

#### THE 7<sup>TH</sup> INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY, COMPUTER, AND ELECTRICAL ENGINEERING



## **PROCEEDINGS**

**ELECTRICAL ENGINEERING & INFORMATION TECHNOLOGY RESEARCH TOWARD ECO-FRIENDLY TECHNOLOGY AND HUMANITY** 

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# 2020 7th International Conference on Information Technology, Computer and Electrical Engineering (ICITACEE)

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#### Program

#### A. Circuit & Control (Thursday: September 24, 2020. 13.00 – 17.20)

Chair: Munawar A Riyadi

#### Finger Robotic Control Use M5Stack Board and MQTT Protocol Based

#### Puput Dani Prasetyo Adi

Presenter bio: lam Lecturer at electrical engineering department unmer - malang pp. 1-6

### Liquid Flow Control Design Based on PID-Fuzzy Controller with anti-Windup Compensator

Sofian Yahya, Adnan Rafi Al Tahtawi, Kartono Wijayanto, KW and Bani Faizah

### Quasi Input to State Stability of a Quaternion-Based Attitude Control System with an Augmented Dynamical System

<u>Harry Septanto</u> and Djoko Suprijanto pp. 13-18

### Design of Gain-Scheduled Fuzzy PID Controller for AFR Control System of SI-Based Motorcycle Engine Model

<u>Joshua Harbangan Dharmarakel Panjaitan</u>, <u>Andra Kurniahadi</u>, Aris Triwiyatno and Iwan Setiawan

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### A Hammerstein-Wiener Mean Value Engine Model for Small Automatic Motorcycle Engine

<u>Andra Kurniahadi</u>, <u>Joshua Harbangan Dharmarakel Panjaitan</u>, Aris Triwiyatno and Iwan Setiawan

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#### Design of Camber Angle Control on MacPherson Strut

Zener Sukra Lie and Ian Prayoga

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### EMG Signal Processing from the Myo Armband Sensor for the Prosthetic Hand Control System Input Using RMS and ANFIS

Moh. Arozi, Mochammad Ariyanto, Asa Kristianto, Munadi Munadi and Joga Dharma Setiawan

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### Trajectory Planning with Obstacle Avoidance of 3 DoF Robotic Arm for Test Tube Handling System

<u>Hadha Afrisal</u>, Budi Setiyono, Muhammad Fahmi Yusuf, Rose Mutiara Suin and Olimjon Toirov

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### Design of Air-Fuel Ratio Control Using Gain-Scheduled Fuzzy-PID for Small Scooter Engine

<u>Aris Triwiyatno</u>, Budi Setiyono, <u>Joshua Harbangan Dharmarakel Panjaitan</u>, <u>Andra Kurniahadi</u> and Iwan Setiawan

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Development of Dynamic Model of Autonomous Sailboat for Simulation and Control Joga Dharma Setiawan, Deddy Chrismianto, Mochammad Ariyanto, <u>Candra Wahyu Sportyawan</u>, Robby Dwianto Widyantara and Sabri Alimi pp. 52-57

### B. Information & Communications Technology 1 (Thursday : September 24, 2020. 13.00 - 17.20)

Chair: Aghus Sofwan

#### Development of Mobile Skin Cancer Detection Using Faster R-CNN and MobileNet V2 Model

#### Cahyo Adhi Hartanto and Adi Wibowo

Presenter bio: I received my B.S degree from Diponegoro University, M.S. degrees from Universitas Indonesia, Indonesia, in 2005 and 2011, and Ph.D. degrees from Nagoya University in 2016. My research interests include molecular robotics, DNA computing, signal processing and machine learning. pp. 58-63

#### Automated Item Generation: Model and Development Technique

<u>Septian Eko Prasetyo</u>, Teguh Bharata Adji and Indriana Hidayah

## Functional Suitability Measurement Based on ISO/IEC 25010 for e-Commerce Website Luthfi Atikah, Novrindah Alvi Hasanah and Siti Rochimah pp. 70-75

## A New Model of Poverty Index Prediction Using Triple Exponential Smoothing Method Kristoko Dwi Hartomo, Sri Yulianto Joko Prasetyo and Asni Valentina pp. 76-79

### How Agile Software Development Affect Software Reusability (Study Case: New Student Admissions Portal)

Akbar Noto Ponco Bimantoro, <u>Ivanda Zevi Amalia</u> and Siti Rochimah pp. 80-84

### Size-based Feature Extraction on Blood Cells Calculation Process Using k-Means Clustering

<u>Isya Sulistyo</u>, R Rizal Isnanto and Munawar Riyadi pp. 85-89

#### Sentiment Analysis of Indonesians Response to Influencer in Social Media

#### Syafi Muhammad Tauhid and Yova Ruldeviyani

Presenter bio: My name is Syafi Muhammad T, I am a Master Student in Universitas Indonesia. Currently, I am at my second semester and this is my first paper submission! pp. 90-95

### Hyper-Parameter Tuning Based on Random Search for DenseNet Optimization Ari Nugroho

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Herbal Leaf Pattern Analysis Using Principal Component Analysis (PCA) and Canberra Distance

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<u>Irawan Dwi Wahyono</u>

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Understanding Indonesian Citizen's Continuance Intention to Use Mobile-based Smart City: A Perspective of Modified Expectation Confirmation Model (M-ECM)

<u>Aang Kisnu Darmawan, Dr</u>, Daniel Siahaan, Tony Dwi Susanto, Hoiriyah Hoiriyah, Busro Umam and Bakir Bakir

Presenter bio: I am a lecturer and researcher on Departement of Information Systems at Madura Islamic University. my research concern on fields e-government, smart city, technology accepatance, technology adoption, human computer interaction/user experience pp. 115-120

Design of Multisensor Data Acquisition System (Oxygen, Hydrogen, Temperature, and Pressure) Through Android-Based Website

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Chair: Agung Prasetijo

### Development of Indonesian Language Speech Recognition Algorithm Model in Knowledge Database

Emny Yossy, Syaeful Karim and Dannys Rachmantyo

Presenter bio: I am Emny, a lecturer at Universitas Bina Nusantara, School of Computer Science major in software engineering. pp. 126-129

Applicant Mapping of Predicting Seriousness in Choosing Private University Using Self Organizing Map (SOM) Algorithm

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#### Computational Analysis of Different Design Hip Joint Prostheses Using Finite Element Method

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R Rizal Isnanto, Yudi Windarto and Mutiara Victorina Mangkuratmaja

Presenter bio: Associate Professor Dr. R. Rizal Isnanto Lecturer in Computer Engineering Department, Diponegoro University, Semarang, Indonesia.

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### Analysis of Electrical Energy Consumption for Lighting System in Polyclinic, Radiology, and Patient Rooms of Hospital Building

#### Catur Nofianto, Mochammad Facta, Hermawan Hermawan and Omar Abouzeid

Presenter bio: I work at Kariadi Hospital as an Electrical Planner. I studied at Diponegoro University in Semarang by majoring in Electrical Engineering.

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Presenter bio: An assistant professor in Department of Mechanical Engineering, Diponegoro University, Indonesia. A researcher in Center for Biomechanics, Biomechatronics and Biosignal Processing (CBIOM3S) Diponegoro University. I conduct a research on biomechanics, biomaterial, biomechatronics, tribology and engineering design. pp. 288-293

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7th International Conference on Information Technology, Computer, and Electrical Engineering, ICITACEE 2020 - Proceedings - Pages 207 - 212 - 24 September 2020 - Article number 9239138 - 7th International Conference on Information Technology, Computer, and Electrical Engineering, ICITACEE 2020 - Semarang - 24 September 2020through 25 September 2020 - Code 164776

Source type Conference Proceedings ISBN 978-172817225-5

10.1109/ICITACEE50144.2020.9239138

Analysis of the Effect of Installing Capacitor Bank in the Photovoltaic on - Grid 122 kWp for **Power Factor Correction** 

Larasati, Pangestuningtyas Diah ☑ ; Hermawan ☑ ; Handoko, Susatyo ☑ ; Karnoto ☑

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