

Volume 1 No. 2, November 2023

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 1 No. 2, November 2023

1. **Analysis and Application of Single-Phase Controlled Rectifier in Half-Wave AC Motor Systems: Empowering Technical Education**
Arya Adiansyah Saputra
2. **Development of an Automated Train Braking Control System Using Arduino Uno for Enhanced Community Safety**
Perdinan Setia Budi
3. **Analysis of Optimal Control Using the Linear Quadratic Regulator (LQR) Method in DC Motors: Relevance to Community Engagement Programs**
Rahmania Firdiansyah, Rachma Prilian Eviningsih
4. **Optimization of PG45RS775 DC Motor Using LQR and LQT Methods for Community Empowerment Applications**
Raffi Ardika Putra
5. **Evaluating the Impact of Noise on Optimal LQR Control Methods in Enhancing the Performance of DC Motor Systems for Community**
Rama Arya Sobhita
6. **Modeling of DC Motor Control System Using LQR and LQT Methods with Noise Integration: Application for Community**
Shafa Frilla Tama
7. **Application of LQR-PID Control in Eddy Current Brake Dynamometer Systems for Community Skill Development**
Anggara Trisna Nugraha, Jatmiko Adi Wijaya
8. **Comparison of LQR Optimization Methods in Enhancing the Output Response of Maxon EC-i 40 DC Motors for Community**
Nur Zafira Arya Ar Rahmah