Abstract

In this paper, the basic concepts and survey of the available literature on Support Vector Machines (SVM) in data mining and soft computing research area is provided. While at the time of survey several new methods were found related to SVM like as Support Vector Representation and Discrimination Machine (SVRDM), Recursive SVM (RSVM), On-line Independent SVM (OISVM), Pruning SVM, Fast Nearest Neighbor Condensation classifier (FCNN-SVM), Improved SV Clustering (iSVC), Cost-sensitive SVM (2v-SVM), 2C-SVM, Profile SVM (PSVM), Twin SVM (TWSVM), Twin Bounded SVM (TBSVM), Parametric-margin n-SVM (par-n-SVM), Twin Parametric-Margin SVM (TPMSVM), Structural Twin SVM (S-TWSVM), Hierarchical Linear SVM (H-LSVM), Bio-SVM, FuzzySVM-CIL, Kernel Fuzzy C-Means clustering-based Fuzzy SVM (KFCM-FSVM), Multi-Class Instance Selection (MCIS). After studied these methods a comparative and analytical survey upon those methods are presented here. Also a large future scope is available on several techniques and they are discussed in this paper.

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**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Data Mining  
Soft Computing  
SVM  
Maximum Margin  
Soft-Margin  
Kernel Trick.