

Volume 2 No. 1, April 2024

MICSE : Maritime in Community Service and Empowerment

E-ISSN :

ADVISORY EDITOR

Prof. Jinglu Hu, (Waseda University)
Prof. Ken Takagi. (The University of Tokyo)
Annas Singgih Setiyoko, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

EDITOR IN CHIEF

Dr. Catur Rakhmad Handoko, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

Co-EDITOR

Evi Nafiatus Sholikhah, S.Tr.T., M.Tr.T. (Politeknik Perkapalan Negeri Surabaya)

MANAGING EDITOR

Mustika Kurnia Mayangsari, S.Kom., M.Tr.Kom. (Politeknik Perkapalan Negeri Surabaya)
Ir. Anggara Trisna Nugraha, S.T., M.T., IPM. (Politeknik Perkapalan Negeri Surabaya)
Eva Inaiyah Agustin, S.T., M.T. (Universitas Airlangga)

ASSOCIATE EDITOR

Prof. Dani Harmanto (Derby University)
Dr. Taufiq Asyhari, (Cranfield University)
Anggarjuna Puncak Pujiputra, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

EDITORIAL BOARD MEMBER

Dr. Mohammad Yanuar Hariyawan, S.T., M.T., Universitas Telkom Surabaya
Feby Agung Pamuji, S.T., M.T., Ph.D., Institut Teknologi Sepuluh Nopember
Nilar Thein, Ph.D. (Yangon Technological University)
Abdillah Aziz Muntashir, S.Tr.T., M.Tr.T. (Politeknik Astra)
Aulia Rahma Annisa, S.ST., M.T. (Politeknik Perkapalan Negeri Surabaya)
Alief Nur Aisyi Maulidhia, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)

TIM REVIEWER PENGABDIAN MASYARAKAT

Mohammad Basuki Rahmat, S.T., M.T. (Politeknik Perkapalan Negeri Surabaya)
Afif Zuhri Arfianto (Politeknik Perkapalan Negeri Surabaya)
Dr. Megan Koontz, Midwives College of Utah
Vivin Setiani (Politeknik Perkapalan Negeri Surabaya)
Dr. Lukman Handoko (Politeknik Perkapalan Negeri Surabaya)
Farizi Rachman (Politeknik Perkapalan Negeri Surabaya)

e-ISSN :

Dr. Eng. I Putu Sindhu Asmara (Politeknik Perkapalan Negeri Surabaya)
Denny Dermawan (Politeknik Perkapalan Negeri Surabaya)
Dr. Eng. Teguh Hady Ariwibowo (Politeknik Elektronika Negeri Surabaya)
Prof. AYKUT I. ÖLCER, (World Maritime University)
Aliridho Barakbah (Politeknik Elektronika Negeri Surabaya)
Dr. Viv Djanat Prasita, (Hangtuah University)
D.Sc, Ph.D. Janusz Kozak, (Gdańsk University of Technology)
Prof. Dr. Ing. Philippe RIGO, (University of Liege)
Prof. Hui-Ming Wee, (Chung Yuan Christian University)
Prof. Philipp Thies, (University of Exeter)

MICSE : Maritime in Community Service and Empowerment

TABLE OF CONTENTS

Volume 2 No. 1, April 2024

1. **Design of Linear Quadratic Regulator (LQR) and Linear Quadratic Tracking (LQT) Methods for DC Motor Control in Community Empowerment Systems by Taking into Account the Impact of Noise and No Noise**
Ari Eka Surya Pramudika, Mukhammad Jamaludin
2. **Application of LQR and LQT Control Methods for Optimization of DC Motor Control Systems Based on MATLAB Simulink in the Energy Efficiency Improvement Program for Home Industry Players**
Moch Mukhtar Syaifudin
3. **Evaluation and Community Service Capacity Development through DC Motor System Optimization in the Appropriate Technology Program**
Angga Yuda Pratama
4. **Development and Evaluation of Ventilator Turbine Prototype as a Source of Renewable Energy for Rural Community Empowerment**
Fahmi Ivannuri, Lilik Subiyanto, Anggara Trisna Nugraha
5. **Comparison of the Use of Linear Quadratic Regulator and Linear Quadratic Tracker Optimal Control Techniques in DC Motor Systems with Noise Addition for the Development of Sustainable Technology Solutions in Community Empowerment**
Gianni Masyitah Dwi Arimbi Puteri Yassin
6. **Application of Sepic Converters as Solar Panel Output Voltage Stabilizers to Increase Access to Renewable Energy in Rural Communities**
Yazid Ihsanudin, Edy Prasetyo Hidayat, Anggara Trisna Nugraha
7. **Evaluation of the Application of LQR and LQT Methods for DC Motor Control in Improving Energy Efficiency in the Maritime Community Electrical System with MATLAB Simulink Application**
Hardanis Firdaus Murfi
8. **Development of Arduino Uno-Based Automatic Control and Monitoring Prototype for Fire Pump System in Local Industrial Community**
Wahyu Eko Prasetyo, Annas Singgih Setiyoko