	Project Id	Titles	Domain
1.	TCMAPY1295	**A Hybrid Network Analysis and Machine Learning Model for Enhanced Financial Distress Prediction** This project aims to enhance financial distress prediction by integrating network analysis and advanced machine learning. Using a Kaggle dataset, ensemble methods like voting classifiers and Random Forest will be employed to classify companies accurately. The goal is to provide a reliable tool for timely interventions and strategic planning in financial risk management.	AI
2.	TCMAPY1296	**A Semi-Supervised Learning Approach to Quality-Based Web Service Classification** This project aims to create a semi-supervised learning framework for classifying web services based on quality. It utilizes both labeled and unlabeled data: labeled data guides classification, while unlabeled data improves generalization across diverse data distributions. The goal is to automate and enhance the evaluation of web service quality attributes effectively.	AI
3.	TCMAPY1235	**A Novel Web Framework for Cervical Cancer Detection System A Machine Learning Breakthrough** This research introduces a novel web framework for cervical cancer detection using advanced machine learning techniques. It integrates AdaBoost, XGBoost, stacking classifier, and logistic regression models to improve diagnostic accuracy. The objective is to enhance early detection and intervention processes, aiming to improve patient outcomes in cervical cancer management.	AI

	Project Id	Titles	Domain
4.		**A Predictive Discrete Event Simulation for Predicting Operation Times in Container Terminal** This study aims to develop and evaluate a predictive discrete event simulation model for forecasting operation times in container terminals. Using various machine learning algorithms (Linear Regression, Decision Tree, Random Forest, SVM, XGBoost, CatBoost, ANN), it aims to enhance prediction accuracy for delivery dates, optimizing logistics and supply chain management efficiency.	AI
5.	TCMAPY1271	**Active Machine Learning For Heterogeneity Activity Recognition Through Smartwatch Sensors** This project aims to create an efficient activity recognition system using smartwatch sensors. It leverages active machine learning to classify activities like walking, running, biking, and standing based on accelerometer and gyroscope data. By reducing labeled data needs through active learning, it aims to lower labeling costs while continuously refining model performance.	AI
6.	TCMAPY1228	**Advancing Bankruptcy Forecasting With Hybrid Machine Learning Techniques Insights From An Unbalanced Polish Dataset** This project aims to enhance bankruptcy prediction accuracy using advanced machine learning on an unbalanced Polish dataset. By employing ensemble learning, deep learning, and feature engineering, it seeks to develop a robust model for identifying potential bankruptcies with high precision and recall, benefiting financial institutions in risk mitigation and decision-making.	AI

	Project Id	Titles	Domain
7.	TCMAPY1224	**An Ensemble Deep Learning Model for Vehicular Engine Health Prediction** This project aims to develop an ensemble deep learning model combining Random Forest and KNN algorithms for predictive maintenance of vehicular engines. By leveraging Real-time sensor data and historical records, it seeks to enhance accuracy in identifying early signs of engine degradation, thus improving reliability and optimizing operational efficiency in automotive engineering.	**AI**
8.	TCMAPY1227	**An Advanced Approach For Detecting Behavior-Based Intranet Attacks By Machine Learning** The project aims to develop a sophisticated system using machine learning to identify and mitigate intranet attacks. By analyzing behavioral patterns and network data, it seeks to detect unauthorized access, data exfiltration, and malware infections. The goal is to enhance intranet security through real-time detection and response capabilities, safeguarding critical network assets effectively.	**AI**

	Project Id	Titles	Domain
9.	TCMAPY1238	**Classifying Tor Traffic Encrypted Payload Using Machine Learning** This study introduces a robust ML framework to classify encrypted Tor traffic payloads for cybersecurity enhancement. Using diverse features like Source Port, Destination Port, and IAT, Decision Tree, Logistic Regression, and XGBoost models are evaluated for accurately predicting traffic nature ('label'). It aims to optimize real-time encrypted traffic analysis for secure network environments.	**AI**
10.		**Comparative Analysis Of Machine Learning Algorithms For 5g Coverage Prediction: Identification Of Dominant Feature Parameters And Prediction Accuracy** This research compares traditional and advanced machine learning algorithms to predict accurate 5G coverage using RF Signal Data with Band Width as the target. Models like Logistic Regression, KNN, Random Forest, SVM, XGBoost, LSTM, and others are evaluated to determine the most effective and efficient model for optimizing 5G networks.	**AI**
11.	TCMAPY1303	**Explainable Data Driven Digital Twins For Predicting Battery States In Electric Vehicles** This project aims to develop an advanced predictive model for electric vehicle battery states using Explainable Data-Driven Digital Twins. It integrates diverse machine learning algorithms (DNN, LSTM, CNN, SVR, SVM, FNN, RBF, RF, XGBoost) to accurately forecast SOC and SOH. Emphasis is placed on enhancing model transparency to optimize EV performance and support sustainable automotive technologies.	**AI**

	Project Id	Titles	Domain
12.		**Gynaecological Disease Diagnosis Expert System GDDES Based On Machine Learning Algorithm And Natural Language Processing** The GDDES project aims to develop a diagnostic tool for gynaecological disorders using ML and NLP. It enhances diagnostic accuracy by comparing traditional (Decision Tree, Random Forest, SVM, Naïve Bayes, KNN) and advanced models (Logistic Regression, Gradient Boosting). NLP enables analysis of unstructured patient data for efficient, automated diagnosis, aiming to improve healthcare outcomes.	AI
13.		**Hybrid Machine Learning Model For Efficient Botnet Attack Detection In Iot Environment** Developing a hybrid ML model for efficient botnet attack detection in IoT environments. Integrates diverse ML techniques to enhance detection accuracy, leveraging IoT-specific data characteristics. Aimed at improving cybersecurity by identifying and mitigating botnet threats effectively in IoT networks.	AI
14.		**Incorporating Meteorological Data and Pesticide Information to Forecast Crop Yields Using Machine Learning** This project aims to enhance crop yield forecasting accuracy by integrating meteorological data and pesticide information using Decision Tree, Random Forest, and XGBoost Regressor. It seeks to improve agricultural decision-making with higher predictive performance metrics, supporting optimized crop management and sustainability practices in response to environmental and economic dynamics.	AI

	Project Id	Titles	Domain
15.		**Intelligent Ultrasound Imaging For Enhancedbreast Cancer Diagnosis: Ensemble Transfer Learning Strategies** This project aims to develop an intelligent ultrasound imaging system for enhanced breast cancer diagnosis. It includes assembling a diverse dataset, applying preprocessing techniques, and using transfer learning with deep learning models. Machine learning methods like MLP and SVM will be fine-tuned to create a reliable system for early and accurate breast cancer detection.	**AI**
16.	TCMAPY1259	**Investigating Evasive Techniques In SMS Spam Filtering A Comparative Analysis Of Machine Learning Models** This study evaluates machine learning models for SMS spam detection using Decision Tree, Random Forest, Roberta, and Distil Roberta algorithms on a Kaggle dataset. It aims to identify the most effective model based on accuracy, precision, and recall, addressing the challenges of detecting and mitigating SMS spam effectively.Bottom of Form	**AI**
17.		**Iot-Based Smart Biofloc Monitoring System For Fish Farming Using Machine Learning.** This study aims to develop an IoT-based smart Biofloc monitoring system for fish farming. Using machine learning algorithms (Random Forest, Decision Tree, SVM, Logistic Regression, XGBoost, Gaussian Naive Bayes) on Aquaponics Fish Pond data, it predicts water quality parameters to enhance aquaculture efficiency and sustainability through effective management of fish health and water conditions.	**AI**

	Project Id	Titles	Domain
18.		**Machine Learning Based Diagnostic Paradigm in Viral and Non Viral Hepatocellular Carcinoma** The project aims to develop a machine learning-based diagnostic tool to accurately classify hepatocellular carcinoma into viral and non-viral types, enhancing diagnostic accuracy and supporting personalized treatment strategies.	AI
19.		**Machine Learning for Real-Time Fuel Consumption Prediction and Driving Profile Classification Based on ECU Data** This project aims to develop and validate machine learning models for real-time fuel consumption prediction and driving profile classification using ECU data, comparing Random Forest, Logistic Regression, and AdaBoost algorithms to optimize fuel efficiency and driving behavior.	AI
20.	TCMAPY1304	**Machine Learning Algorithms for Forecasting and Categorizing Euro-to-Dollar Exchange Rates** This project aims to enhance Euro-to-Dollar exchange rate forecasting by applying machine learning techniques, including neural networks and ensemble methods, to analyze historical data, improve prediction accuracy, and support informed financial decision-making.	AI
21.	TCMAPY1237	**Open-Set Recognition in Unknown DDoS Attacks Detection With Reciprocal Points Learning** This study introduces Reciprocal Points Learning for Open-Set Recognition in DDoS attack detection, using Passive Aggressive, Random Forest, and Decision Tree algorithms to enhance detection accuracy and robustness against evolving threats.	AI
22.	TCMAPY1299	**PDF Malware Detection: Toward Machine Learning Modeling With Explainability Analysis** This project develops a machine learning system to detect malware in PDF files, evaluating algorithms like Random Forest, SVM, AdaBoost, and DNN, aiming for high accuracy and interpretability to enhance cybersecurity.	AI

	Project Id	Titles	Domain
23.		**Predicting Hospital Stay Length Using Explainable Machine Learning** The objective of this study is to develop and evaluate predictive models for hospital stay length using machine learning algorithms, including Logistic Regression, MLP, Random Forest, Gradient Boosting, and XGBoost. Additionally, the study aims to utilize explainability tools to interpret model predictions and identify the key determinants of hospital stay durations.	AI
24.		**Robustness Of Workload Forecasting Models In Cloud Data Centers: A White-Box Adversarial Attack Perspective** The primary objective of this study is to evaluate the robustness of various workload forecasting algorithms—RNN, LSTM, and CNN—against white-box adversarial attacks. By using the Kaggle dataset *"Workload Trace,"* the research aims to quantify the impact of these attacks on forecasting accuracy and model performance. Additionally, the study seeks to identify vulnerabilities in each model and propose strategies for enhancing their resilience to adversarial perturbations, ultimately improving the reliability of workload forecasting in cloud data centers.	AI
25.	TCMAPY1236	**Sensor Fusion And Machine Learning For Seated Movement Detection With Trunk Orthosis** This study aims to enhance seated movement detection using trunk orthoses by comparing Decision Trees, Random Forests, and Stacking Classifiers with KNN, integrating IMU and EMG sensor data for improved accuracy and reliability.	AI
26.		**Transparency and Privacy The Role of Explainable AI and Federated Learning in Financial Fraud Detection** This project advances financial fraud detection by integrating Explainable AI and Federated Learning, enhancing transparency and privacy. It compares traditional algorithms with newer methods to develop a robust, interpretable, and confidential system.	AI

	Project Id	Titles	Domain
27.		**A Dynamic Selection Hybrid Model for Advancing Thyroid Care With BOOST Balancing Method** This study aims to develop a Dynamic Selection Hybrid Model for thyroid disorder diagnosis, integrating Decision Trees, SVM, KNN, Random Forest, AdaBoost, and Gradient Boosting within an Adaptive Ensemble Framework to enhance diagnostic accuracy and adaptability.	**AI**
28.	TCMAPY1292	**A Framework for LLM-Assisted Smart Policing System** This research aims to develop a Smart Policing System framework using GPT-4 and XLNet to enhance predictive accuracy, real-time crime analysis, address ethical concerns, optimize resources, and adapt to modern policing challenges.	**AI**
29.	TCMAPY1235	**A Novel Web Framework for Cervical Cancer Detection System A Machine Learning Breakthrough** This research introduces a web framework for cervical cancer detection using AdaBoost, XGBoost, stacking classifier, and logistic regression. It aims to enhance diagnostic accuracy, streamline early detection, and improve patient outcomes.	**AI**
30.		**Advancing Fake News Detection Hybrid Deep Learning With FastText and Explainable AI** This project aims to develop a fake news detection system integrating XLNet, FastText, and CNNs for accuracy, with LIME for explainability, enhancing performance and transparency to improve misinformation identification and public trust.	**AI**
31.	TCMAPY1230	**An Improved Concatenation of Deep Learning Models for Predicting and Interpreting Ischemic Stroke** The objective is to develop an enhanced ischemic stroke predictive model by integrating deep learning with traditional classifiers, improving accuracy, interpretability, and validating the effectiveness of this unified approach for stroke prediction.	**AI**
32.		**Applying Machine Learning Algorithms for the Classification of Sleep Disorders** The project aims to develop a web-based machine learning system for classifying insomnia and sleep apnea using Stacking and Voting Classifiers, enhancing predictive accuracy and automating diagnosis with the Sleep Health dataset.	**AI**

	Project Id	Titles	Domain
33.		**Comparative Analysis of Machine Learning Algorithms for 5G Coverage Prediction: Identification of Dominant Feature Parameters and Prediction Accuracy** This research aims to compare traditional and advanced machine learning algorithms for predicting 5G coverage using RF Signal Data, evaluating models like Logistic Regression, SVM, CNN, and others to identify the most accurate and efficient solution.	**AI**
34.		**Cotton Yield Prediction A Machine Learning Approach with Field and Synthetic Data** This study aims to enhance cotton yield prediction by implementing a stacking classifier with Decision Trees and AdaBoost, integrating field and synthetic data to improve accuracy, robustness, and informed agricultural decision-making.	**AI**
35.	TCMAPY1308	**Enhancing Medicare Fraud Detection Through Machine Learning Addressing Class Imbalance With SMO** The objective of this project is to improve the efficiency and accuracy of detecting Medicare fraud by leveraging SMOTE-ENN to balance datasets and employing advanced machine learning algorithms for robust fraud identification.	**AI**
36.	TCMAPY1222	**Exploring Deep Learning and Machine Learning Approaches for Brain Hemorrhage Detection** This project aims to develop a diagnostic model using ResNet and MobileNet to classify neuroimages into normal or stroke categories, enhancing accuracy and speed for early detection and improved patient outcomes.	**AI**
37.		**Innovations in Stroke Identification A Machine Learning-Based Diagnostic Model Using Neuroimages** This project aims to develop a diagnostic model using ResNet and MobileNet to classify neuroimages as normal or stroke. The model seeks to enhance diagnostic accuracy, speed, and improve patient outcomes.	**AI**

	Project Id	Titles	Domain
38.	TCMAPY1259	**Investigating Evasive Techniques in SMS Spam Filtering A Comparative Analysis of Machine Learning Models** This study aims to evaluate Decision Tree, Random Forest, Roberta, and Distil Roberta models for SMS spam detection, comparing their accuracy, precision, and recall to improve spam detection and resilience.	**AI**
39.		**Lumbar Disease Classification Using an Involutional Neural Based VGG Nets INVGG** This study aims to enhance lumbar spine disease classification by developing the InVGG model with VGG modifications and comparing it to the Vision Transformer (ViT) using the RSNA 2024 dataset for improved diagnostic accuracy.	**AI**
40.		**Machine Learning-Based Problem Space Reduction in Stochastic Programming Models An Application in Biofuel Supply Chain Network Design** This study aims to enhance problem space reduction in stochastic programming for biofuel supply chains using Time Series Models and Gradient Boosting Machines to improve forecasting, decision-making, and efficiency under uncertainty.	**AI**
41.	TCMAPY1275	**Machine Learning-Based Cellular Traffic Prediction Using Data Reduction Techniques** Develop a robust framework for predicting cellular traffic load using advanced machine learning algorithms and data reduction techniques, enhancing prediction accuracy, reducing computational complexity, and optimizing network management and resource allocation in cellular networks.	**AI**
42.		**ML-Powered Handwriting Analysis for Early Detection of Alzheimers Disease** This project aims to enhance early Alzheimer's Disease detection through	**AI**

	Project Id	Titles	Domain
		handwriting analysis by integrating MLP, Decision Trees, AdaBoost, and Gradient Boosting, with K-Best feature selection to improve diagnostic accuracy and intervention.	
43.	TCMAPY1302	**Multi-Class Adaptive Active Learning for Predicting Student Anxiety** This study aims to enhance student anxiety prediction accuracy using Decision Tree, Stacking Classifier, KNN, Logistic Regression, XGBoost, Naive Bayes, and Random Forest, with Multi-Class Adaptive Active Learning for optimized model efficiency.	**AI**
44.		**Multi-Fruit Classification and Grading Using a Same-Domain Transfer Learning Approach** This study aims to improve fruit classification and grading accuracy by integrating traditional models (SVM, KNN, Decision Trees, Random Forest) with deep learning methods, including EfficientNetV2, ResNet, and VGG, using the FruitNet dataset.	**AI**
45.		**Novel Sentiment Majority Voting Classifier and Transfer Learning-Based Feature Engineering for Sentiment Analysis of Deepfake Tweets** This study aims to enhance sentiment analysis of deepfake-related tweets by integrating Random Forest and BERT with a Sentiment Majority Voting Classifier, using transfer learning and ensemble methods for improved accuracy and reliability.	**AI**
46.	TCMAPY1288	**Novel Transfer Learning Based Deep Features for Diagnosis of Down Syndrome in Children Using Facial Images** This study aims to develop a non-invasive, accurate Down syndrome diagnostic tool using facial images. It integrates VNL-Net with VGG16 and Non-Negative Matrix Factorization, and MobileNet + SVM for efficient, real-time detection.	**AI**

	Project Id	Titles	Domain
47.	TCMAPY1290	**Predicting Energy Demand Using Machine Learning Exploring Temporal and Weather-Related Patterns Variations and Impacts** This project aims to use machine learning to predict energy demand by analyzing temporal and weather patterns, enhancing energy management, resource allocation, and planning, and showcasing the role of advanced techniques in managing fluctuating demand.	**AI**
48.		**Product Helpfulness Detection With Novel Transformer Based BERT Embedding and Class Probability Features** The objective is to integrate LSTM networks with BERT embeddings for product helpfulness detection, improving classification accuracy, providing confidence insights, and showcasing the LSTMBERT model's superiority over traditional methods.	**AI**
49.		**SmartSentry Cyber Threat Intelligence in Industrial IoT** The project aims to develop SmartSentry, a comprehensive CTI framework for IIoT systems using machine learning and deep learning techniques, including RF, DT, SVM, and DNN, with SMOTE for robust anomaly detection.	**AI**
50.	TCMAPY1261	**Toward Improving Breast Cancer Classification Using an Adaptive Voting Ensemble Learning Algorith** This project aims to enhance breast cancer classification by developing an adaptive voting ensemble algorithm that integrates Decision Tree and Random Forest classifiers, dynamically assigning weights for improved accuracy and early detection.	**AI**
51.		**Decentralized Traceability And Direct Marketing Of Agriculture Supply Chains** This project enhances aspect-based sentiment analysis by evaluating DeBERTa, PaLM, and GPT-3.5-Turbo models across review domains, aiming to improve accuracy, address domain specificity challenges, and guide future ABSA research and development.	**Block Chain**

	Project Id	Titles	Domain
52.		**Discontinuous Reception Based Energy-Efficient User Association for 5G Heterogeneous Networks** This project develops an efficient load balancing scheme for 5G HetNets, optimizing DRX parameters, managing network overloads, and redistributing data to enhance power efficiency, alleviate BS overloading, and ensure consistent QoS.	**Block Chain**
53.		**Formal Verification of Justification and Finalization in Beacon Chain** This project enhances Ethereum 2.0 Beacon Chain security by formally verifying state initialization, checkpoint justification, and finalization using the PAT model checker, ensuring correctness and preventing critical errors in the network.	**Block Chain**
54.		**Preventing 51% Attack by Using Consecutive Block Limits in Bitcoin** The objective of this project is to develop and validate a modified Proof of Work (PoW) consensus algorithm that effectively prevents 51% attacks in the Bitcoin network. The project aims to enhance the security and integrity of the blockchain by introducing a "Safe Mode Detection" mechanism that scrutinizes incoming blocks and detects double-spending attempts. Through rigorous simulation and analysis, the project seeks to demonstrate the algorithm's ability to maintain a decentralized network structure while ensuring transaction accuracy and preventing malicious activities. Ultimately, the goal is to provide a scalable and robust solution applicable to various blockchain networks.	**Block Chain**
55.		**Recovering Static and Time-Varying Communities Using Persistent Edges** This project enhances community detection in temporal networks by developing spectral clustering methods incorporating temporal information, distinguishing fresh and persistent edges, and outperforming traditional techniques, validated on synthetic and real-world datasets.	**Block Chain**
56.		**ROBB: Recurrent Proximal Policy Optimization Reinforcement Learning for Optimal Block Formation in Bitcoin Blockchain Network**	**Block Chain**

	Project Id	Titles	Domain
		This project develops a Reinforcement Learning model using Recurrent Proximal Policy Optimization (RPPO) to optimize Bitcoin block formation, adjusting block size dynamically to improve efficiency, scalability, and user experience in blockchain networks.	
57.		**Securing Sensing in Supply Chains: Opportunities, Building Blocks, and Designs** This project develops secure end-to-end sensing for supply chains using trusted sensors, TEEs, and blockchain to ensure data integrity, authenticity, and completeness, enhancing transparency, security, and efficiency in multi-stakeholder environments.	**Block Chain**
58.		**A Lightweight Image Encryption Algorithm Based on Secure Key Generation** This research develops an enhanced AES algorithm with innovative key generation, dynamic substitution boxes, and circular permutation, aiming to improve data security and efficiency, especially for IoT and edge-fog-cloud systems.	**Cloud Computing**
59.	TCMAPY1282	**Cloud-Assisted Privacy-Preserving Spectral Clustering Algorithm Within A Multi-User Setting** This project develops a privacy-preserving spectral clustering approach for cloud environments using CKKS homomorphic encryption, allowing encrypted data uploads and accurate results without direct interaction, ensuring security and efficiency.	**Cloud Computing**
60.	TCMAPY1244	**Comprehensive Review and Analysis of Cryptography Techniques in Cloud Computing** This project evaluates various cryptography methods—DNA, elliptic curve, homomorphic, hybrid, lightweight, and novel—within cloud computing, analyzing their methodologies and applications to recommend enhanced data security solutions for cloud and IoT scenarios.	**Cloud Computing**

	Project Id	Titles	Domain
61.	TCMAPY1311	**Concise and Efficient Multi-Identity Fully Homomorphic Encryption Scheme** Our research develops a Multi-Identity Based Fully Homomorphic Encryption (MIBFHE) system, integrating MKFHE with Identity-Based Encryption (IBE) to enhance efficiency, security, and scalability for encrypted data computations, reducing computational overhead and simplifying key management.	**Cloud Computing**
62.	TCMAPY1252	**Deduct: A Secure Deduplication Of Textual Data In Cloud Environments** The "DEDUCT" project develops a secure cloud data deduplication system using AES encryption to enhance storage efficiency by 90-95%, protect data confidentiality, and define roles for secure file management and audits.	**Cloud Computing**
63.	TCMAPY1242	**Dynamic Searchable Symmetric Encryption With Strong Security And Robustness** This project develops and evaluates SR-DSSE a and SR-DSSE b Dynamic Searchable Symmetric Encryption schemes to enhance keyword search robustness and security in encrypted cloud data, ensuring correctness and confidentiality in healthcare contexts.	**Cloud Computing**
64.	TCMAPY1281	**Expressive Public-Key Encryption With Keyword Search: Generic Construction From KP-ABE and an Efficient Scheme Over Prime-Order Groups** This paper critically assesses the security of expressive public-key encryption with keyword search (PEKS) schemes, revealing a keyword guessing attack vulnerability, and aims to improve resilience in cloud data privacy encryption schemes.	**Cloud Computing**
65.	TCMAAN1155	**Improving Digital Forensic Security: A Secure Storage Model With Authentication and Optimal Key Generation Based Encryption** This paper develops DFA-AOKGE, a secure digital forensic architecture for IaaS, using decentralized storage, multikey homomorphic encryption, and advanced key generation to enhance evidence protection and integrity during investigations.	**Cloud Computing**

	Project Id	Titles	Domain
66.		**PEEV: Parse Encrypt Execute Verify—A Verifiable Fhe Framework** The PEEV framework enhances cloud data confidentiality by enabling secure, remote computation on encrypted data using homomorphic encryption and zero-knowledge proofs, simplifying program writing, verification, and protecting against dishonest providers.	**Cloud Computing**
67.		**Privacy-Preserving and Trusted Keyword Search for Multi-Tenancy Cloud** This study designs and implements a privacy-preserving, verifiable, and accountable keyword searchable encryption (VAKSE) scheme for multi-tenant clouds, ensuring secure keyword searches, data privacy, and efficient parallel processing.	**Cloud Computing**