2021 4th International Conference of Computer and Informatics Engineering (IC2IE 2021)

Depok, Indonesia
14 – 15 September 2021

IEEE Catalog Number: CFP21JVF-POD
ISBN: 978-1-6654-4289-3

Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number: CFP21JVF-POD
ISBN (Print-On-Demand): 978-1-6654-4289-3
ISBN (Online): 978-1-6654-4288-6

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENT

IC2IE21-01	1570738538	Evaluation of VGG-16 and VGG-19 Deep Learning Architecture for Classifying Dementia People	1
IC2IE21-02	1570728185	Extraction in Detecting Tuberculosis X-Ray Results Using Histogram of Oriented Gradients	5
IC2IE21-03	1570739655	Prediction Model for Diagnosis of Pulpitis Diseases Using Learning Vector Quantization 3	9
IC2IE21-04	1570728114	Development of Deep Learning-Based Mobile Application for Predicting Diabetes Mellitus	13
IC2IE21-05	1570728035	Diabetic Retinopathy Detection using Deep Convolutional Neural Network with Visualization of Guided Grad-CAM	19
IC2IE21-06	1570739325	Leftovers Food Recognition using Deep Neural Network and Regression Approach for Objective Visual Analysis Estimation	24
IC2IE21-07	1570728074	Multiple Convolutional Neural Networks in EEG Emotion Recognition	30
IC2IE21-08	1570738939	Performance Comparison Of Adaptive Neuro Fuzzy Inference System And Support Vector Machine Algorithm In Balanced And Unbalanced Multiclass Data Classification	36
IC2IE21-09	1570739624	Classification Of Questions Based On Difficulty Levels Using Support Vector Machine and Naïve Bayes Algorithms For Imbalance Class	40
IC2IE21-10	1570739431	Classification of COVID-19 Patients Using Deep Learning Architecture of InceptionV3 and ResNet50	46
IC2IE21-11	1570742598	Determination of Sex and Race in Forensic Anthropology: A Comparison of Artificial Neural Network and Support Vector Machine	51
IC2IE21-12	1570728160	Brain-Computer Interface of Motor Imagery and Emotion Using Multiple Recurrent Neural Networks	56
IC2IE21-13	1570748968	In Silico Prediction of Indonesian Herbs Compounds as Covid-19 Supportive Therapy Using Support Vector Machine	62
IC2IE21-14	1570727754	Identification Post-Stroke of Motor Imagery and Asynchrony of Channel Pairs Using Multiple RNN	68
IC2IE21-15	1570750745	Effect of Various Data Preprocessing in Sequence Embedding-Based Machine Learning for Human-Virus PPI Classification	74
IC2IE21-16	1570739925	Fuzzy Time Series Using Model Chen and Lee to Predict COVID-19 in Aceh Indonesia	79
IC2IE21-17	1570727793	Face Mask Detection Using Convolutional Neural Network	85
IC2IE21-18	1570742987	Implementation of Condition-based and Predictive-based Maintenance using Vibration Analysis	90
IC2IE21-19	1570738999	The Implementation Of Unsupervised Learning Techniques As A Data Sharing Model In The Backpropogation For The Classification Of Student Graduation	96
IC2IE21-20	1570738938	The Comparison of Nearest Neighbor Algorithm as Modeling in Conclusion of Interpretation of Bil Ma'tsur and Bil Ra'yi	101
IC2IE21-21	1570740920	Time Series Analysis of Infected COVID-19 cases in the Zamboanga Peninsula, Philippines using Long Short-Term Memory Neural Networks	106
IC2IE21-22	1570739480	Solution to Traveling Freelance Teacher Problem Using the Simple K-Means Clustering	112

IC2IE21-23	1570728105	Analytics Platform for Morphometric Grow out and Production Condition of Mud Crabs of the Genus Scylla with K-Means	117
IC2IE21-24	1570727736	Similarity Software Requirement Specification (SRS) Elicitation Based on the Requirement Statement Using Text Mining on the MNC Play Inventory Management Application	123
IC2IE21-25	1570743117	Text Normalization for Indonesian Text-to-Speech (TTS) using Rule-Based Approach: A Dataset and Preliminary Study	129
IC2IE21-26	1570742713	Prediction of the Telkom University's Undergraduates Waiting Period for Getting a Job Using the CART Algorithm	135
IC2IE21-27	1570744091	Forecasting Pet Food Item Stock Using ARIMA and LSTM	141
IC2IE21-28	1570749418	Implementation Of The Triple Exponential Smoothing (TES) Method For Forecasting The Number Of Dengue Patients Web-Based	147
IC2IE21-29	1570758404	Real Time-based Skin Cancer Detection System using Convolutional Neural Network and YOLO	152
IC2IE21-30	1570758746	Air Pressure Control on Ventilator using Fuzzy Logic Method	158
IC2IE21-31	1570743723	E-learning User Acceptance on Employee Training using E-learning on Organization in Indonesia	164
IC2IE21-32	1570743509	System Usability Scale and Net Promoter Score on Donation Application of Toddlers Equipment	170
IC2IE21-33	1570744035	VIRKOM as Augmented Reality Application for Visualization of Computer Maintenance Learning Material	175
IC2IE21-34	1570744093	Educational Data Mining: Analyzing Teacher behavior based Student's Performance	181
IC2IE21-35	1570728069	Quality Improvement Recommendations of SMAN 5 Bandar Lampung Website Using Collaboration of ISO/IEC 25010:2011 and Importance Performance Analysis	186
IC2IE21-36	1570732505	Digitalization for Business Model Innovation: Create, Change, and Improve for Values	192
IC2IE21-37	1570739443	The Design Of Information Security Risk Management: A Case Study Human Resources Information System In XYZ University	198
IC2IE21-38	1570740832	Indonesian Firms Information and Communication Technology Usage during Covid-19 Pandemic	204
IC2IE21-39	1570741839	The Architecture for Rice Stock Information System in Indonesia	210
IC2IE21-40	1570743596	Critical Success Factor on E-Learning: Case Study Ruangguru Indonesia	215
IC2IE21-41	1570734789	Self-Attention Mechanism of RoBERTa to Improve QAS for e-health Education	221
IC2IE21-42	1570728158	Exploring the Influence Factor of Social Media adoption to Firm Performance: A Systematic Literature Review	226
IC2IE21-43	1570737899	Impact of Changing Scope and Customer Involvement to Perceived Benefit	232
IC2IE21-44	1570713727	Analysis of Knowledge Management Readiness with an Embedded Method: A Case Study of an After-Sales Service Organisation in PT XYZ	238

IC2IE21-45	1570758980	Ratcliff/ Obershelp Algorithm as An Automatic Assessment on E-Learning	244
IC2IE21-46	1570740858	Online Transportation using Cloud Computing during Covid-19 in Indonesia	249
IC2IE21-47	1570743278	Implementation and Analysis of The Etherchannel Technology Using PAgP and LACP Protocols on Cisco Switch Devices	255
IC2IE21-48	1570739627	Questions Classification Based on Revised Bloom's Taxonomy Cognitive Level Using Naive Bayes and Support Vector Machine	260
IC2IE21-49	1570737158	Distributed Ledger Technology Based Immutable Authentication Credential System (D-IACS)	266
IC2IE21-50	1570733997	Development of Online-base Exam Security Systems using Ensemble Method	272
IC2IE21-51	1570739686	Application of Spatial Data Warehouse for Agriculture: Challenge and Future Trends	277
IC2IE21-52	1570728116	Generating Features of Windows Portable Executable Files for Static Analysis using Portable Executable Reader Module (PEFile)	283
IC2IE21-53	1570754632	Best Ratio Size of Image in Steganography using Portable Document Format with Evaluation RMSE, PSNR, and SSIM	289
IC2IE21-54	1570742604	Optimization of the FP-Growth Algorithm in Data mining Techniques to Get the Electric Power Theft Pattern for the Development of Smart City	295
IC2IE21-55	1570750754	e-Control: Electronic Attendance Control System for Multi-Condition Class Using Microservices Architecture Development Methods	299
IC2IE21-56	1570742623	Analysis of KNN in Classification of Firearms Sounds Using Fast Fourier Transform	305
IC2IE21-57	1570727485	Disturbance Storm Time Index Prediction using Long Short-Term Memory Machine Learning	311
IC2IE21-58	1570748219	Analysis of New Features on the Performance in Classification of Natural Disaster Messages	317
IC2IE21-59	1570743858	Analysis of Software Defined Network (SDN) Using Opendaylight Controller with ANOVA Repeated Measures	323
IC2IE21-60	1570750102	CrowdFunding Application For Waqf Donation	328
IC2IE21-61	1570739399	Voicebot: Virtual Assistant Prototype for Property Sales	334
IC2IE21-62	1570750066	Emotion Intelligent Application for Independent Wellbeing Management using Certainty Factor	338
IC2IE21-63	1570749597	Enhancing Nearest Centroid with Coverage Principle for Classification Problem	344
IC2IE21-64	1570742965	Counting the Number of Moving Vehicles by Its Type Based on Computer Vision	350
IC2IE21-65	1570737586	StrokIndo: An Expert System to Prevent Stroke for Indonesian	355
IC2IE21-66	1570743882	Identification of Feed In Determining The Quality of Cow's Milk Using Forward Chaining	362

IC2IE21-67	1570728001	Performance Maintenance of Machine Learning-based Emergency Patient Mortality Predictive Models	369
IC2IE21-68	1570737911	Application for Early Heart Disease Prediction Based on Data Mining Approach	375
IC2IE21-69	1570743853	Clustering Ornamental Plants Turnover Data Using K-Means Algorithm	379
IC2IE21-70	1570742017	Spatio-Temporal Approach Using CNN-RNN in Hand Gesture Recognition	385
IC2IE21-71	1570742550	Hyperparameter Tuning Using GridsearchCV On The Comparison Of The Activation Function Of The ELM Method To The Classification Of Pneumonia In Toddlers	390
IC2IE21-72	1570742555	Detection Of Corn Leaves Nutrient Deficiency Using Support Vector Machine (SVM)	396
IC2IE21-73	1570728182	Hand Gesture Video Identification using Spatial and Temporal Convolutional Neural Networks	401
IC2IE21-74	1570743738	Medical Image Watermarking using Spread Spectrum and Compressive Sensing Techniques	406
IC2IE21-75	1570761247	Deep Face Recognition for Imperfect Human Face Images on Social Media using the CNN Method	412
IC2IE21-76	1570739539	Raspberry Pi-based Decubitus Reducing Mattress with Air Pressure Monitoring System and Air Leaks Detector	418
IC2IE21-77	1570742303	Message Digest 5 (MD-5) Decryption Application Using Python-Based Dictionary Attack Technique	424
IC2IE21-78	1570755089	Comparison Analysis of Acorn Algorithm and Snow Algorithm on Smart Card using Java Card	429
IC2IE21-79	1570742700	Vulnerability Analysis of Wireless LAN Networks Using ISSAF WLAN Security Assessment Methodology: A Case Study of Restaurant in East Jakarta	435
IC2IE21-80	1570740076	Wireless Network use RSSI (Received Signal Strength Indication) Mechanism for Smart Office	441
IC2IE21-81	1570740451	5G Network Performance: A Study Using Stationary and Mobility Tests on Sukhumvit Line - BTS Skytrain in Bangkok	447
IC2IE21-82	1570754812	IPv6 vs IPv4 Performance Simulation and Analysis Using Dynamic Routing OSPF	451
IC2IE21-83	1570750217	e-Fungi: Using IoT to Monitor and Control The Growth of Fungi Causing Leather Goods Become Weathered	456
IC2IE21-84	1570740443	Deep Residual CNN for Preventing Botnet Attacks on The Internet of Things	462
IC2IE21-85	1570749305	Analysis Reliability Of Distribution Network Interconnected With Distributed Generation	467
IC2IE21-86	1570754494	Optimization Of Overcurrent Relay Coordination Using Artificial Bee Colony	473
IC2IE21-87	1570754491	Coordination Optimization Of Directive Current Release Due To Added Electricity In The Distribution Network Using ANFIS	479
IC2IE21-88	1570727997	Smart School Framework with Single ID based on RFID Through NFC using FCM Notification	485

IC2IE21-89	1570740495	Quantum Resistance Deep Learning based Drone Surveillance System	491
IC2IE21-90	1570742948	Indoor CO2 Level-Based Occupancy Estimation at Low-Scale Occupant using Statistical Learning Method	496
IC2IE21-91	1570739316	Optimization of Stand Alone Solar Home System with Battery	500