# INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY THIRUVANANTHAPURAM

## Assignment #3

Due on 22-04-2015

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## **Assignment 3**

### Analyse of Ionosphere data using SMO

No. of data points :351

No. of items in positive class :225

No. of items in negative class :126

No. of misclassifications :88

accuracy :0.749

precision :0.719

recall/sensitivity :1.000

F-Measure :0.836

No. of support vectors:52

Bias:-6.111186

C=8

kernel used: gaussian(gama=0.7)

### Cost function v/s iteration plot

Fig.1 shows the variation of dual objective( $W(\alpha)$ ) over iteration.

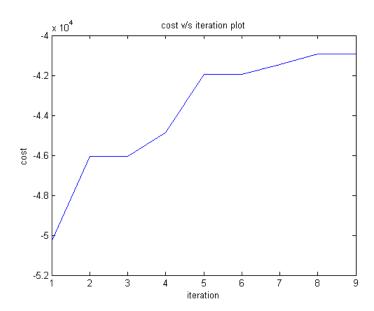


Figure 1:  $W(\alpha)$  v/s iterations plot