

**Centre for ARTIFICIAL INTELLIGENCE
TKM COLLEGE OF ENGINEERING, Kollam**

Semester II

Advanced Computing Lab

TUTORIAL QUESTION: SET 1

Instructions:

a) Refer videos from

Session 1:

https://drive.google.com/file/d/15IYHZppzcBo9NR_pu2UhUUNHIDVrBG_H/view?usp=sharing

Session 2: <https://drive.google.com/file/d/13oRLBOItJGpl-7Y8DmHjC7x7R-MtbnGC/view?usp=sharing>

- b) You can use any Platforms for execution (Google colab/Anaconda..)
- c) Place both your screenshots (of code and results) and codes (in notepad/word) in respective folders mentioned in last class.
- d) Your submissions on right time will be taken for internal calculations.

1. Perform SVM on irisexcel.csv and predict species for:

Trial 1:

[3.7, 4.9, 5.2, 3.3] (Common to all)

Trial 2:

Roll no 1: [2.5, 3.8, 4.6, 5.2]

Roll no 2: [2.7, 3.8, 4.8, 5.2]

Roll no 3: [2.9, 3.8, 5.0, 5.2]

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Download irisexcel.csv from

https://drive.google.com/file/d/1M5QuGtEK5uKn5IkeR0ReN9o_vKrg6hL/view?usp=sharing

2. Justify your observations in Difference between your Trial 1 & Trial 2 Results. (You may attach a notepad file)

3. Download file from

<https://www.kaggle.com/rashikrahmanpritom/heart-attack-analysis-prediction-dataset>, perform the following in file heart.csv

Use columns **trtbps, chol, thalachh, oldpeak** as **FEATURES** and

output as **CLASS LABELS** to train both SVM and Naïve Bayes(NB).

Predict **output** for **130, 240, 120, 3.7** using both.

Hint:

```
from sklearn.naive_bayes import GaussianNB
```

```
ML= GaussianNB()
```

[https://scikit-learn.org/stable/modules/naive_bayes.html]

4. Split **heart.csv** into Training & Testing set as:

Roll No 1: Training set : 70% Testing set: 30 %

Roll No 2: Training set : 72% Testing set: 28 %

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Evaluate ACCURACY using SVM. (Use same features in Qn 3).

Happy Learning !!