NARASARAOPETA ENGINEERING COLLEG AUTONOMOUS
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (2025-26)

Batch Number	BG4
Team Members	V.Bhavana(22471A05D6) R.Bhargavi(22471A05C4) G.Deepthi(22471A0588)
Guide	Ch.Rajani MTech
Title	Automated Tool Support for Glaucoma Identification With Explainability Using Fundus Images
Domain/Technology	Deep Learning
Base Paper Link	https://ieeexplore.ieee.org/document/10416867
Dataset Link	https://www.kaggle.com/datasets/arnavjain1/glaucoma-datasets
Software Requirements	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
Hardware Requirements	System Type: Intel Core i5 or above RAM: 8 GB, Number of cores:5, Number of Threads: 4
Abstract	This project presents an automated deep learning-based approach for glaucoma detection using fundus images. The system segments the optic disc and optic cup using an Attention U-Net model and classifies glaucoma conditions with a modified Inception V3 architecture. To enhance trust and interpretability, explainable AI techniques such as Grad-CAM and Grad-CAM++ are used to highlight important image regions influencing predictions. The approach is implemented using publicly available datasets and deployed as a user-friendly web application to assist clinicians in glaucoma screening and decision-making.

Signature of the student(s) **Signature of the Guide** **Signature of the project coordinator**