## **Department of Computer Science & Engineering**

Final Year B. Tech. (CSE) - I: 2021-22

4CS462 : PE2 - Data Mining Lab

## Assignment No. 4

Use / extend the data analysis tool (menu driven GUI) developed in Assignment No. 2 to perform the following classification task :

- 1. Implement the decision tree classifier using the following attribute selection measures and graphically show/visualize the tree:
  - a. Information Gain
  - b. Gain Ratio
  - c. Gini Index
- 2. Tabulate the results in confusion matrix and evaluate the performance of above classifier using following metrics :
  - a) Recognition rate
  - b) Misclassification rate
  - c) Sensitivity
  - d) Specificity
  - e) Precision & Recall
- 3. Use the following categorical data sets from UCI machine learning repository:
  - a. Balance Scale data set
  - b. Car evaluation data set
  - c. Breast-cancer data set

Deadline: 26/09/2021

Dr. B. F. Momin Course Teacher