NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	BB1
TEAM MEMBERS	M. Gopi Trinadh (20471A0595) K.V.M. Pavan Kiran (21475A0592) Y. Gopanjaneyulu (21475A05C@)
GUIDE	M. Sathyam Reddy
TITLE	Pneumonia Detection using Deep Learning
DOMAIN/TECHNOLOGY	DEEP LEARNING
BASE PAPER LINK	https://ieeexplore.ieee.org/document/9823625
DATASET LINK	https://www.kaggle.com/datasets/paultimothymooney/chest-xray-pneumonia
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 global challenge of pneumonia, a severe infectious disease-causing millions of deaths annually. Recognizing the critical need for early detection, especially, the main diagnostic method for this illness is chest x-rays where this study proposes a solution using deep learning. Leveraging the EfficientNetB3 architecture, the model is learned from massive dataset of chest X-ray images to accurately discern between normal and pneumonia-affected lungs. The envisioned outcome is a deployable deep learning tool that can significantly enhance the speed and precision of pneumonia detection in medical facilities, facilitating timely interventions and ultimately contributing to saving lives and reducing the overall impact of pneumonia on communities where our model has greater training, testing and validation accuracies as greater as make the decision making in medical industry.