



NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	AG6
TEAM MEMBERS	A. Akhila(20471A0502) G.Tejaswini(20471A0515) G. Lilly (20471A0517)
GUIDE	N. Vijay Kumar
TITLE	Lung Cancer Detection Using Machine Learning
DOMAIN/TECHNOLOGY	MACHINE LEARNING
BASE PAPER LINK	https://www.researchgate.net/publication/374162060_Machine_Learning_Techniques_for_Lung_Cancer_Risk_Prediction_using_Text_Dataset
DATASET LINK	https://www.kaggle.com/code/casper6290/lung-cancer-prediction-98/input
SOFTWARE REQUIREMENTS	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
HARDWARE REQUIREMENTS	Processor: Intel® Dual Core 2.0GHz minimum Hard Disk: 1TB minimum RAM: 8GB or more

ABSTRACT

The early symptoms of lung cancer, a serious threat to human health, are comparable to those of the common cold and bronchitis. Clinical professionals can use machine learning techniques to customize screening and prevention strategies to the unique needs of each patient, potentially saving lives and enhancing patient care. Researchers must identify linked clinical and demographic variables from patient records and further preprocess and prepare the dataset for training a machine-learning model in order to properly predict the development of lung cancer. The goal of the study is to develop a precise and understandable machine learning (ML) model for early lung cancer prediction utilizing demographic and clinical variables, as well as to contribute to the growing field of medical research ML application that may improve healthcare outcomes. In order to create the most effective and precise predictive model, machine learning techniques like Logistic Regression, Decision Tree, Random Forest, Support Vector Machine, K Nearest Neighbor (KNN), and Naive Bayes were utilized.