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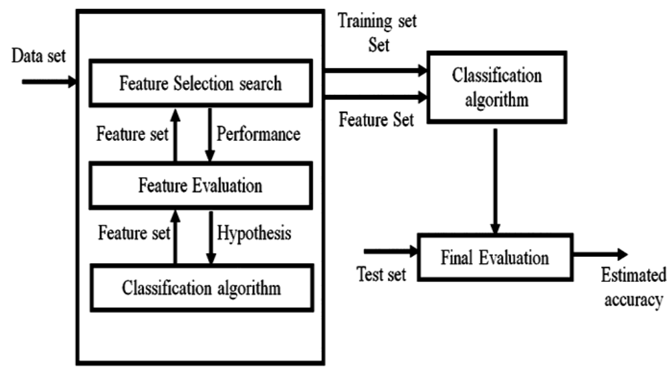
CONTENTS

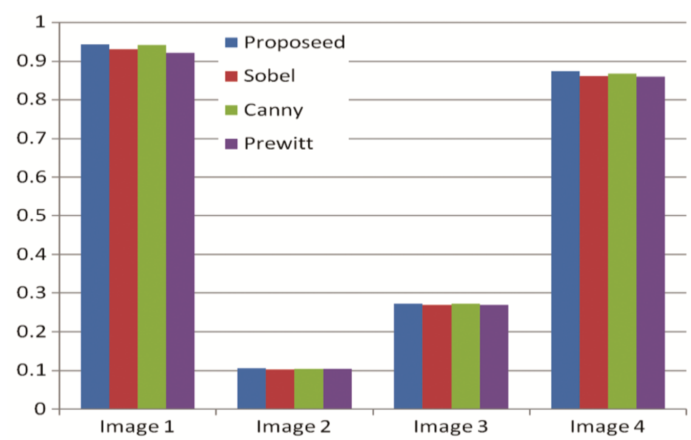
Management & Information Technology

CONTENTS

In classification problems, algorithm and feature selection plays a major role. The features selected may vary the classification accuracy of different classifier algorithms. So it’s necessary to apply efficient methods of feature selection before designing the classifier. In this paper, focal and non-focal intracranial Electroencephalographic (iEEG) signal classification aided by Genetic Algorithm (GA) for optimal feature selection is proposed for Support Vector Machines (SVM), k-Nearest Neighborhood (k-NN) and Feed Forward Neural Network (FFNN) classifiers. Statistical features from raw signal and Discrete Wavelet Transforms (DWT) were extracted from iEEG signal to have pool of features from which the optimal feature sets are selected by GA. The results of each classifier were compared based on their selected features and performance estimates.



Object boundary detection is the process of finding instances of real-world objects such as faces, bicycles and building limitations in an image. Shadow image Boundary detection is a pre-processing technique in image processing. A solid shadow image object contains boundaries of the type Step, Roof, Ramp and Spike. The traditional methods of shadow image boundary detection are sensitive to the noise and cannot identify the boundaries correctly. Photon noise, Blurring, Irregularities of the surface structure of objects are the factors affecting the state of arts boundary detection techniques. This paper presents a content based boundary detection technique with the help of a highpass frequency filtering algorithm and morphological erosion structural element. The erosion element is used to reconstruct the damaged region of the shadow image boundary. The boundary detection technique Canny,Prewitt, Sobel and proposed algorithm experiment over the entire Shadow image dataset and the proposed algorithm shows a better result in the peak-signal-to-noise ratio (PSNR).The performance evaluation of the proposed technique based on the peak-signal-to-noise ratio is presented.



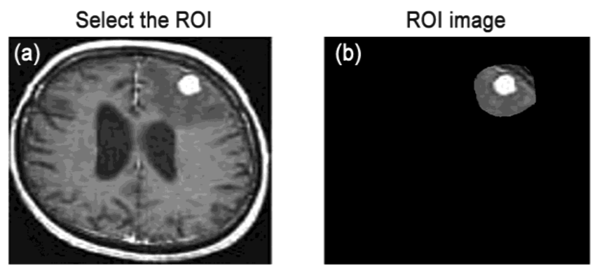
CONTENTS

S & T and Industrial Research

CONTENTS

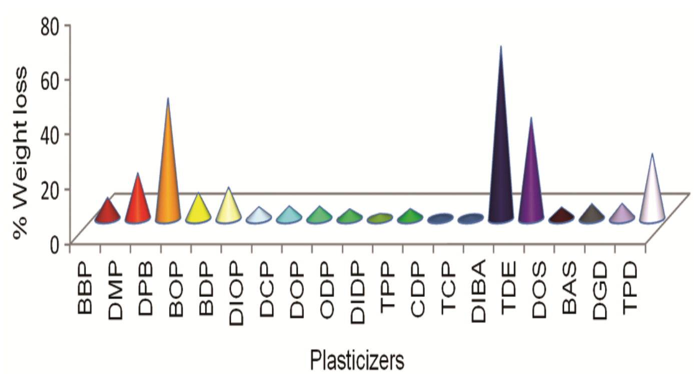
CONTENTS

In the recent times Defence Radar and Medical technology used image processing as a useful tool for analysis of information contained in the images. In this paper the technique of focusing the analysis on the region of interest (ROI) and applying different compression methods on the ROI and outside ROI for appreciable compression. The results presented in this paper provided excellent performance with the proposed approach in which SPIHT and the HAAR are involved for segmentation, compression and further fusion. Further the performance showed its performance when compared with the other two techniques in terms of various image metrics.



Short Communication

Purepoly vinyl chloride (PVC) has limited application and mostly uses as its short and long life products. PVC waste projection is complex owing to the diversified life of all its products. This article presents a simple approach for future PVC waste projection using life- expectancy and production data. From past 52-years PVC production data straight line and projection equations were generated and by comparing these with their life- expectancy mathematical equation for future PVC waste is projected. The following equation is proposed under limitation that the initial data collection is always greater than waste projection minus life expectancy year: PVC waste (product based) = [m {(waste projection year- life expectancy) - initial data collection year} + c]



Author-Reader Platform

CONTENTS

Author Index

Keyword Index