Hu Moments -> Head

Correctness report for : **K Nearest Neighbour**

Precision: 0.944

Recall: 0.944

F1 Score: 0.933

Confusion Matrix:

[[ 3 0 0 0 0 0]

[ 0 3 0 0 0 0]

[ 0 0 2 0 0 0]

[ 0 0 1 2 0 0]

[ 0 0 0 0 2 0]

[ 0 0 0 0 0 11]]

Classification Report:

precision recall f1-score support

0 1.00 1.00 1.00 3

1 1.00 1.00 1.00 3

2 0.67 1.00 0.80 2

3 1.00 0.67 0.80 3

4 1.00 1.00 1.00 2

5 1.00 1.00 1.00 11

accuracy 0.96 24

macro avg 0.94 0.94 0.93 24

weighted avg 0.97 0.96 0.96 24

Correctness report for : **Random Forest**

Precision: 0.944

Recall: 0.944

F1 Score: 0.933

Confusion Matrix:

[[ 3 0 0 0 0 0]

[ 0 3 0 0 0 0]

[ 0 0 2 0 0 0]

[ 0 0 1 2 0 0]

[ 0 0 0 0 2 0]

[ 0 0 0 0 0 11]]

Classification Report:

precision recall f1-score support

0 1.00 1.00 1.00 3

1 1.00 1.00 1.00 3

2 0.67 1.00 0.80 2

3 1.00 0.67 0.80 3

4 1.00 1.00 1.00 2

5 1.00 1.00 1.00 11

accuracy 0.96 24

macro avg 0.94 0.94 0.93 24

weighted avg 0.97 0.96 0.96 24

Correctness report for : **Decision Tree**

Precision: 0.944

Recall: 0.944

F1 Score: 0.933

Confusion Matrix:

[[ 3 0 0 0 0 0]

[ 0 3 0 0 0 0]

[ 0 0 2 0 0 0]

[ 0 0 1 2 0 0]

[ 0 0 0 0 2 0]

[ 0 0 0 0 0 11]]

Classification Report:

precision recall f1-score support

0 1.00 1.00 1.00 3

1 1.00 1.00 1.00 3

2 0.67 1.00 0.80 2

3 1.00 0.67 0.80 3

4 1.00 1.00 1.00 2

5 1.00 1.00 1.00 11

accuracy 0.96 24

macro avg 0.94 0.94 0.93 24

weighted avg 0.97 0.96 0.96 24

Correctness report for : **SVC**

Precision: 0.117

Recall: 0.220

F1 Score: 0.152

Confusion Matrix:

[[0 0 0 0 1 2]

[0 0 0 0 0 3]

[0 0 0 0 0 2]

[0 0 0 0 0 3]

[0 0 0 0 1 1]

[0 0 0 0 2 9]]

Classification Report:

precision recall f1-score support

0 0.00 0.00 0.00 3

1 0.00 0.00 0.00 3

2 0.00 0.00 0.00 2

3 0.00 0.00 0.00 3

4 0.25 0.50 0.33 2

5 0.45 0.82 0.58 11

accuracy 0.42 24

macro avg 0.12 0.22 0.15 24

weighted avg 0.23 0.42 0.29 24

Hu Moments -> Tail

Correctness report for : **Random Forest**

Precision: 0.108

Recall: 0.333

F1 Score: 0.163

Confusion Matrix:

[[5 0 0 0 0 0]

[0 2 0 0 0 0]

[0 2 0 0 0 0]

[4 1 0 0 0 0]

[6 0 0 0 0 0]

[1 1 0 0 0 0]]

Classification Report:

precision recall f1-score support

0 0.31 1.00 0.48 5

1 0.33 1.00 0.50 2

2 0.00 0.00 0.00 2

3 0.00 0.00 0.00 5

4 0.00 0.00 0.00 6

5 0.00 0.00 0.00 2

accuracy 0.32 22

macro avg 0.11 0.33 0.16 22

weighted avg 0.10 0.32 0.15 22

Correctness report for : **K Nearest Neighbour**

Precision: 0.083

Recall: 0.167

F1 Score: 0.111

Confusion Matrix:

[[5 0 0 0 0 0]

[0 0 0 0 2 0]

[0 0 0 0 2 0]

[4 0 0 0 1 0]

[0 0 0 0 0 6]

[1 0 0 0 1 0]]

Classification Report:

precision recall f1-score support

0 0.50 1.00 0.67 5

1 0.00 0.00 0.00 2

2 0.00 0.00 0.00 2

3 0.00 0.00 0.00 5

4 0.00 0.00 0.00 6

5 0.00 0.00 0.00 2

accuracy 0.23 22

macro avg 0.08 0.17 0.11 22

weighted avg 0.11 0.23 0.15 22

Correctness report for : **Decision Tree**

Precision: 0.108

Recall: 0.333

F1 Score: 0.163

Confusion Matrix:

[[5 0 0 0 0 0]

[0 2 0 0 0 0]

[0 2 0 0 0 0]

[4 1 0 0 0 0]

[6 0 0 0 0 0]

[1 1 0 0 0 0]]

Classification Report:

precision recall f1-score support

0 0.31 1.00 0.48 5

1 0.33 1.00 0.50 2

2 0.00 0.00 0.00 2

3 0.00 0.00 0.00 5

4 0.00 0.00 0.00 6

5 0.00 0.00 0.00 2

accuracy 0.32 22

macro avg 0.11 0.33 0.16 22

weighted avg 0.10 0.32 0.15 22

Correctness report for : **SVC**

Precision: 0.188

Recall: 0.333

F1 Score: 0.204

Confusion Matrix:

[[0 0 0 0 0 5]

[0 0 0 0 0 2]

[0 0 0 0 0 2]

[0 0 0 0 0 5]

[0 0 0 0 6 0]

[0 0 0 0 0 2]]

Classification Report:

precision recall f1-score support

0 0.00 0.00 0.00 5

1 0.00 0.00 0.00 2

2 0.00 0.00 0.00 2

3 0.00 0.00 0.00 5

4 1.00 1.00 1.00 6

5 0.12 1.00 0.22 2

accuracy 0.36 22

macro avg 0.19 0.33 0.20 22

weighted avg 0.28 0.36 0.29 22