World Academy of Science, Engineering and Technology
International Journal of Electrical and Computer Engineering
Vol:9, No:01, 2015

# Diagnosis and Analysis of Automated Liver and Tumor Segmentation on CT

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**Abstract :** For view the internal structures of the human body such as liver, brain, kidney etc have a wide range of different modalities for medical images are provided nowadays. Computer Tomography is one of the most significant medical image modalities. In this paper use CT liver images for study the use of automatic computer aided techniques to calculate the volume of the liver tumor. Segmentation method is used for the detection of tumor from the CT scan is proposed. Gaussian filter is used for denoising the liver image and Adaptive Thresholding algorithm is used for segmentation. Multiple Region Of Interest(ROI) based method that may help to characteristic the feature different. It provides a significant impact on classification performance. Due to the characteristic of liver tumor lesion, inherent difficulties appear selective. For a better performance, a novel proposed system is introduced. Multiple ROI based feature selection and classification are performed. In order to obtain of relevant features for Support Vector Machine(SVM) classifier is important for better generalization performance. The proposed system helps to improve the better classification performance, reason in which we can see a significant reduction of features is used. The diagnosis of liver cancer from the computer tomography images is very difficult in nature. Early detection of liver tumor is very helpful to save the human life.

**Keywords :** computed tomography (CT), multiple region of interest(ROI), feature values, segmentation, SVM classification
**Conference Title :** ICSIP 2015 : International Conference on Signal and Image Processing
**Conference Location :** Singapore, Singapore
**Conference Dates :** January 08-09, 2015