

CODE	TITLE	DESCRIPTION
VTPAI01	Review of Artificial Intelligence Techniques in Imaging Data Acquisition, Segmentation, and Diagnosis for COVID-19	COVID-19, artificial intelligence, image acquisition, segmentation, diagnosis
VTPAI02	An Artificial Intelligence-Based System to Assess Nutrient Intake for Hospitalised Patients	Artificial Intelligence, nutrient intake assessment, few-shot learning
VTPAI03	Understanding Citizens Emotional Pulse in a Smart City Using Artificial Intelligence	Deep learning, emotions modelling, markov models, NLP, smart city
VTPAI04	Predicting Biological Gender and Intelligence From fMRI via Dynamic Functional Connectivity	fMRI, Prediction of gender, Intelligence Prediction, Tensor Decomposition, resting-state, task, functional connectivity, dynamic, Human Connectome Project, PARAFAC
VTPAI05	Global-Attention-Based Neural Networks for Vision Language Intelligence	Global attention, image captioning, latent contribution
VTPAI06	Federated Data Cleaning: Collaborative and Privacy-Preserving Data Cleaning for Edge Intelligence	Privacy preserving, data cleaning, edge intelligence
VTPAI07	Integrating Blockchain with Artificial Intelligence for Privacy-Preserving Recommender Systems	E-commerce, Data theft, User-centric system, Distributed ledger technology, AI-based data analysis
VTPAI08	Survey of Human-Robot Collaboration in Industrial Settings: Awareness, Intelligence, and Compliance	Awareness, compliance, digital-twin human-robot collaboration (HRC), industrial automation, intelligence, physiological computing, speed and separation monitoring (SSM)
VTPAI10	An Enhanced Ensemble Diagnosis of Cervical Cancer: A Pursuit of Machine Intelligence Towards Sustainable Health	Cervical cancer, machine intelligence, classification algorithms, support vector machine, Naïve Bayes, random forest, decision trees, K-nearest neighbors, ensemble classification

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VTPAI12	Human Interaction with Artificial Intelligence Systems	AI researchers and practitioners have been facing these issues, but more research is needed to find technical and regulatory solutions applicable in the long run
VTPAI13	A Multicenter Study on Carotid Ultrasound Plaque Tissue Characterization and Classification Using Six Deep Artificial Intelligence Models: A Stroke Application	Artificial intelligence (AI), carotid, deep learning (DL), supercomputer, symptomatic, plaque, tissue characterization, ultrasound (US)
VTPAI14	Societal Intelligence for Safer and Smarter Transportation	Connected autonomous vehicles, intelligent transportation systems (ITS), Internet of Vehicles (IoV), societal intelligence (SI)
VTPAI15	Artificial Intelligence Applied to Stock Market Trading: A Review	Computational finance, algo-tradings, artificial intelligence, finance
VTPAI16	Guest Editorial: Artificial Intelligence for Securing Industrial-Based Cyber-Physical Systems	Combining the concepts of artificial intelligence, industrial applications, and CPS has only just begun and this Special Issue as a whole can pave the way for future research avenues in this highly important interdisciplinary area of study
VTPAI17	Artificial Intelligence and Blockchain-Assisted Offloading Approach for Data Availability Maximization in Edge Nodes	Blockchain, data offloading, edge computing, Naïve Bayes' classification, NP hardness problem
VTPAI18	Detecting SARS-CoV-2 From Chest X-Ray Using Artificial Intelligence	Artificial intelligence, COVID-19, coronavirus, SARS-CoV-2, deep learning, chest X-ray, imbalanced data, small data
VTPAI19	Artificial Intelligence and Internet of Things Enabled Disease Diagnosis Model for Smart Healthcare Systems	Internet of Things, convergence, cloud computing, artificial intelligence, smart healthcare, disease diagnosis. Internet of Things (IoT), cloud computing, and Artificial Intelligence (AI) transformed the conventional healthcare system into smart healthcare
VTPAI20	Spatio-Temporal Crime Predictions by Leveraging Artificial Intelligence for Citizens Security in Smart Cities	Citizen security, smart cities, crime prediction, artificial intelligence, safe city. Smart city infrastructure has a significant impact on improving the quality of humans life

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VTPAI22	Guest Editorial Special Issue on Artificial Intelligence in Automation for Healthcare Applications	Healthcare automation is the technology by which a process or procedure is performed with minimal assistance from medical care personnel. AI, sparse Spectro temporal decomposition (SSD) and deep Learning	IEEE 2021 - ARTIFICIAL INTELLIGENCE
VTPAI23	Using Artificial Intelligence to Understand What Causes Sentiment Changes on social media	Emerging Topic Detection, interpreting sentiment variations, opinion reason mining, Sentiment Analysis, Sentiment Reasoning, Sentiment Spikes, Topic Model, Artificial Intelligence, Machine Learning, Filtered-LDA, FB-LDA	
VTPAI24	Exploring the Use of Artificial Intelligence Techniques to Detect the Presence of Coronavirus Covid-19 Through Speech and Voice Analysis	Artificial intelligence techniques, Covid-19 detection, speech analysis, voice analysis	
VTPAI25	Natural Brain-Inspired Intelligence for Screening in Healthcare Applications	Autonomic decision-making system, autonomic computing layer, cognitive dynamic system (CDS), cognitive decision making (CDM), non-Gaussian and non-linear environment, NGNLE, screening, smart systems, defective dataset, e-health, smart home, conflict of opinions	
VTPAI26	COVID-19 Epidemic and Opening of the Schools: Artificial Intelligence-Based Long-Term Adaptive Policy Making to Control the Pandemic Diseases	Artificial intelligence, COVID-19, long-term policy making, non-pharmacological policies, opening of the schools, pandemic, parametric model, uncertainty	
VTPAI27	Knowledge of and Competence in Artificial Intelligence: Perspectives of Vietnamese Digital-Native Students	Artificial intelligence, competence, knowledge, university students	
VTPAI28	Optimization of IoT-Based Artificial Intelligence Assisted Telemedicine Health Analysis System	Internet of things, artificial intelligence, telemedicine, health monitoring, data analysis	
VTPML01	Empirical Analysis for Crime Prediction and Forecasting Using Machine Learning and Deep Learning Techniques	LSTM and ARIMA based crime prediction, analysis and forecast	
VTPML02	A Machine Learning-Based Early Warning System for the Housing and Stock Markets	Early Warning System; Housing Market Bubble; Long Short-Term Memory; Machine Learning; Stock Market Volatility	

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VTPML03	Machine Learning on the COVID-19 Pandemic, Human Mobility and Air Quality: A Review	COVID-19, coronavirus, pandemic, machine learning, public health, human mobility, air quality, review, spatiotemporal analysis
VTPML04	Special issue on unlocking genetic diseases by integrating machine learning techniques and medical data	Ei Compendex, Scopus, DBLP Computer Science, Google Scholar, and CNKI
VTPML05	Machine Learning for Anomaly Detection: A Systematic Review	Anomaly detection, machine learning, security and privacy protection
VTPML06	A Weighted Discriminative Extreme Learning Machine Design for Lung Cancer Detection by an Electronic Nose System	Class imbalance learning, electronic nose, extreme learning machine (ELM), lung cancer, volatile organic compounds (VOCs)
VTPML07	Machine Learning for AI-Enhanced Healthcare and Medical Services: New Development and Promising Solution	In the field of computational biology and bioinformatics, scientists seek various possibilities using computer technologies, especially artificial intelligence (AI) enhanced methods, for healthcare services and medical diagnoses.
VTPML08	Evaluating and Improving Adversarial Robustness of Machine Learning-Based Network Intrusion Detectors	Network anomaly detection, network intrusion detection systems, adversarial machine learning, machine learning security, evasion attack
VTPML09	Machine learning applied in SARS-CoV-2 COVID 19 screening using clinical analysis parameters	Artificial intelligence, Machine learning, Random forest, Multilayer perceptron, Support vector machine, COVID-19 diagnostic aid model
VTPML10	Advances in Machine Learning Algorithms for Hate Speech Detection in social media	Text classification, cyber hate, deep learning, ensemble technique, machine learning, social media networks.
VTPML11	Novel Meta-Features for Automated Machine Learning Model Selection in Anomaly Detection	Anomaly detection, Auto ML, data properties, distance functions, meta-features, meta-learning, transfer learning

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VTPML12	Early-Stage Risk Prediction of Non-Communicable Disease Using Machine Learning in Health CPS	Cyber-physical systems, Internet of Things, machine learning, disease risk prediction, IoT data analysis
VTPML13	Hume to Wuhan: An Epistemological Journey on the Problem of Induction in COVID-19 Machine Learning Models and its Impact Upon Medical Research	Biomedical imaging, machine learning, philosophical considerations, computational systems biology, X-rays
VTPML14	Machine Learning Analysis for Data Incompleteness (MADI):	Health informatics, big data models, data completeness, probability density, Kolomogorov-Smirnov test, support vector machine, stochastic gradient descent, generalized additive model, electronic health records
VTPML15	Forecasting loss of signal in optical networks with machine learning	ML models remain effective for optical networks previously unknown to the model, which makes them usable for commercial applications
VTPML16	An Ensemble Learning-Based Data-Driven Method for Online State-of-Health Estimation of Lithium-Ion Batteries	Lithium-ion battery (LIB), the state-of-health (SOH), duration of the same charging voltage range (DSCVR), ensemble extreme learning machine (ELM).
VTPML17	Machine Learning-Based Prognostics for Central Heating and Cooling Plant Equipment Health Monitoring	Central heating and cooling plant (CHCP), data-driven models, heating ventilation and air conditioning (HVAC), machine learning, predictive modeling, prognostics
VTPML18	Machine Learning Methods to Approximate Rainfall and Wind from Acoustic Underwater Measurements	The ability to measure wind and precipitation by applying machine learning on data from underwater acoustic recorders shows potential to help improve in situ measurements over oceans globally
VTPML19	A Machine Learning Algorithm for Reliability Analysis	Cross-validation, importance reliability measures, isotonic smoothing, logistic regression (LR), quasi-likelihood
VTPML20	Multi-Stage Optimized Machine Learning Framework for Network Intrusion Detection	Network intrusion detection, Machine Learning, Hyper-parameter Optimization, Bayesian Optimization, Particle Swarm Optimization, Genetic Algorithm

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VTPML21	Feedback Control of Bioelectronic Devices Using Machine Learning	Machine learning, Biomedical, Adaptive control.	IEEE 2021 - MACHINE LEARNING
VTPML22	Trust-Based Cloud Machine Learning Model Selection for Industrial IoT and Smart City Services	Trusted Machine Learning Models, Deep Learning, Adversarial Attacks, MLaaS, Automatic Model Selection, Smart City, Industrial IoT (IIoT).	
VTPIP01	Deep Convolutional Neural Network with Adversarial Training for Denoising Digital Breast Tomosynthesis Images	Deep convolutional neural network, digital breast tomosynthesis, generative adversarial network, image denoising, microcalcification	IEEE 2021 - IMAGE PROCESSING
VTPIP03	Multi-Task Sparse Canonical Correlation Analysis with Application to Multi-Modal Brain Imaging Genetics	Brain Imaging Genetics, Sparse Canonical Correlation Analysis, Multi-Task Sparse Canonical Correlation Analysis	
VTPIP04	EDL-COVID: Ensemble Deep Learning for COVID-19 Case Detection from Chest X-Ray Images	Covid-19, chest X-ray images, deep learning, EDL-COVID, ensemble learning	
VTPIP05	A Heuristic Neural Network Structure Relying on Fuzzy Logic for Images Scoring	Fuzzy deep neural networks, transfer learning, fuzzy fully connected layer, medical image scoring	

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VTPML01	A Multi-classifier Framework for Detecting Spam and Fake Spam Messages in Twitter	Twitter Spam, Twitter Ham, Multi classifier, Classification, Naive Bayesian algorithm.
VTPML02	Traffic Prediction for Intelligent Transportation System using Machine Learning	Traffic Environment, Deep Learning, Machine Learning, Genetic Algorithms, Soft Computing, Big Data, Image Processing
VTPML03	Supervised Machine Learning Algorithms for Credit Card Fraud Detection: A Comparison	Credit Card, Credit Card Fraud, Machine Learning, Supervised Learning, Naive Bayes.
VTPML04	Machine Learning based Rainfall Prediction	Multiple Linear Regression, rainfall, prediction, machine learning, accuracy
VTPML05	Crop Yield Prediction Using Deep Reinforcement Learning Model for Sustainable Agrarian Applications	Crop yield prediction, deep recurrent Q-network, deep reinforcement learning, intelligent agrarian application
VTPML06	Performance Analysis of Hoeffding and Logistic Algorithm for Churn Prediction in Telecom Sector	Churn, Cross-Validation, classifier performance evaluator, Hoeffding algorithm, Logistic algorithm.
VTPML07	Machine Learning based Predicting House Prices using Regression Techniques	House price, lasso regression, ridge regression, regression methods
VTPML08	An Accurate Prediction of MPG (Miles Per Gallon) using Linear Regression Model of Machine Learning	MPG, Origin, RMSE, Data Ingestion, Data Preprocessing, EDA, Model Training, Linear Regression.
VTPML09	Predicting Clinical Re-admission using Discharge Summaries (PCRUDS)	Electronic medical/health record (EMR) format, Natural language processing, Covid-19 data

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VTPML10	Identification of COVID-19 spreaders using multiplex networks approach	Complex networks, complex systems, COVID-19, multiplex networks, optimization, social networks	IEEE 2020 - MACHINE LEARNING
VTPML11	Emotional Analysis using Twitter Data during Pandemic Situation: COVID-19	COVID-19; Coronavirus; emotions; Twitter; tweets	
VTPAI01	Detection of Possible Illicit Messages Using Natural Language Processing and Computer Vision on Twitter and Linked Websites	CNN, features detection, image classification, natural language processing, SVM	IEEE 2020 - ARTIFICIAL INTELLIGENCE
VTPAI02	Outlier Detection in Indoor Localization and Internet of Things (IoT) using Machine Learning	Internet of things, localization, outliers, outlier's detection.	
VTPAI03	Evolution of Machine Learning Algorithms on Autonomous Robots	Hardware-software Integration, Autonomous Robotics, Robot Operating System, Object Detection, Machine Learning	
VTPAI04	An overview of Machine Learning Technologies and their use in E-learning	E-learning, Technology Enhanced Learning Environments, Data, Learners' traces, Machine Learning, Deep Learning	
VTPAI05	Data Poison Detection Schemes for Distributed Machine Learning	Distributed machine learning, data poison detection, resource allocation, Cross-learning mechanism	
VTPAI06	The Role of Blockchain to Fight Against COVID-19	COVID-19, SARS-CoV-2, Blockchain, DLT, Smart Contract, Pandemic	
VTPAI07	Artificial Intelligence-based E-commerce Platform based on SaaS and Neural Networks	Artificial intelligence; E-commerce; Ecommerce, Neural networks, E-commerce Platform	

CODE	TITLE	DESCRIPTION		
VTPAI08	Behavioral Biometrics for Continuous Authentication in the Internet of Things Era: An Artificial Intelligence Perspective	Behavioral Biometric, Continuous Authentication, Data Mining, Internet of Things, Artificial Intelligence, Constrained Devices, Body Area Networks, Cyber-Physical Systems	IEEE 2020 - ARTIFICIAL INTELLIGENCE	
VTPAI09	Enhancing College Chat Bot Assistant with the Help of Richer Human Computer Interaction and Speech Recognition	Chat Bot, College bots, Interactive bots, Dialogue based bots, NLP, Text based bots		
VTPAI10	Medbot: Conversational Artificial Intelligence Powered Chatbot for Delivering Tele-Health after COVID-19	Telehealth, chatbot, Natural Language Processing, medbot, Natural Language understanding, conversational technology.		
VTPAI11	Smart Assistant Robot for Smart Home Management	Smart Assistant Robot, Internet of Things, Smart home, Mycroft AI, Speech Recognition, Face Recognition		
VTPAI12	Deep Learning Based Program Generation from Requirements Text: Are We There Yet?	Software Requirements, Code Generation, Deep Learning, Data Set		
VTPAI13	Controlling Mouse Motions Using Eye Tracking Using Computer Vision	Computer vision, human-computer interface, D-lib, MAR, EAR		
VTPAI14	VISION- Wearable Speech Based Feedback System for the Visually Impaired using Computer Vision	Computer vision, object detection, visually impaired, text recognition, camera module, audio jack, Raspberry Pi		
VTPDL01	Deep Learning Approach for Suspicious Activity Detection from Surveillance Video	Suspicious activity, video surveillance, deep learning, Convolutional Neural Network		IEEE 2020 - DEEP LEARNING
VTPDL02	Image-Based Plant Disease Detection: A Comparison of Deep Learning and Classical Machine Learning Algorithms	Machine Learning, crop diseases, Deep Learning		

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VTPDL03	An Individual model for Human Activity Recognition Using Transfer Deep Learning	Transfer learning, deep learning, 1D-convolutional neural network, human activity recognition, classification	IEEE 2020 - DEEP LEARNING
VTPDL04	Convolutional Neural Network based Autism Classification	Convolution Neural Network, Autism Spectrum Disorder (ASD), ResNet-50 architecture, Deep learning.	
VTPDL05	Deep Learning Model for Identifying Snakes by using Snakes' Bite Marks	Venom Snakes, Snake Bites, Deep Learning, CNN Model, Snakes Classification	
VTPDL06	Social Image Sentiment Analysis by Exploiting Multimodal Content and Heterogeneous Relations	Multi-modal sentiment analysis, social image, network information, attention mechanism	
VTPDL07	Person Re-identification by Multi-scale Feature Representation Learning with Random Batch Feature Mask	Person Re-identification, deep learning, attention mechanisms, multi-scale feature learning, random batch feature mask	
VTPDL08	Neural Text Segmentation and Its Application to Sentiment Analysis	Fuzzy Enhancement, image contrast, image process, image collecting	
VTPIP01	Deep Convolutional Neural Network for Double-Identity Fingerprint Detection	Sensor signals processing, biometrics, deep CNN, double-identity fingerprint, fingerprint recognition, patch-based learning	IEEE 2020 - IMAGE PROCESSING
VTPIP02	A New Composite Multimodality Image Fusion Method Based on Shearlet Transform and Retina Inspired Model	Image fusion, MRI, Non-subsampled Shearlet transform, PET, Retina Inspired Model.	
VTPIP03	An Improved Fuzzy Algorithmic Approach Applying on Medical Image to Improve the Contrast	Fuzzy enhancement, image contrast, image process, image collecting	

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VTPIP04	Advanced Traffic Violation Control and Penalty System using IoT and Image Processing Techniques	RFID tag, RFID detector, Image Processing, GSM, Database	IEEE 2020 - IMAGE PROCESSING	
VTPIP05	Computer Based Diagnosis of Malaria in Thin Blood Smears Using Thresholding Based Approach	Image processing, Zach Thresholding, Adaptive Median Filter, Malaria classification, thin blood slide		
VTPIP06	Computer vision-based identification of abnormal tissues in biomedical images	Computer Vision, MRI Images, Textured Features, Brain Tumor, Artificial Neural Networks		
VTPIP07	Optical Footprint Image Recognition Algorithm Based on Metric Learning and SVM	Footprint identification; DTCWT; metric learning, Support Vector Machine		
VTPIP08	Manipulation Detection in Satellite Images Using Deep Belief Networks	Independent Component Analysis, mean square error, DBN		
VTPIP09	Tiny-YOLO object detection supplemented with geometrical data	Object detection, neural network, data fusion, Dataset, model, augmentation		
VTPIP10	Handwritten Telugu Compound Character Prediction using Convolutional Neural Network	Telugu Character Prediction, Deep Learning, Handwritten Letter prediction		
VTPNLP01	Real Time Machine Translation System for English to Indian language	Natural Language Processing (NLP), Neural Machine Translation (NMT), OpenNMT		IEEE 2020 - NATURAL LANGUAGE PROCESSING
VTPNLP02	Natural Language Processing for the Job Portal Enhancement	NLP, job, portal, candidates, CV, Natural Language Tool Kit (NLTK), preprocessing		

CODE	TITLE	DESCRIPTION	IEEE 2020 - NATURAL LANGUAGE PROCESSING
VTPNLP03	Deep Learning Techniques for Part of Speech Tagging by Natural Language Processing	POS Tagset, Deep Learning, LSTM cell, Bi-LSTM, comparison.	
VTPNLP04	Using NLP and Machine Learning to Detect Data Privacy Violations	Privacy Violations, Machine Learning, NLP, Personally Identifiable Information	
VTPNLP05	A Study on Natural Language Processing Classified News	Web crawler, NLP, machine learning, news classification, social networks	