

# **2023 International Conference on Electrical and Information Technology (IEIT 2023)**

**Malang, Indonesia  
14-15 September 2023**



**IEEE Catalog Number: CFP23AP6-POD  
ISBN: 979-8-3503-2730-4**

**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:	CFP23AP6-POD
ISBN (Print-On-Demand):	979-8-3503-2730-4
ISBN (Online):	979-8-3503-2729-8

**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 Contents

Intelligent Aerospace Terminologies Recognition Based on Spectrogram Using Machine Learning	1-5
Descriptive Analysis of Web Security Vulnerabilities at Airport Servers Using the Open Web Application Security Project Security Standard	6-11
A Preliminary Study in Exploring Aerospace Health Informatics Core Competencies: Grounded Theory Perspective	12-18
Internet-Based Regular Motion Technique for Quadcopter Optimization	19-23
Enhancing Aerospace Engineering Students' Speaking Ability Through Instagram Vlog	24-30
The Concept of Energy Generation by Solar Panel and Pico Hydro in Household Application	31-35
Solar Powered Greenhouse for Smart Agriculture	36-42
Sampling - Variational Auto Encoder - Ensemble: In the Quest of Explainable Artificial Intelligence	43-50
The Challenges of Developing Technological, Pedagogical, and Content Knowledge in Aviation English Field	51-57
Improvement in the Orientation and Position Estimation of Quadrotor UAV in Dynamic Motion	58-63
Aircraft Jet Engine Learning Media Based on 3D Games	64-70
Advancements in Microcontroller Technology for Wind Speed Measurement in Wind Tunnels	71-75
Simulation of Orientation Navigation Based on IMU Sensor for Quadrotor	76-81
Identifying Hybrid Renewable Energy Power Management and Speed Control on Catamaran Ship	82-87
Navigation Guidance System of AGV Robot Using Image Processing with HSV Filter	88-94
Implementing a Serious Traffic Game to Improve Children's Road Awareness Skills	95-99

Application for Airport Tenant Selection Using Weighted Product-Based Decision Support System	100-106
The Noise Numerical Simulation of Two Dimensional Clark-Y Airfoil on a MALE UAV	107-112
Implementation of K-Nearest Neighbor for Classify Hatespeech on Twitter	113-119
Research Article Matching Methods Using Attention, Hybrid, RNN, and SIF	120-125
Comparison of Robust Stability for Pitch Attitude Boeing 747 Aircraft System Based on LQG and Observer Controller	126-132
Bit Pair Recoding Algorithm for Digital Filter Design in Communication System	133-139
Analysis of Parking Stand Utilities Using System Modeling on Airport Apron	140-144
Charging Time Prediction for E-Bike Station Battery Using Coulomb Counting Approach	145-151
Automatic Transfer Switch for Hybrid Sources on Portable E-Bike Charging Station	152-158
Performance Analysis of Sinusoidal and Space Vector in Inverter Modulation of FOC-Based PMSM Drives for Electric Vehicle Under Constant and Dynamic Speed Conditions	159-164
Solar PV Azimuth Angle Modeling Based on Eight Cardinal Directions Using a Support Vector Machine	165-169
Potential Implementation Radio over Fiber in Smart Vehicle Transportation Systems in the University of Indonesia Area	170-175
Simple and Fast Method for Extracting the Parameters of the One-Diode Photovoltaic Cell Model	176-179
Detection of Pediatric Pneumonia Using Convolutional Neural Networks and Vision Transformer	180-184
Prototype Design of Automatic Switching Speed of Exhaust Fan for Indoor Air Quality Control with Warning Alarm System Based on IoT	185-190

Improvement of Imaginative Immersion in Role Playing Serious Game Using Appreciative Game Activity	191-195
Garbage Classification Using Faster R-CNN	196-201
Comparison of Regression Methods for Estimation of State-Of-Health in Lithium-Ion Batteries	202-206
Blockchain-IoT Enabled Smart Metering System	207-213
Coffee Bean Dryer's Water Content and Temperature Control System Based on Fuzzy Logic	214-222
Design and Implementation in Low Head of a Pico Hydro Power Plant Portable Using an Archimedes Screw Turbine	223-230
Investigating Deep Learning for Classification of Psychiatric Disorders on Brain MRI Data Using GAN-Based Augmentation	231-236
Detection of Landing Gear Damage on Cessna C208B Aircraft Using Case-Based Reasoning	237-242
Robust Audio Forgery Detection Method Based on Capsule Network	243-247
Usability Evaluation of Augmented Reality as Immersive Product Guidelines	248-251
One Time Password Authentication for Machine Activation Monitoring System Based on Wireless Network	252-257
Tobacco Leaf Disease Detection Using ResNet 152V	258-263
Enhancing PV Maximum Power Point Tracking in Residential Charging Stations Through Variable Step Size Modification in P&O Algorithm	264-269
Analysis of Hazard Level and Protection Layer on Induced Draft Fan Using Layer of Protection Analysis (LOPA)	270-274
Watershed Segmentation for Printed Source Classification	275-280
Memory Reference Analysis and Implications for Executing AI Workloads in Mobile Systems	281-285

Duty Cycle Tuning by Using Fuzzy Logic for High-Voltage Generators	286-292
Usability Analysis on Digital Library Information System Using System Usability Scale (SUS)	293-298
Development of Gamification and Live Coding-Based Programming Learning Platform to Foster Learning Motivation of Vocational Students	299-304
Development of Multi-Layer Perceptron Model for Power Transformer Fault Identification Expert System	305-310
Coordinated Control of AC Microgrid for Increase Load Power Using Multi-Inverter	311-317
Forecasting Necessary Levels of Bread Stock for "Direct-To-Shelf" Delivery Using CNN and LSTM Artificial Neural Networks	318-323
Implementation of a Voltage Control Method for a Grid-Connected Inverter in Power Flow Regulation of Solar PV	324-330
Non-Playable Character Movement Controls for Tour Guides and Tourist Activity Simulation Using Artificial Bee Colonies	331-335
A Hardware Implementation of a Phase Shift Control for the Power Flow Control of a Grid-Connected Solar Photovoltaics	336-341
Text Validity Application Forming Functional and Non-Functional Requirements Based on Documentation Analysis on TESA Applications	342-347
SSOBS: Online Buying and Selling Platform Selection System Based on Store Characteristics	348-353
Performance Comparison of Time Scheduling Dual Axis Cartesian-Active Solar Panel and Static Solar Panel	354-360
Forwarding Strategy Analysis in Wireless Network Based Named Data Network (NDN)	361-366
Air Cleaning System Based on the Internet of Things (IoT)	367-371

Designing a 20 kV Additional Feeder for Improving Network Performance	372-377
Improving Memory Retention by Using Source Connection Function in Viat-Map for English Reading Comprehension	378-384
Application of Fuzzy Logic for Roasting Maturity Level Determination Systems and IOT-Based Coffee Grinding Machines	385-389