



## A NEW DISTANCE MEASURE EMPLOYING ELEMENT-SIGNIFICANCE FACTORS FOR ROBUST IMAGE CLASSIFICATION (WedPmPO2)

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★ Abstract :

A new simple distance measure has been proposed in which each vector element is weighted in the distance calculation according to its importance as determined by taking its statistics into account. In order to reflect the characteristic of the class, the element-significance factors are calculated based on intraclass variances and mean values of vector elements and utilized in the distance measure. The proposed distance measure has been applied to the face detection system and the cephalometric landmarks identification system which we developed in other work. Improved performances in image classification have been demonstrated.