

# CLASSIFICATION ASSIGNMENT

## 1.RANDOM FOREST

1.What is the percentage of correct classification of both inputs to the total input of test set?

ANS: Accuracy =0.90

2.what is the percentage of correct classification of 1 to the total input of test set?

ANS: Recall=0.86

3. what is the percentage of correct classification of 0 to the total input of test set?

ANS: Recall=0.92

4. . what is the percentage of correct classification of 0 to sum of correctly classified as 0 and wrongly classified as 0 in the test set?

ANS: Precision=0.93

5. what is the percentage of correct classification of 1 to sum of correctly classified as 1and wrongly classified as 1 in the test set?

ANS: Precision=0.86

6.what is the overall performance of 1?

ANS: f1 measure =0.87

7. what is the overall performance of 0?

ANS: f1 measure=0.92

8.what is average performance of precision?

ANS:Macro average=0.89

9. what is average performance of recall?

ANS:Macro average=0.90

10. what is average performance of F1-measure?

ANS: Macro average=0.90

11. What is the sum of product of proportion rate (weight) of each class (precision)?

ANS: weighted average=0.90

12. What is the sum of product of proportion rate (weight) of each class (recall)?

ANS: weighted average=0.90

13. What is the sum of product of proportion rate (weight) of each class (f1-measure)?

ANS: : weighted average=0.90

### **DECISION TREE**

1. What is the percentage of correct classification of both inputs to the total input of test set?

ANS: Accuracy =0.87

2. what is the percentage of correct classification of 1 to the total input of test set?

ANS: Recall=0.88

3. what is the percentage of correct classification of 0 to the total input of test set?

ANS: Recall=0.84

4. . what is the percentage of correct classification of 0 to sum of correctly classified as 0 and wrongly classified as 0 in the test set?

ANS: Precision=0.90

5. what is the percentage of correct classification of 1 to sum of correctly classified as 1 and wrongly classified as 1 in the test set?

ANS: Precision=0.82

6. what is the overall performance of 1?

ANS: f1 measure =0.90

7. what is the overall performance of 0?

ANS: f1 measure=0.83

8. what is average performance of precision?

ANS: Macro average=0.86

9. what is average performance of recall?

ANS: Macro average=0.87

10. what is average performance of F1-measure?

ANS: Macro average=0.90

11. What is the sum of product of proportion rate (weight) of each class (precision)?

ANS: weighted average=0.86

12. What is the sum of product of proportion rate (weight) of each class (recall)?

ANS: weighted average=0.87

13. What is the sum of product of proportion rate (weight) of each class (f1-measure)?

ANS: : weighted average=0.87

### SUPPORT VECTOR MACHINE

1. What is the percentage of correct classification of both inputs to the total input of test set?

ANS: Accuracy =0.68

2. what is the percentage of correct classification of 1 to the total input of test set?

ANS: Recall=0.99

3. what is the percentage of correct classification of 0 to the total input of test set?

ANS: Recall=0.14

4. . what is the percentage of correct classification of 0 to sum of correctly classified as 0 and wrongly classified as 0 in the test set?

ANS: Precision=0.67

5. what is the percentage of correct classification of 1 to sum of correctly classified as 1 and wrongly classified as 1 in the test set?

ANS: Precision=0.88

6. what is the overall performance of 1?

ANS: f1 measure =0.25

7. what is the overall performance of 0?

ANS: f1 measure=0.80

8. what is average performance of precision?

ANS: Macro average=0.77

9. what is average performance of recall?

ANS: Macro average=0.57

10. what is average performance of F1-measure?

ANS: Macro average=0.52

11. What is the sum of product of proportion rate (weight) of each class (precision)?

ANS: weighted average=0.74

12. What is the sum of product of proportion rate (weight) of each class (recall)?

ANS: weighted average=0.68

13. What is the sum of product of proportion rate (weight) of each class (f1-measure)?

ANS: : weighted average=0.51

**RANDOM FOREST CLASSIFICATION IS BEST MODEL =0.91**