

## Assignment 5 – Support Vector Machine

### Question 1

Using what you have learnt in the lecture, search for additional resources related to the following two approaches.

- Two-class Support Vector Machine
- Two-class Locally-Deep Support Vector Machine (MSR)

Read - <http://research.microsoft.com/en-us/um/people/manik/pubs/Jose13.pdf>

Explain what's the differences between the two algorithms, and provide examples of when you will prefer to use one over the other.

### Question 2

For this exercise, we will use the **veh-prime.arff** file, and support vector machines for classification.

### Notes

- As a first step you will need to modify the .arff file so that the car, noncar classes are re-placed with 1 and -1 respectively.
- Consider use 10 fold cross-validation (this should come up as the default)

Try various parameters, and explain what you observe.