

Volume 2 No. 1 March 2024

ELRINA : Journal of Electrical, Marine and Its Application

E-ISSN :

PUBLICATION BOARD OF DIRECTORS

Prof. Norman Mariun (Universitas Putra Malaysia)

Prof. Ken Takagi (The University of Tokyo)

Noorman Rinanto, S.T. M.T., Ph.D. (Politeknik Perkapalan Negeri Surabaya)

EDITOR IN CHIEF

Dr. Yuning Widiarti, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

TIM EDITORIAL

Alief Nur Aisy Maulidhia, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

R. Oktav Yama Hendra, S.ST., M.Tr.T. (Politeknik Negeri Madiun)

Kadek Reda Setiawan Suda, S.Pd., M.Tr.T (Politeknik Nasional)

Anggara Trisna Nugraha, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

Sholahuddin Muhammad Irsyad, S.Tr.T., M.Tr.T. (Politeknik Perkapalan Negeri Surabaya)

Prof. Dani Harmanto (University of Derby)

Dr. Taufiq Asyhari (Cranfield University)

Riko Satrya Fajar Jaelani Putra, S.T. M.T. (Politeknik Perkapalan Negeri Surabaya)

Prof. Norman Mariun (University Putra Malaysia)

Baity Nuris Syifa,S.T.,M.T. (Queensland University)

Abdillah Aziz Muntashir, S.Tr.T.. M.Tr.T. (Politeknik Astra)

Dr. Wahyu Pamungkas (Telkom University Purwokerto)

Anggarjuna Puncak Pujiputra, S.T.. M.T. (Politeknik Perkapalan Negeri Surabaya)

TIM REVIEWER

Prof. Jinglu Hu, (Waseda University)

Rona Riantini (Politeknik Perkapalan Negeri Surabaya)

N. Yuvaraj, (St. Peter's Institute of Higher Education and Research)

Norman Riananto (Politeknik Perkapalan Negeri Surabaya)

M. Syai'in, (Politeknik Perkapalan Negeri Surabaya)

Gabriela W. Favieiro, (Federal University of Rio Grande do Sul)

mam Sutrisno, (Politeknik Perkapalan Negeri Surabaya)

Catur Rachmat Handoko, (Politeknik Perkapalan Negeri Surabaya)

Ryan Yudha, (Politeknik Perkapalan Negeri Surabaya)

Dr. Michael Ardita, (National Institute of Technology Malang)

e-ISSN :

Prof. Mike Yuliana, (Politeknik Electronika Negeri Surabaya)
Abdillah Fashiha Ilman, S.T., M.T., (Politeknik Madura)
Ir. Muhammad Rizani Rusli, S.ST., M.Tr.T., (Politeknik Electronika Negeri Surabaya)
Ass. Prof. Mahmoud Elsisi, (Kaohsiung University of Science and Technology)
Prof. Rudzidatul Akmam Dzyiauddin, (University Teknologi Malaysia)
Dr. Riska Nurtantyo Sarbini, (Universitas Islam Kadiri)

GRAPHIC DESIGNER

PHOTOGRAPER

SECRETARIAT & ADMINISTRATIVE

ELRINA : Journal of Electrical, Marine and Its Application

TABLE OF CONTENTS

Volume 2 No. 1 March 2024

1. **Voltage Control System for a 3-Phase Induction Generator Using PLC**
Anggara Trisna Nugraha, Rachmat Marjuki, Diego Ilham Yoga Agna, Fahmi Ivannuri
2. **Design of LQR Control for Regulating Relative Air Temperature in Beef Cooling Room Systems**
Muhammad Fikri Fathurrohman
3. **Analysis and Design of a Single Phase Full Wave Rectifier Circuit with R-L Load in a Split Supply System: Efficiency Evaluation and Voltage Stabilization Approach** Anisa Fitri Santosa
4. **Design and Implementation of a Single-Phase AC Voltage Controller for Engineering Applications**
John Vernando Purba
5. **Angular Velocity Control of a DC Motor Using the PID Method** Akhmad Zulfi Rois Negara
6. **Development of a Water Quality Control System for Catfish Cultivation Using the Fuzzy Logic Method with IoT-Based Monitoring**
Rania Yasmin Maghriza
7. **Position Control of a DC Motor Using PID and LQR Methods** Achmad Baihaqi
8. **Effect of Thyristor on Speed Regulation of Single-Phase AC Motor with Frequency Parameter**
Anggara Trisna Nugraha, Muhammad Hadi Cahyadi, Diego Ilham Yoga Agna, Moh. Ghafirul Pratama Aprilian Sugianto
9. **Analysis and Implementation of a DC Motor System Based on Arduino-Simulink Matlab Using Linear Quadratic Regulator (LQR) Control**
Fadli Hadi Nugroho
10. **Stability Control System for DC Motors Using Proportional-Integral-Derivative (PID) and Linear Quadratic Regulator (LQR) Methods** Anang Pamungkas