

2023 International Conference on Information Technology Research and Innovation (ICITRI 2023)

**Jakarta, Indonesia
16 August 2023**



**IEEE Catalog Number: CFP23CN2-POD
ISBN: 979-8-3503-2495-2**

**Copyright © 2023 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:	CFP23CN2-POD
ISBN (Print-On-Demand):	979-8-3503-2495-2
ISBN (Online):	979-8-3503-2494-5

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

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Safeguarding Fuel Resources for BTS Generator Sets: An Arduino-Based Monitoring System with Fuel Theft Detection Prototype	1
<i>Tati Erlina, Ratna Aisuwarya, Alwizar</i>	
Analysis of Hadley Chaotic System and Its Application in Voice Encryption	7
<i>W. S. Mada Sanjaya, Akhmad Roziqin, Agung Wijaya Temiesela, M. Fauzi Badru Zaman, Aria Dewa Wibiksana, Dyah Anggraeni</i>	
Deep Learning Method Based for Breast Cancer Classification	13
<i>Irmawati, Ferda Ernawan, Mohammad Fakhreldin, Andi Saryoko</i>	
Stroke Prediction Based on Random Forest with SMOTE.....	17
<i>Rio Mahendra Denta Saputra, Yasrizal Chairul, Dwiza Riana, Alya Shafira Hewiz, Faruq Aziz</i>	
The Effectiveness of Resampling Method for Handling Class Imbalances in Software Defect Prediction	22
<i>Frieyadie, Munaisyah Abdullah, Foni Agus Setiawan</i>	
Smart Home Security System Using Face Recognition Based on IoT- CNN.....	28
<i>M. Aldiki Febriantono, Alvin Zuhair, Khaeruddin</i>	
Evaluation of Emotion Recognition in Facial Image Using Attentive Deep Convolutional Neural Network.....	34
<i>Nur Aini, Hilman Ferdinandus Pardede</i>	
Unsupervised Multi-Stage Segmentation in Image Identification of Gallstone Disease.....	38
<i>Musli Yanto, Yuhandri Yunus, Muhammad Tajuddin</i>	
Comparison of the Performance of CNN Transfer Learning in the Classification of Alzheimer's Disease	43
<i>Purwono Purwono, Alfian Ma'Arif, Iswanto Suwarno, Iis Setiawan Mangkunegara, Pramesti Dewi, Endang Setyawati</i>	
Machine Learning for Cracks Level Classification on Concrete Surfaces Using Histogram Oriented Gradient Features	49
<i>Yessi Jusman, Makrufiah Sakatri, Ahmad Zaki</i>	
Hyperspectral Rice Grain Image Reconstruction Using HR-ResNet Algorithm to Construct Rice Spectral Reflectance Profile	54
<i>Nadya Lailyshofa, Adhi Harmoko Saputro</i>	
Classification of Autism Using Feature Extraction Speed Up Robust Feature (SURF) with Boosting Algorithm	60
<i>Yorris Siagian, Muhathir, Maqhfirah D R</i>	
YOLO Network-Based for Detection of Rice Leaf Disease.....	65
<i>Faruq Aziz, Ferda Ernawan, Mohammad Fakhreldin, Prajanto Wahyu Adi</i>	
Rainfall Estimation Using Convolutional Neural Networks in Various Environmental Backgrounds.....	70
<i>Iqbal, Adhi Harmoko Saputro, Alhadi Bustamam, Ardhasena Sopaheluwakan, Edward Trihadi</i>	

Benchmarking a New Dataset for Coffee Bean Defects Classification Based on SNI 01-2907-2008	75
<i>Made Windu Antara Kesiman, Ismail Sulaiman, I Made Dendi Maysanjaya, Kadek Teguh Dermawan</i>	
Evaluation of the Hastings-Powell Chaotic System and Its Implementation in Digital Image Encryption	81
<i>W. S. Mada Sanjaya, Akhmad Roziqin, Agung Wijaya Temiesela, M. Fauzi Badru Zaman, Aria Dewa Wibiksana, Dyah Anggraeni</i>	
Air Quality Estimation with Embedded AI-Based Prediction Algorithms	87
<i>Armin Mazinani, Luca Davoli, Danilo Pietro Pau, Gianluigi Ferrari</i>	
Analysis of Social Influence, Trust, and Accuracy on Actual Use of Social Media Messaging Application Based on Information Security Model.....	93
<i>Surjandy, Eric Samuel Suwatan, Hanson Sanusi, Bryan Hans Japutra</i>	
Exploration of Human Emotion Recognition in Speech Data Based on Convolutional Neural Network with Mel and Delta Scale Features	99
<i>Dwi Krisnandi, Hilman Ferdinandus Pardede</i>	
Predicting Customer Intentions in Purchasing Property Units Using Deep Learning	103
<i>Bagus Dwi Wicaksono, Muhammad Haris</i>	
Traffic Load Prediction of Power Communication Network Based on Graph Neural Network	109
<i>Hui Huang, Zifei Hao, Liwei Ren, Yan Song, Zhengyang Wu, Zhengong Cai, Bowei Yang</i>	
Stock Price Prediction by Machine Learning Technique: Case Study of Ho Chi Minh Stock Exchange	114
<i>Bui Thanh Khoa, Tran Trong Huynh</i>	
Wind Speed Prediction Using Gaussian Process Regression: A Machine Learning Approach	118
<i>Pitz Gerald G. Lagrazon, Ace C. Lagman, Marmelo V. Abante, John Heland Jasper C. Ortega, Roland A. Calderon, Pedro Jose L. de Castro, Ronaldo C. Maaño, Manuel B. Garcia</i>	
Implementation of LSTM and Adam Optimization as a Cryptocurrency Polygon Price Predictor.....	123
<i>Wahyutama Fitri Hidayat, Muhammad Fahmi Julianto, Yesni Malau, Ahmad Setiadi, Sriyadi</i>	
IndoBERT Based Data Augmentation for Indonesian Text Classification	128
<i>Fuad Muftie, Muhammad Haris</i>	
AUC Maximization for Flood Attack Detection on MQTT with Imbalanced Dataset.....	133
<i>Aji Gautama Putrada, Nur Alamsyah, Syafrial Fachri Pane, Mohamad Nurkamal Fauzan, Doan Perdana</i>	
Developing Smart Trash Management System Using IoT and Machine Learning.....	139
<i>M. Aldiki Febriantono, Andi Pramono, Fairus Iqbal Maulana</i>	
The Integration of the Third Abu al-Wafa's Method for Developing an Autonomous Qibla Finder Mobile Robot.....	145
<i>W. S. Mada Sanjaya, Akhmad Roziqin, Dyah Anggraeni, M. Fauzi Badru Zaman</i>	
Curiosity as a Self-Supervised Method to Improve Exploration in De Novo Drug Design	151
<i>Mohamed-Amine Chadi, Hajar Mousannif, Ahmed Aamouche</i>	
Sentiment Analysis for Curriculum of Independent Learning Based on Naïve Bayes with Laplace Estimator	157
<i>Amelia Ariefah, Widodo, Murien Nugraheni</i>	

Phishing Website Detection with Ensemble Learning Approach Using Artificial Neural Network and AdaBoost	162
<i>Akhas Rahmadeyan, Mustakim, Imam Ahmad, Allan Desi Alexander, Alkautsar Rahman</i>	
Deep Learning-Based Technique for Sign Language Detection.....	167
<i>Zuriani Mustaffa, Nik Ahmad Farihin Mohd Zulkifli, Mohd Herwan Sulaiman, Ferda Ernawan, Yagoub Abbker Adam</i>	
Development of Risk Estimation Program for Storage Tank Failure Due to Uniform Corrosion Based on Deep Neural Network	172
<i>Andreas Federico, Jaka Fajar Fatriansyah, Gabriella Pasya Irianti, Fernanda Hartoyo, Muhammad Anis</i>	
Explainable Prediction of Alternative Medicine Outcome Using Machine Learning and Shapley Values	178
<i>Zulfati Dinul Fatiha, Agus Subekti</i>	

Author Index