadline for submission of report:

4.00PM, Sunday, 17th September 2017

Student [Group Details](#) are given here.

Note: Each batch of students must use the datasets identified for that batch only.

The assignment involves building the classifiers for the following three datasets.

Dataset I-(a): 2-dimensional artificial data of 3 classes that are **linearly separable**.

Each class has 500 data points.

Data:

| | | | | |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| [Group-01] | [Group-02] | [Group-03] | [Group-04] | [Group-05] |
| [Group-06] | [Group-07] | [Group-08] | [Group-09] | [Group-10] |
| [Group-11] | [Group-12] | [Group-13] | [Group-14] | [Group-15] |
| [Group-16] | [Group-17] | [Group-18] | [Group-19] | [Group-20] |
| [Group-21] | [Group-22] | | | |

Dataset I-(b): 2-dimensional artificial data of 2 or 3 classes that are **nonlinearly separable**.

The number of examples in each class and their order is given at the beginning of each file.

Data:

| | | | | |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| [Group-01] | [Group-02] | [Group-03] | [Group-04] | [Group-05] |
| [Group-06] | [Group-07] | [Group-08] | [Group-09] | [Group-10] |
| [Group-11] | [Group-12] | [Group-13] | [Group-14] | [Group-15] |
| [Group-16] | [Group-17] | [Group-18] | [Group-19] | [Group-20] |
| [Group-21] | [Group-22] | | | |

Dataset II : Real world data of 3 classes

The real world data sets correspond to the formant frequencies F1 and F2 for vowel utterances.

Data:

| | | | | |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| [Group-01] | [Group-02] | [Group-03] | [Group-04] | [Group-05] |
| [Group-06] | [Group-07] | [Group-08] | [Group-09] | [Group-10] |
| [Group-11] | [Group-12] | [Group-13] | [Group-14] | [Group-15] |
| [Group-16] | [Group-17] | [Group-18] | [Group-19] | [Group-20] |
| [Group-21] | [Group-22] | | | |