

# **2022 5th International Conference of Computer and Informatics Engineering (IC2IE 2022)**

**Jakarta, Indonesia  
13-14 September 2022**



**IEEE Catalog Number: CFP22JVF-POD  
ISBN: 978-1-6654-5339-4**

**Copyright © 2022 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:	CFP22JVF-POD
ISBN (Print-On-Demand):	978-1-6654-5339-4
ISBN (Online):	978-1-6654-5338-7

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## TABLE OF CONTENT

1	IC2IE22-01	113	Development of Mobile Asset Management Applications with Geolocation and HaversinE ..... 1
2	IC2IE22-02	142	Energy Saving of IoT-based Light Intensity on Smart Streetlight ..... 6
3	IC2IE22-03	183	Cattle Breeding Management using Smart System: a systematic literature review ..... 10
4	IC2IE22-04	219	An Internet of Things (IoT)-based smart automatic medication dispenser with an integrated web application for patient diagnosis ..... 16
5	IC2IE22-05	394	Usage of Convolutional Neural Network for Deepfake Video Detection with Face-Swapping Technique ..... 22
6	IC2IE22-06	831	Analysis Factors Affecting Consumer Preferences in using Qris Payment In-Store. .... 29
7	IC2IE22-07	899	A Secure Authentication at Remote Real-Time Data Access in IWSN-based Healthcare Environment ..... 35
8	IC2IE22-08	1190	Critical Success Factor Analysis ERP Project Implementation Using Analytical Hierarchy Process in Consumer Goods Company ..... 41
9	IC2IE22-09	1263	Analysis Quality of Service Voice Over Internet Protocol using Generic Routing Encapsulation Internet Protocol Security Tunnel and Internet Protocol In Internet Protocol Based on Session Initiation Protocol ..... 47
10	IC2IE22-10	1265	Comparison of Time, Size And Quality Of 3D Object Rendering Using Render Engine Eevee And Cycles In Blender ..... 54
11	IC2IE22-11	1508	Application of Extreme Learning Machine (ELM) Classification in Detecting Phishing Sites ..... 60
12	IC2IE22-12	1528	Designing Case-Based Reasoning (CBR) System to Support Ship Operations using Case-Method Cycle ..... 65
13	IC2IE22-13	1562	The effectiveness of online studying at some point of the COVID-19 pandemic for students in Indonesia ..... 74
14	IC2IE22-14	2065	Using Cohesion-Based and Sentiment-Based Attributes to Classify Spoilers in Movie Reviews ..... 80
15	IC2IE22-15	2114	e-Monev: Tools to Monitor and Manage Projects Carried Out by Partners Using Architectural Microservice Development Methods ..... 85
16	IC2IE22-16	2280	Identification of Lung Cancer in Smoker Person Using Ensemble Methods Based on Gene Expression Data ..... 89

17	IC2IE22-17	2412	Nonlinear Modeling and Robust Backstepping Control of a Quadrotor Unmanned Aerial Vehicle .....	94
18	IC2IE22-18	2682	Development and Evaluation of an Accurate, Efficient, and Scalable Mobile Application for Early Detection of Skin Cancer using Image Processing Algorithms, Transfer Learning, and AutoKeras.....	100
19	IC2IE22-19	2909	Low-cost surveillance System Using Smartphone and Raspberry Pi 4 Based on Real Time Streaming Protocol.....	106
20	IC2IE22-20	2931	Envisioning the Future of Collaboration for Banking and FinTech Industry.....	111
21	IC2IE22-21	3034	The Effect and Impact of The Electre Method For Sensitivity Testing on A Decision Support System Based on A Case Study Of Selecting Outstanding Students.....	118
22	IC2IE22-22	3077	Design and Implementation of IoT-Based Automatic Oxygen Flow Control in Response to the Covid-19 Crisis .....	123
23	IC2IE22-23	3501	Web Based Platform Development for Interactive 3D Visual Exhibition of Painting Artwork .....	129
24	IC2IE22-24	3745	Robot Relay Networks For Area Exploration .....	135
25	IC2IE22-25	4119	Analysis The Effect of Involvement on Brand's Social Media Instagram Account of Uniqlo Indonesia (@UniqloIndonesia) on Consumer Purchase Intention.....	139
26	IC2IE22-26	4665	Applying Software Development Risk Taxonomy in Use Case Points Complexity Factor .....	145
27	IC2IE22-27	4937	Online Craftmans Ordering Application Development using Waterfall method .....	150
28	IC2IE22-28	4969	Early Warning System on Zakat Android Application With Hybrid Fuzzy Time Series Method.....	156
29	IC2IE22-29	5004	The Aquarium Monitoring System Design for Ornamental Fish Farmers Using NodeMCU with Telegram Data Notifications.....	162
30	IC2IE22-30	5126	Electricity Time Series Forecasting by Using Transformer With Case Study in Jakarta Banten .....	167
31	IC2IE22-31	5305	Evaluating Deep Reinforcement Learning Methods to Develop an Intelligent Traffic Controller .....	173
32	IC2IE22-32	5323	A Survey of Cryptographic Algorithms for Lightweight Authentication Schemes in the Internet of Things Environment .....	179
33	IC2IE22-33	5558	Texture Features and Statistical Features for Wood Types Classification System .....	186

34	IC2IE22-34	5851	Applying Features Based on Word Embedding Techniques to 1D CNN for Natural Disaster Messages Classification .....	192
35	IC2IE22-35	6121	Wireless Infrastructure uses DSSS (Direct Sequence Spread Spectrum) Mechanism for Smart Government Concept .....	198
36	IC2IE22-36	6179	Irrigation Prediction Using Machine Learning in Precision Agriculture ..	204
37	IC2IE22-37	6317	Development of Face Mask Detection Using SSDLite Mobilenetv3 Small Based on Raspberry Pi4 .....	209
38	IC2IE22-38	6330	Analysis of Effectiveness of Iptables on Web Server from Slowloris Attack.....	215
39	IC2IE22-39	6333	Developing an Application to Recommend Major Based on Personality Test Using Waterfall Method .....	220
40	IC2IE22-40	6551	Control of Super Capacitor in Solar Power Plant Using Automatic Hybrid Mode.....	225
41	IC2IE22-41	6654	Application of Software Engineering in Student Time Management Using Prototype Model.....	230
42	IC2IE22-42	6665	Non-Invasive IoT Home Medical Check Up Programming to Monitor Blood Sugar, Cholesterol, Uric Acid, and Body Temperature .....	236
43	IC2IE22-43	6709	Evaluation of Encryption and Decryption Performance in Smart Home Design Using the LoRaWAN Protocol .....	241
44	IC2IE22-44	6806	Emo-Health Application Evaluation with USE Questionnaire Method ...	247
45	IC2IE22-45	6834	Toward Sustainable Consumption Initiatives Enabled by Information Technology: A Literature Review .....	253
46	IC2IE22-46	6861	IoT based Battery Storage Temperature Monitoring System.....	258
47	IC2IE22-47	7033	The Development of Facial Expressions Dataset for Teaching Context: Preliminary Research.....	263
48	IC2IE22-48	7047	Identification of Corynespora Rubber Disease using Pre-Trained Convolutional Neural Network .....	270
49	IC2IE22-49	7306	Analysis of Extended Enterprise Implementation Case Study: Software Production House .....	276
50	IC2IE22-50	7666	Development of Animation as a Medium For Public Health Education ...	282
51	IC2IE22-51	7747	QSAR Study on Falcipain Inhibitors as Anti-malaria using Genetic Algorithm-Support Vector Machine.....	287

52	IC2IE22-52	7955	Design An Intruder Detection TDesigning a Thief Detection Prototype using Designing a Thief Detection Prototype using Banana Pi M2+ Based Image Visual Capture Method and Email Notifications.....	293
53	IC2IE22-53	8032	Potential Classification Prediction of Solar and Wind Energy in Indonesia Using Machine Learning with Random Forest Algorithm .....	297
54	IC2IE22-54	8473	Progressive Web Application (PWA) Development for Outfit Management System.....	303
55	IC2IE22-55	8545	Feature Extraction of Tweet data Characteristics to Determine Community Habits.....	309
56	IC2IE22-56	8809	Latent Semantic Indexing (LSI) and Hierarchical Dirichlet Process (HDP) Models on News Data .....	314
57	IC2IE22-57	8821	Realtime Indoor Navigation System for Visually Impaired Person Using Direct-based Navigation .....	320
58	IC2IE22-58	8835	Detection of Brain Tumors from MRI Images using Convolutional Neural Networks.....	325
59	IC2IE22-59	8855	Smart Door Lock Prototype Design At Internet Of Things-Based Airport .....	331
60	IC2IE22-60	9528	A Web-Based Zakat Recipient Determination System Using the Naïve Bayes Algorithm.....	337
61	IC2IE22-61	9554	PhishRescue: A Stacked Ensemble Model to Identify Phishing Website Using Lexical Features .....	342
62	IC2IE22-62	9610	A Systematic Study for Organizing Research Topics in Ontology Data Mining Domain.....	348
63	IC2IE22-63	9890	Research Partner Recommender System For Academia in Higher Education Using Non-linear Approach .....	355
64	IC2IE22-64	9956	Implementation of Genetic Algorithm-Support Vector Machine on Gene Expression Data in Identification of Non-Small Cell Lung Cancer in Nonsmoking Female .....	361