

# Jurnal Elektronika dan Telekomunikasi

Volume 25, Number 1, August 2025

e-ISSN: 2527-9955; p-ISSN: 1411-8289

## Table of Content

Comparative Analysis of Charge Recombination Dynamics in Dye-Sensitized Solar Cells with Different Counter Electrodes <b>Evi Nur Azizah, Nunik Nurhayati, Lalu Jihad Al Jazeera, Lia Yuliantini, Mohammad Hatta, Tahta Amrillah, Natalita Maulani Nursam, Yuliar Firdaus</b>	1- 8
Advanced State Estimations for Gravitational Oil/Water Separator Tanks using a Kalman Filter and Multi-Model Hypothesis Testing <b>Zaid Cahya, Parsaulian Siregar, Estiyanti Ekawati, Irfan Bahiuddin, Dito Eka Cahya, Tsani Hendro Nugroho, Heru Taufiqurrohman, and Mohamed Boudaoud</b>	9 - 19
Implementation of Bidirectional Encoder Representations from Transformers in a Content-based Music Recommendation System for Digital Music Platform Users <b>Fadil Abdillah Suyudi, Muhammad Ariful Furqon, Qurrota A'yuni Ar-ruhimat</b>	20 - 27
Performance Comparison of Particle Filter, Optical Flow, and CSRT in Unsupervised Visual Tracking for Mobile Robots <b>Heru Taufiqurrohman, Abdul Muis, Yusuf Nur Wijayanto, Tsani Hendro Nugroho, Zaid Cahya</b>	28 - 37
A Robust SMO-PLL Estimation Algorithm for Enhancing Rotor Position Accuracy and Reducing Chattering Issues in Sensorless FOC of SPMMSM <b>Nektar Cahayasabda, Sekhul Ishak, Danang Suryo Wibowo, Aulia Rahmah Salsabila, Syifa Fajry Az Zahra, Isyatul Hani'ah, Khoirudin Fathoni, Mario Norman Syah</b>	38 - 45
IoT-Based Smart Plug with Real-Time Energy Measurement Optimization and Adaptive Current Cutoff <b>Muntaha Hasanah, Dewi Indriati Hadi Putri, Hafizyan Putra Pratama</b>	46 - 54
Cardiac Imaging with Electrical Impedance Tomography (EIT) using Multilayer Perceptron Network <b>Amelia Putri Ristyawardani, Marlin Ramadhan Baidillah, Yudi Adityawarman, Pratondo Busono, Adityo Rachmadi, Meta Yantidewi, Endah Rahmawati</b>	55 - 63
Implementation of LIDAR for Navigation, Geometric Shape Mapping, and Center of Mass <b>Mikail Vadim Sena, Faisal Wahab, Bagus Made Arthaya</b>	64 - 70