

**Lab 4**  
**EC9630: Machine Learning**  
**Chapter 7: Support Vector Machines**  
**Duration: 3 Hours**  
**Support Vector Machines**

**SVM for classification.**

**Using different kernels in SVM.**

**Introducing K-fold Cross validation**

1. You are requested to use HCV dataset directly from UCI data repository. However, you can use any classification dataset for this purpose.
2. Prepare your dataset for learning.
3. First, Split your dataset into training set and test set. Build SVM using following kernels and measure the performance of your model.
  - (a) Linear Kernel
  - (b) Polynomial Kernel
  - (c) RBF kernel
4. Now, do the same exercise using 10-fold and 5-fold cross validation and interpret your result in the proper way.
- 5.