MALLA REDDY COLLEGE
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DEPARTMENT OF COMPUTATIONAL INTELLIGENCE

III YEAR CSE - AIML I SEM

COURSE: APPLICATION DEVELOPMENT - 1 COURSE CODE: R22A66923

DETECTION OF LUNG CANCER FROM CT IMAGE USING SVM CLASSIFICATION AND COMPARE THE SURVIVAL RATE OF PATIENT USING CNN

ABSTRACT

This project demonstrates a computer-aided diagnosis (CAD) system for lung cancer classification of CT scans with unmarked nodules, a dataset from the Kaggle Data Science Bowl, 2017. The early detection of lung cancer plays a crucial role in improving patient survival rates. In this study, we propose a method for the detection of lung cancer from CT images using Support Vector Machine (SVM) classification. Initially, a dataset of CT images is preprocessed to extract relevant features, which are then used to train the SVM classifier. The trained classifier is then applied to new CT images for the detection of lung cancer through the combination of SVM classification for detection and 3D CNN for survival rate comparison, this study aims to contribute to the advancement of lung cancer diagnosis and prognosis, potentially leading to improved patient outcomes.

Keywords: SVM, CT Scan Image , CNN.

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