

A close-up photograph of a young woman with long dark hair and a man with dark hair and glasses. They are both smiling and looking down at a silver laptop screen. The woman is wearing a yellow turtleneck sweater. The man is wearing a dark patterned shirt. The background is slightly blurred, showing what appears to be an office or study environment.

# QRIOCITY

B R O C H U R E



# PREMIUM

Title	Project Description	Project Use-Case Code		Innovation Level	Tags
Deep Learning-Driven Medical Image Analysis for Automated Brain Tumor, Skin Disease, and Alzheimer's Assessment	Automated assessment of brain tumors, skin diseases, and Alzheimer's conditions is carried out through deep learning-driven medical image analysis that supports image-based diagnostic evaluation.	PRJ-001	Medical Imaging, Healthcare	★★★★	Deep Learning, Diagnosis
A Voice-Controlled Real-Time Smart Vision System for Audio-Guided Object Detection and Navigation	Audio-guided object detection and navigation are enabled by a voice-controlled smart vision system that operates in real time to support interactive visual awareness.	PRJ-002	Assistive Navigation, Computer Vision	★★★★★	Voice Control, Object Detection
Comprehensive Skin Disease Identification and Severity Analysis Using Convolutional Neural Networks with Generative AI Recommendations	Skin disease identification and severity analysis are performed using convolutional neural networks, complemented by generative AI to provide condition-specific recommendation support.	PRJ-003	Skin Health, Medical Imaging	★★★★★	CNN, Generative AI
BERT-Based Enhanced Intention Recognition for Large-Scale Banking Customer Queries Using Fine-Tuned Transformer Models	Intention recognition for large-scale banking customer queries is enhanced using fine-tuned BERT-based transformer models to accurately interpret user intent from textual interactions.	PRJ-004	Banking Analytics, Customer Support	★★★★★	BERT, Transformers
SkinScanNet: An End-to-End Deep Learning Framework Using DenseNet201 for Accurate Skin Cancer Diagnosis from Dermoscopy Images	Skin cancer diagnosis from dermoscopy images is carried out end to end using the SkinScanNet framework powered by DenseNet201 to enable accurate visual-based clinical assessment.	PRJ-005	Skin Cancer, Medical Imaging	★★★★★	DenseNet201, Deep Learning
An Integrated Artificial Intelligence Framework for Visual Food Understanding, Quality Safety Assessment, and Individualized Dietary Recommendation	Visual food understanding is combined with quality safety assessment and individualized dietary recommendation through an integrated artificial intelligence framework that analyzes food imagery and nutritional attributes.	PRJ-006	Food Analysis, Nutrition	★★★★★	Computer Vision, Recommendation
Multimodal AI Framework for Psychodermatological Disorder Analysis Integrating Skin Images, Psychological Data, and Gemini-Based Recommendations	Psychodermatological disorder analysis is addressed through a multimodal AI framework that integrates skin images with psychological data and Gemini-based recommendations for holistic assessment.	PRJ-007	Skin Health, Mental Health	★★★★★	Multimodal AI, Gemini



# PREMIUM

Title	Project Description	Project Use-Case Code		Innovation Level	Tags
Explainable Two-Stage Cervical Cancer Detection Framework Using XGBoost-Based Risk Prediction and FastViT Cytological Image Classification	Cervical cancer detection is performed through an explainable two-stage framework that combines XGBoost-based risk prediction with FastViT-driven cytological image classification for transparent clinical assessment.	PRJ-008	Cervical Cancer, Medical Imaging	★★★★★	XGBoost, FastViT
Explainable Mental Health Disorder Identification Using Transformer-Based Text Analysis, Time-Aware Modeling, and Reddit User History Data	Mental health disorder identification is achieved through explainable analysis of transformer-based text representations combined with time-aware modeling of Reddit user history data.	PRJ-009	Mental Health, Text Analysis	★★★★★	Explainable AI, Transformers
A Real-Time Hybrid System for ASL and ISL Sign Language Recognition Using MediaPipe and LSTM	ASL and ISL sign language recognition is performed in real time using a hybrid system that combines MediaPipe-based hand tracking with LSTM sequence modeling.	PRJ-010	Sign Language, Accessibility	★★★★★	MediaPipe, LSTM
Transformer-Based Molecular Property Prediction Using MoLFormer and SMILES Representations	Molecular property prediction is conducted using a transformer-based approach that leverages MoLFormer with SMILES representations to model chemical structure-property relationships.	PRJ-011	Chemoinformatics, Drug Discovery	★★★★★	MoLFormer, Transformers
An Automated Retinal Image Analysis System for Disease and Tumor Classification Using Hybrid Feature Extraction	Retinal disease and tumor classification are achieved through automated image analysis using hybrid feature extraction techniques to support accurate ophthalmic assessment.	PRJ-012	Retinal Health, Medical Imaging	★★★★★	Hybrid Features, Image Analysis
An Integrated YOLO-Based Road Hazard and Driver Distraction Monitoring Framework with Conversational Safety Chatbot	Road hazard detection and driver distraction monitoring are jointly addressed through an integrated YOLO-based framework enhanced with a conversational safety chatbot for real-time assistance.	PRJ-013	Road Safety, Driver Monitoring	★★★★★	YOLO, Chatbot
An AI-Powered Adaptive Engineering Mathematics Assistant Using Gemini API with Formula Pinning and Topic-Based Problem Solving	Engineering mathematics problem solving is supported through an AI-powered adaptive assistant that utilizes the Gemini API with formula pinning and topic-based guidance for structured learning.	PRJ-014	Education, Problem Solving	★★★★★	Gemini API, Mathematics



# PREMIUM

Title	Project Description	Project Use-Case Code		Innovation Level	Tags
Computer Vision-Based Food Volume Measurement via Monocular Depth Anything V2 and SAM Segmentation	Food volume is measured through a computer vision-based approach that applies monocular depth estimation with Depth Anything V2 and SAM-based segmentation for precise portion analysis.	PRJ-015	Food Analysis, Nutrition	★★★★★	Depth Anything V2, SAM
Explainable Phishing Detection Using BERT-Based NLP, SHAP Interpretability, and an AI Cybersecurity Chatbot	Phishing threats are detected through an explainable approach that combines BERT-based natural language processing with SHAP interpretability and an AI-powered cybersecurity chatbot for user awareness.	PRJ-016	Cyber Security, Phishing Detection	★★★★★	BERT, SHAP
A Multimodal Ayurvedic Medicinal Plant Recognition Framework Using Vision Transformers and LLM-Based Knowledge Reasoning	Ayurvedic medicinal plant recognition is carried out through a multimodal framework that combines Vision Transformer-based visual analysis with LLM-driven knowledge reasoning for informed identification.	PRJ-017	Ayurveda, Plant Recognition	★★★★	Vision Transformer, LLM
Deep Learning and Quantum NLP Framework for Explainable Semantic Analysis of Medical Lab Reports	Explainable semantic analysis of medical lab reports is performed using a combined deep learning and quantum NLP framework to interpret clinical text with enhanced transparency.	PRJ-018	Medical Analytics, Text Analysis	★★★★★	Quantum NLP, Explainable AI
Explainable AI Framework for Multimodal Stroke Detection Using Deep CNNs, YOLO, and Clinical Risk Modeling	Stroke detection is addressed through an explainable AI framework that integrates deep CNN feature learning, YOLO-based visual analysis, and clinical risk modeling for multimodal assessment.	PRJ-019	Stroke Detection, Healthcare	★★★★	Explainable AI, YOLO
Reinforcement Learning-Driven Software Defect Classification Using PPO and Static Code Metrics	Software defect classification is driven by reinforcement learning through a PPO-based approach that leverages static code metrics to learn defect patterns and improve classification decisions.	PRJ-020	Software Quality, Defect Analysis	★★★★★	Reinforcement Learning, PPO
Quantum Neural Network-Assisted Deep Learning Approach for Central Serous Retinopathy Detection Using OCT and Fundus Images	Central serous retinopathy detection is supported by a quantum neural network-assisted deep learning approach that analyzes OCT and fundus images to enhance ophthalmic diagnostic accuracy.	PRJ-021	Ophthalmology, Medical Imaging	★★★★★	Quantum Neural Network, Deep Learning



# STANDARD

TITLE	PROJECT DESCRIPTION	PROJECT CODE	USE-CASE	INNOVATION LEVEL	TAGS
Hybrid CNN-LSTM-Driven Network Intrusion Detection for Real-Time Multi-Class Cyber Attack Analysis	This project presents a hybrid CNN-LSTM-driven framework for real-time network intrusion detection, enabling multi-class analysis of cyber attacks through deep learning-based traffic pattern modeling.	PRJ-022	Cyber Security, Network Security	★★★★★	CNN-LSTM, Intrusion
Deep Learning-Based Ayurvedic Herb Identification Using CNNs and EfficientNet with Generative AI Assistance	This project focuses on identifying Ayurvedic herbs using deep learning approaches based on CNN and EfficientNet architectures, with generative AI assistance to support image-based identification and analysis.	PRJ-023	Herbal Identification, Healthcare	★★★★★	Deep Learning, Efficient Net
Low-Light Surveillance Object Detection Using YOLOv11 and Distance-Based Alert Intelligence	This project focuses on detecting objects in low-light surveillance environments using YOLOv11, combined with distance-based alert intelligence to enhance situational awareness and timely alerts.	PRJ-024	Surveillance, Security	★★★★★	YOLOv11, Detection
Hybrid CNN-GRU Deep Learning Framework for Comprehensive Cardiac Arrhythmia Detection and Classification from ECG Heartbeat Signals	This project introduces a hybrid CNN-GRU deep learning framework for detecting and classifying cardiac arrhythmia using ECG heartbeat signals through automated signal-based analysis.	PRJ-025	Cardiac Health, Healthcare	★★★★★	CNN-GRU, ECG
AI-Driven Multi-Disease Risk Assessment for Diabetes, Heart Disease, Stroke, and Asthma Using XGBoost-Based Models with Nearby Hospital	This project focuses on AI-driven multi-disease risk assessment for diabetes, heart disease, stroke, and asthma using XGBoost-based models, with integrated nearby hospital support for informed decision-making.	PRJ-026	Disease Prediction, Healthcare	★★★★★	XGBoost, RiskAssessment
Vision Transformer-Based Framework for Robust Detection and Classification of AI-Generated Images and Videos	A Vision Transformer-based approach is employed to detect and classify AI-generated images and videos by learning robust visual representations for reliable content analysis.	PRJ-027	Deepfake Detection, Media Forensics	★★★★	Vision Transformer, Classification
MindEcho: An AI-Driven Multimodal Voice, Text, and Emotion Analysis Framework for Early Mental Health Disorder Detection	MindEcho introduces an AI-driven multimodal framework that analyzes voice, text, and emotional cues to enable early detection of mental health disorders through integrated signal interpretation.	PRJ-028	Mental Health, Healthcare	★★★★★	Multimodal AI, Emotion Analysis



# STANDARD

Title	Project Description	Project Code	Use-Case	Innovation Level	Tags
Comparative Analysis of YOLOv8 and Deep Learning Techniques for Weapon Detection and Behavioral Threat Recognition	A comparative study is conducted to evaluate YOLOv8 alongside other deep learning techniques for weapon detection and behavioral threat recognition through visual pattern analysis.	PRJ-029	Threat Detection, Security	★★★★★	YOLOv8, Deep Learning
Intelligent Disease-Aware Patient Nutrition and Meal Recommendation System with Personalized Dietary Planning Using Google Gemini	An intelligent system is designed to provide disease-aware patient nutrition and personalized meal recommendations by leveraging AI-driven dietary planning supported through Google Gemini.	PRJ-030	Nutrition Planning, Healthcare	★★★★★	Gemini AI, Recommendation
Explainable AI-Driven Anti-Money Laundering and Transaction Risk Management Framework Using Machine Learning and Synthetic Banking Data	An explainable AI-driven framework is developed for anti-money laundering and transaction risk management using machine learning models trained on synthetic banking data to enhance transparency and analysis.	PRJ-031	Financial Security, Risk Management	★★★★★	Explainable AI, AML
A Multimodal Artificial Intelligence Framework for Automated Voice-Driven HR Interview Screening Using Semantic Reasoning, Emotion Analysis, and Job-Fit Evaluation	A multimodal artificial intelligence framework is implemented to automate voice-driven HR interview screening by integrating semantic reasoning, emotion analysis, and job-fit evaluation for candidate assessment.	PRJ-032	HR Screening, Talent Management	★★★★★	Multimodal AI, Emotion Analysis
An Explainable Deep Learning Framework for Image and Video Deepfake Detection Using CNN-BiLSTM-Vision Transformers	An explainable deep learning framework integrates CNN, BiLSTM, and Vision Transformer models to detect deepfake content in images and videos through interpretable feature learning and sequence analysis.	PRJ-033	Deepfake Detection, Media Security	★★★★★	Explainable AI, Vision Transformer
An Intelligent Machine Learning Framework for Crop Yield and Optimal Harvest Prediction in Indian Agriculture	An intelligent machine learning framework is applied to predict crop yield and determine optimal harvest timing within the context of Indian agriculture using data-driven modeling.	PRJ-034	Agriculture, Yield Prediction	★★★★★	Machine Learning, Forecasting
An Adaptive Deep Learning Framework for Emotion-Aware Music Recommendation Using Facial Gesture Analysis	An adaptive deep learning framework is employed to recommend music by analyzing facial gestures and emotional cues, enabling emotion-aware personalization through visual feature learning.	PRJ-035	Music Recommendation, Emotion Analysis	★★★★★	Deep Learning, Personalization



# STANDARD

TITLE	PROJECT DESCRIPTION	PROJECT CODE	USE-CASE	INNOVATION LEVEL	TAGS
An AI-Driven Sign Language Translation System Using MediaPipe, Machine Learning, and 3D Avatar Visualization	Sign language translation is enabled through an AI-driven system that combines MediaPipe-based gesture tracking, machine learning inference, and 3D avatar visualization for expressive communication.	PRJ-036	Sign Translation, Accessibility	★★★★★	MediaPipe, Machine Learning
A Transformer-Based Web Platform for Text Emotion Classification and Sentiment Analytics	Text emotion classification and sentiment analytics are performed through a transformer-based web platform that analyzes linguistic patterns to derive emotional and sentiment insights.	PRJ-037	Sentiment Analysis, Text Analytics	★★★★★	Transformers, Emotion Detection
An AI-Driven Face Recognition-Based Smart Attendance Management System Using YOLO and Computer Vision	Face recognition-based attendance management is automated using AI-driven computer vision with YOLO to accurately identify individuals and manage attendance records in real time.	PRJ-038	Attendance Management, Smart Systems	★★★★★	Face Recognition, YOLO
An AI-Powered Deep Learning Framework for Automated Bone Fracture Detection and Localization Using X-Ray Images	Automated bone fracture detection and localization are achieved through an AI-powered deep learning framework that analyzes X-ray images to identify fracture regions with precision.	PRJ-039	Medical Imaging, Healthcare	★★★★★	Deep Learning, X-Ray
A Real-Time Emotion-Aware Adaptive E-Learning Platform Using Facial Recognition and Intelligent Content Recommendation	Emotion-aware adaptation in e-learning is enabled by real-time facial recognition combined with intelligent content recommendation to personalize learning experiences dynamically.	PRJ-040	E-Learning, Emotion Analysis	★★★★★	Facial Recognition, Recommendation
A Multimodal Machine Learning Framework for Mental Illness Detection Using Wearable Physiological Signal Analysis	Mental illness detection is supported through a multimodal machine learning framework that analyzes physiological signals captured from wearable devices for data-driven mental health assessment.	PRJ-041	Mental Health, Wearables	★★★★	Multimodal ML, Physiological Signals
Transformer-Assisted U-Net Architecture for Accurate Brain Tumor Segmentation in Low-Resolution MRI Images	Accurate brain tumor segmentation in low-resolution MRI images is achieved using a Transformer-assisted U-Net architecture that enhances spatial feature representation and delineation.	PRJ-042	Medical Imaging, Neuro Health	★★★★★	U-Net, Transformers



# STANDARD

Title	Project Description	Project Code	Use-Case	Innovation Level	Tags
Real-Time Depression and Anxiety Detection Using Multimodal Fusion of Speech, Text, and Facial Expressions	Depression and anxiety are identified in real time by fusing speech, text, and facial expression cues through multimodal analysis to support timely mental health assessment.	PRJ-043	Mental Health, Emotion Analysis	★★★★★	Multimodal Fusion, Real-Time
Design and Implementation of an Intelligent Web Content Extraction and Structuring System Using Gemini API	Web content extraction and structuring are streamlined through an intelligent system that leverages the Gemini API to organize unstructured web data into meaningful formats.	PRJ-044	Web Mining, Content Analysis	★★★★★	Gemini API, Data Structuring
Design and Development of a Voice-Enabled Intelligent E-Learning Platform for Visually Impaired Learners	Voice-enabled interaction forms the core of an intelligent e-learning platform designed to support visually impaired learners through accessible content delivery and guided learning workflows.	PRJ-045	Assistive Learning, Accessibility	★★★★★	Voice Interface, E-Learning
AI-Driven Mental Health Risk Assessment Based on Social Media Usage and Behavioral Indicators	Mental health risk patterns are assessed using AI-driven analysis of social media usage and behavioral indicators to identify potential psychological concerns.	PRJ-046	Mental Health, Risk Assessment	★★★★★	Behavior Analysis, AI
An Intelligent CNN-Based Deep Learning Framework for Plant Disease Severity Assessment and Treatment Guidance	Plant disease severity assessment and treatment guidance are supported through an intelligent CNN-based deep learning framework that analyzes visual symptoms to inform condition-specific responses.	PRJ-047	Plant Health, Agriculture	★★★★★	CNN, Deep Learning
An Integrated Real-Time Artificial Intelligence Framework for Multi-Threat Video Surveillance and Safety Monitoring	Multi-threat video surveillance and safety monitoring are handled in real time through an integrated artificial intelligence framework that analyzes visual streams to detect and manage safety-related events.	PRJ-048	Video Surveillance, Public Safety	★★★★★	Artificial Intelligence, Monitoring
Machine Learning-Driven Last-Mile Route Optimization and Delivery Time Prediction with Interactive Map Visualisation	Last-mile delivery efficiency is enhanced through machine learning-driven route optimization and delivery time prediction, supported by interactive map visualization for improved logistical planning.	PRJ-049	Route Optimization, Logistics	★★★★★	Machine Learning, Map Visualization



# STANDARD

TITLE	PROJECT DESCRIPTION	PROJECT CODE	USE-CASE	INNOVATION LEVEL	TAGS
Ensemble Machine Learning-Based Mental Health Risk Assessment with Physiological Signals and Sentiment Analysis	Mental health risk levels are evaluated using an ensemble machine learning approach that combines physiological signal patterns with sentiment analysis for comprehensive assessment.	PRJ-050	Mental Health, Risk Assessment	★★★★★	Ensemble Learning, Sentiment Analysis
Intelligent Personal Finance and Risk Management Framework with Sentiment-Aware Analytics and AutoReg Stock Prediction	Personal finance and risk management are enhanced through an intelligent framework that integrates sentiment-aware analytics with AutoReg-based stock prediction to support informed financial decision-making.	PRJ-051	Personal Finance, Risk Management	★★★★★	Sentiment Analytics, AutoReg
AI-Based Cyberbullying Detection in Social Media Text Using Natural Language Processing Techniques	Cyberbullying in social media text is identified using AI-based natural language processing techniques to analyze linguistic patterns and harmful content indicators.	PRJ-052	Cyber Safety, Social Media	★★★★★	NLP, Cyberbullying
Computer Vision Framework for Early Mastitis Detection in Dairy Cows Using YOLO11	Early mastitis detection in dairy cows is enabled through a computer vision framework that applies YOLO11 to analyze visual indicators for timely livestock health monitoring.	PRJ-053	Animal Health, Dairy Farming	★★★★★	Computer Vision, YOLO11
Deep Learning Framework for Multi-Year Groundwater Level and Water Quality Prediction Using Temporal Fusion Transformers	Multi-year groundwater level and water quality trends are forecast using a deep learning framework built on Temporal Fusion Transformers to model long-term temporal dependencies in hydrological data.	PRJ-054	Water Resources, Environmental Monitoring	★★★★★	Temporal Fusion Transformer, Deep Learning
Interpretable Multimodal CrossFormer Framework for Predicting Hormonal Imbalance and Autonomic Nervous System Risk	Hormonal imbalance and autonomic nervous system risk are predicted using an interpretable multimodal CrossFormer framework that integrates heterogeneous signals for transparent risk estimation.	PRJ-055	Health Assessment, Risk Prediction	★★★★	CrossFormer, Interpretability
An AI-Powered Academic and Career Recommendation Framework with Skill Gap Analysis and Learning Roadmaps	Academic and career recommendations are generated using an AI-powered framework that performs skill gap analysis and constructs personalized learning roadmaps for guided development.	PRJ-056	Career Guidance, Education	★★★★★	Recommendation System, Skill Analysis



# STANDARD

TITLE	PROJECT DESCRIPTION	PROJECT CODE	USE-CASE	INNOVATION LEVEL	TAGS
YOLOv9 and DeepSORT Enabled Low-Light Traffic Perception for Real-Time Heavy Vehicle Risk Assessment	Low-light traffic perception for heavy vehicles is achieved in real time by combining YOLOv9 detection with DeepSORT tracking to assess and manage roadway risk conditions.	PRJ-57	Traffic Safety, Risk Assessment	★★★★★	YOLOv9, DeepSORT
Design and Implementation of a Multimodal AI System for Comprehensive Disease Prediction and Medical Reporting	Comprehensive disease prediction and medical reporting are supported by a multimodal AI system that integrates diverse data modalities to generate unified clinical insights.	PRJ-58	Disease Prediction, Medical Reporting	★★★★★	Multimodal AI, Clinical Analytics