CODE	TITLE	DESCRIPTION
VTPAI01	Eye-LRCN: A Long-Term Recurrent Convolutional Network for Eye Blink Completeness Detection	This project aims to develop Eye-LRCN, a long-term recurrent convolutional network for detecting the completeness of eye blinks, potentially contributing to various applications in human-computer interaction and healthcare
VTPAI02	Explainable AI Based Neck Direction Prediction and Analysis During Head Impacts	This project explores the use of explainable AI for predicting neck direction and analyzing head impacts, potentially contributing to injury prevention and safety measures.
VTPAI03	A Novel Digital Audio Encryption and Water Marking Scheme	This project proposes a novel scheme for encrypting and watermarking digital audio content, potentially enhancing data security and copyright protection
VTPAI04	Advanced Encryption for Quantum-Safe Video Transmission	This project investigates advanced encryption techniques for secure video transmission in a quantum computing era, addressing potential threats to data confidentiality
VTPAI05	Secret Image Sharing using Shamir Secret Rule	This project explores the use of Shamir's Secret Sharing scheme for secure distribution and reconstruction of secret images, potentially enhancing data privacy and security.
VTPAI06	AI Model for Identification of Micro-Nutrient Deficiency in Banana Crop	This project develops an AI model for identifying micro-nutrient deficiencies in banana crops, potentially aiding in precision agriculture and improving crop yields
VTPAI07	A Novel Medical Image Encryption Scheme Based on Deep Learning Feature Encoding and Decoding	This project proposes a novel medical image encryption scheme based on deep learning feature encoding and decoding, potentially enhancing patient data privacy and security
VTPAI08	Efficient Anomaly Detection Algorithm for Heart Sound Signal	This project focuses on developing an efficient algorithm for detecting anomalies in heart sound signals, potentially
VTPAI09	Stroke Prediction Using XGBoost and a fusion of XGBoost with Random Forest	This project investigates the use of XGBoost and its fusion with Random Forest for predicting strokes based on various patient data and risk factors.

CODE	TITLE	DESCRIPTION
VTPAI10	Road Object Detection in Foggy Complex Scenes Based on Improved YOLOv10	This project focuses on developing an efficient algorithm for detecting objects in foggy complex scenes in road
VTPAI11	Jellyfish Detection using Improved YOLO Algorithm	This project explores the use of an improved YOLO algorithm for detecting jellyfish in underwater images.
VTPAI12	Novel Animal Detection System using YOLO With Adaptive Preprocessing and Feature Extraction	This project proposes a novel animal detection system based on YOLO with adaptive preprocessing and feature
VTPAI13	Image Translation and Reconstruction with advanced Neural Networks	This project explores the application of advanced neural networks for image translation and reconstruction tasks, potentially contributing to various applications in computer vision and image processing
VTPAI14	Improved YOLO Algorithm to detect Marine Debris in Surveillance	This project investigates the use of an improved YOLO algorithm for detecting marine debris in surveillance footage, potentially contributing to environmental protection efforts
VTPAI15	Railway Objects Detection by Using Improved YOLO Algorithm	This project explores the application of an improved YOLO algorithm for detecting railway objects, potentially enhancing safety and maintenance operations in the railway industry
VTPAI16	Automatic Detection of Foreign Object Debris on Airport Runway by Using YOLO	This project focuses on developing an automatic system for detecting foreign object debris on airport runways using YOLO, potentially improving aviation safety
VTPAI17	Personalized Book Intelligent Recommendation System	This project recommends Books using collaborative Filtering and included with rating
VTPAI18	Safety Helmet Detection Based on Improved YOLO	This project investigates the use of an improved YOLO algorithm for detecting safety helmets in various environments, potentially contributing to workplace safety measures

CODE	TITLE	DESCRIPTION	
VTPAI19	Efficient Pomegranate Growth Stage Detection Using YOLOv10: A Novel Object Detection Approach	This project investigates the use of an improved YOLO algorithm for detecting growth stages of pomegranate fruit	IEEE 2024 - ARTIFICIAL INTELLIGENCE
VTPAI20	EC-YOLO: Advanced Steel Strip Surface Defect Detection Model Based on YOLOv10	This project investigates the use of an improved YOLO algorithm for detecting any welding points and steel surface scenarios to identify the defect	
VTPAI21	Palm Oil Counter: State-of-the-Art Deep Learning Models for Detection and Counting in Plantations	This project investigates the use of an improved YOLO algorithm for detecting Palm oil fruits in different stages.	
VTPAI22	Detection of Hand Bone Fractures in X-Ray Images Using Hybrid YOLO NAS	This project investigates the use of an improved YOLO algorithm for detecting X-Ray MRI images of fractured hand bones specifically	
VTPAI23	SUNet: Coffee Leaf Disease Detection Using Yolo	This project investigates the use of an improved YOLO algorithm for detecting coffee leaf diseases in various scenarios of 4 types	
VTPNLP01	Gun Sound Recognition Using NLP and YAMNET model	This project explores the use of natural language processing (NLP) and the YAMNet model for recognizing gun sounds, potentially contributing to public safety and security applications	IEEE 2024 - NATURAL LANGUAGE PROCESSING
VTPNLP02	Classification and Recognition of Lung Sounds Based on Improved Bi-ResNet Model	This project investigates the classification and recognition of lung sounds using improved techniques, potentially aiding in the diagnosis of respiratory conditions	
VTPNLP03	Deep Learning Algorithms for Cyber-Bulling Detection in Social Media Platforms	This project explores the use of deep learning algorithms for detecting cyberbullying in social media platforms, potentially contributing to online safety and well-being	
VTPNLP04	Novel Meta Learning Approach for Detecting Postpartum Depression Disorder Using Questionnaire Data	This project proposes a novel meta-learning approach for detecting postpartum depression disorder using questionnaire data, potentially aiding in early diagnosis and intervention	

CODE	TITLE	DESCRIPTION
VTPNLP05	Online Recruitment Fraud (ORF) Detection Using Deep Learning Approaches	This project investigates the use of deep learning approaches for detecting online recruitment fraud, potentially protecting job seekers from scams and fraudulent activities
VTPNLP06	Fake News Detection Using Deep Learning	This project conducts a systematic literature review on the use of deep learning for fake news detection, providing insights into current research and potential future directions.
VTPNLP07	Live Event Detection for People's Safety Using NLP and Deep Learning	This project explores the use of NLP and deep learning for detecting live events that may pose safety risks to people, potentially contributing to disaster response and public safety efforts
VTPNLP08	Socially Aware Synthetic Data Generation for Suicidal Ideation Detection Using Natural Language Processing	This project investigates the generation of socially aware synthetic data for suicidal ideation detection using NLP, potentially aiding in the development of more effective prevention strategies
VTPNLP09	Climate Change Sentiment Analysis Using Natural Language Processing and LSTM Model	This project explores the use of NLP and LSTM models for analyzing sentiment towards climate change in text data, potentially contributing to understanding public opinion and policy-making.
VTPNLP10	Explainable Detection of Depression in Social Media Contents Using Natural Language Processing	This project investigates the use of explainable NLP techniques for detecting depression in social media content, potentially contributing to mental health support and intervention efforts
VTPNLP11	Natural Language Processing and CNN Model for Indonesian Sarcasm Detection	This project explores the use of NLP and CNN models for detecting sarcasm in Indonesian text data, potentially contributing to the development of more sophisticated language processing tools
VTPNLP12	A Novel Customer Review Analysis System Based on Balanced Deep Review and Rating Differences in User Preference	This project explores the NLP and NLTK usage of Review and Rating Differences in user Preference using Sentiment analysis
VTPNLP13	How Do Crowd-Users Express Their Opinions Against Software Applications in Social Media? A Fine-Grained Classification Approach	Crowd-users express their opinions about software applications on social media through diverse feedback

CODE	TITLE	DESCRIPTION	
VTPNLP14	Advanced NLP Models for Technical University Information Chatbots: Development and Comparative Analysis	Advanced NLP models for technical university information chatbots leverage natural language understanding to provide accurate and context-aware responses to student queries about courses, admissions, and facilities. A comparative analysis evaluates these models on parameters like response accuracy, scalability, and user satisfaction, ensuring effective deployment in educational environments	IEEE 2024 - NLP
VTPIP01	On Enhancing Crack Semantic Segmentation Using StyleGAN DeepLabV3 & ResNet50	This project explores the enhancement of crack semantic segmentation by combining StyleGAN with DeepLabV3 and ResNet50, potentially improving infrastructure inspection and maintenance	IEEE 2024 - IMAGE PROCESSING
VTPIP02	Underwater Image Enhancement Based on Conditional Denoising Diffusion Probabilistic Model	This project investigates the use of a conditional denoising diffusion probabilistic model for enhancing underwater images, potentially contributing to marine research and exploration	
VTPIP03	A Universal Field-of-View Mask Segmentation Method on Retinal Images From Fundus Cameras	This project proposes a universal field-of-view mask segmentation method for retinal images from fundus cameras, potentially aiding in the diagnosis and treatment of eye diseases.	
VTPIP04	Deep learning algorithms for Optimized Thyroid Nodule Classification	This project explores the use of deep learning algorithms for optimized classification of thyroid nodules, potentially assisting in medical diagnosis and treatment decisions	
VTPIP05	Multi-Class Medical Image Classification Using Deep learning with Xception Model	This project investigates the application of deep learning with the Xception model for multi-class medical image classification, potentially aiding in various diagnostic tasks	
VTPIP06	Advancing Malaria Identification From Microscopic Blood Smears Using Hybrid Deep Learning Frameworks	This project aims to advance malaria identification from microscopic blood smears by utilizing hybrid deep learning frameworks, potentially improving diagnostic accuracy and speed	
VTPIP07	Segmentation of Aerial Images using U-Net model	This project explores the use of the U-Net model for segmenting aerial images, potentially contributing to various applications in remote sensing and environmental monitoring	
VTPIP08	Development of Convolutional Neural Network to Segment Ultrasound Images of Histotripsy Ablation	This project focuses on developing a convolutional neural network for segmenting ultrasound images of histotripsy ablation, potentially aiding in medical procedures and treatment planning	

CODE	TITLE	DESCRIPTION
VTPIP09	Automated Detection of Spinal Lesions from CT Scans via Deep Transfer Learning	This project investigates the use of deep transfer learning for automated detection of spinal lesions from CT scans, potentially assisting in medical diagnosis and treatment
VTPIP10	Image Processing Techniques for Emotion Recognition	This project explores various image processing techniques for recognizing emotions based on facial expressions or other visual cues, potentially contributing to human-computer interaction and affective computing
VTPIP11	A Lightweight and Multi-Branch Module in Facial Semantic Segmentation Feature Extraction	This project proposes a lightweight and multi-branch module for extracting features in facial semantic segmentation, potentially improving efficiency and accuracy in facial analysis tasks
VTPIP12	A Plant Leaf Disease Image Detection and Classification with Convolutional Neural Networks (CNN) and Opencv	This project investigates the use of convolutional neural networks (CNN) and OpenCV for detecting and classifying plant leaf diseases based on image analysis, potentially aiding in precision agriculture and crop protection
VTPIP13	Dual-Branch Fully Convolutional Segment Anything Model for Lesion Segmentation in Endoscopic Images	This project explores the use of a dual-branch fully convolutional segment anything model for segmenting lesions in endoscopic images, potentially assisting in medical diagnosis and treatment
VTPIP14	Segnet Algorithm Guided Image Channel Selection for Skin Lesion Segmentation	This project investigates the use of the SegNet algorithm for guiding image channel selection in skin lesion segmentation, potentially improving diagnostic accuracy in dermatology
VTPIP15	Image Encryption and Decryption Using AES in CBC Mode with Flask	Image encryption and decryption using AES in CBC (Cipher Block Chaining) mode with Flask involves securely encrypting an image file by dividing it into fixed-size blocks, encrypting each block using AES and a shared secret key, and linking them through chaining for added security
VTPIP16	Efficient Single Infrared Image Super-Resolution	Efficient Single Infrared Image Super-Resolution focuses on enhancing the spatial resolution of a single low-resolution infrared image using advanced algorithms, improving image quality and detail