MALLA REDDY UNIVERSITY

(As per Telangana State Private Universities Act No.11 of 2018 and G.O.Ms.No.14, Higher Education (UE) Department)

# III Year AD Project Registration Form

**Name of the Guide**: **Prof. R.KARTHIK**
**Year: III Year-II Sem**
**Title of the Project:** Automated COPD Detection with CNNs in CT Scans


## Abstract:

This study presents an automated approach for early detection of Chronic Obstructive Pulmonary Disease (COPD) using Convolutional Neural Networks (CNNs) on Computed Tomography (CT) scans. The methodology involves preprocessing CT images to enhance features, followed by a CNN trained to recognize patterns indicative of these respiratory conditions. Performance evaluation using sensitivity, specificity, and accuracy metrics on diverse patient datasets demonstrates the model's effectiveness. Robustness testing across different imaging devices and acquisition protocols further validates its reliability. The CNN-based approach proves successful in accurately identifying COPD, offering a promising tool for early disease detection. The proposed system has the potential to enhance diagnostic efficiency, reduce reliance on manual interpretation, and contribute to advancements in personalized treatment strategies for respiratory diseases.


**Student Batch Details :**

| Student Name | Roll Number | Section Details |
|---|---|---|
| U.NIKHIL | 2111CS020314 | Delta |
| B. NIKITHA | 2111CS020318 | Delta |
| K. NITHYA SREE | 2111CS020326 | Delta |
| B. POOJITHA | 2111CS020342 | Delta |
| K. PRAVALLIKA | 2111CS020359 | Delta |

**Guide Sign** **Project Coordinator** **HOD- AIML**