**SVM classifier program on R:**

library(e1071)

library(class)

sensorTagData <- read.csv("D:/Data/Book3.csv", header=FALSE)

head(sensorTagData)

# Assign names for the data vectors

names(sensorTagData) <- c("Time.Stamp", "Lux", "Ambient.Temperature", "Object.Temperature", "Pressure", "Temperature.Humidity", "Humidity", "Label")

#Preparing Training and Testing Datasets

index <- createDataPartition(sensorTagData$Label,p=0.67, list=FALSE)

# subset training set with index

sensorData.train <- sensorTagData[index,]

# Subset test set with index

sensorData.test <- sensorTagData[-index,]

model\_svm <- svm(sensorData.train$Label~.,data = sensorData.train[2:3], kernel='linear', type='C-classification',gamma=0.2,cost=100)

summary(model\_svm)

pred = predict(model\_svm,sensorData.test[2:3])

plot(pred)

table(pred,sensorData.test$Label)

mean(pred==sensorData.test$Label)

confusionMatrix(pred,sensorData.test[,8])

library(gmodels)

CrossTable(x = sensorData.test[,8],y = pred, prop.chisq=FALSE)