Abstract

Lung cancer has been the reason for fatality for many people in recent years. The manifestation of lung nodules is the prominent reason of lung cancer. Early detection of cancer facilitates early treatment which improves the chance of survival of patients. The most trivial way to discover lung cancer is by working with Computed Tomography (CT) image. Computer Aided Diagnosis (CAD) is a system that is designed by the integration of medical science and computers. A CAD system that is used for the diagnosis of lung cancer accepts lung CT images as input and depending on an algorithm helps doctors to implement image analysis. It includes three main steps to detect lung nodule: preprocessing, segmentation and classification of cancer nodule using support vector machine (SVM). With the aid of CAD, doctors can take the last word. Images include some redundant data and some feature that are critical for processing; pre-processing upgrade images by eliminating distortion and boost the important features. After pre-processing step the lung cancer nodule is drawn out. The obtained image through previous steps is used for training and finding the accuracy of the system in detecting cancer.
References


5. Lung Cancer Diagnosis Using CT-Scan Images Based on Cellular Learning Automata Nooshin Hadavi¹, Md.Jan Nordin², Ali Shojaeipour³Center for Artificial Intelligence Technology (CAIT) Faculty of Information Science & Technology Universiti Kebangsaan Malaysia 43600, Bangi, Malaysian.hadavi@ftsm.ukm.my¹, jan@ftsm.ukm.my², a.shojaeipour@ftsm.ukm.my³


10. Edge Improvement of Clustered Soybean Seeds by using Sobel Filter Sukhjinder Kaur Archna Mahajan Asst. Prof. (ECE) M.Tech (ECE) SSIET, Dera Bassi SSIET


12. Chapter 7 - Morphological operation on binary images: users.utcluj.ro/~rdanescu/Pl-L7e.pdf


16. Segmentation of Lungs from CT Scan Images for Early Diagnosis of Lung Cancer
Nisar Ahmed Memon, Anwar Majid Mirza, and S.A.M. Gilani


Index Terms

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Applied Sciences

Keywords

Segmentation, Dilation, Erosion, Support Vector Machine (SVM), Classifier.