Abstract

In this paper we have brought out the analysis and comparison of cost parameter validation in Support vector machine using two different kernel mappings i.e. the linear and the Hellinger kernel. This paper also shows and discusses the results of the addition of positive images to the respective class of images with different cost parameters. The analysis is carried out using Matlab R2009a and C environment. The results obtained show that the increase in cost parameter for linear kernel gives much better results whereas for Hellinger kernel the performance decreases as cost parameter is increased. In the other hand, two classes of images are taken and they are tested by increasing the number of positive images gradually and the results show that the addition of positive class of images to a database can increase the performance of the system employed.

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**Index Terms**

Computer Science  
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**Keywords**

Cost parameter  
Hellinger Kernel  
Image Classification  
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Linear kernel

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Support Vector Machine