

We are performing an analysis of microscopy images. We segmented the images and then identified each cell. For each cell, multiple image features are extracted.

The data is in the file **image.csv**.

We want to reduce the dimension of the data using PCA.

Perform PCA on this data. **Do NOT use** R's ready-made PCA functions for this job.

Submit the following:

a) The R script for this assignment

b) A report in MS Word. Include the following in the report:

1) Name

2) Roll number

3) Show the Scree plot. Axes must be labeled.

4) Mention which two principle components you choose for further study.

5) Show a 2-dimensional scatter plot showing the projected data on the selected two principal components. Axes must be labeled.