

Journal of Industrial Engineering - Research and Application

Optimizing Vehicle Routing for Perishable Products with Time Window Constraints: A Case Study on Bread Distribution

Rifqi Fauzi, Adi Priansyah, Paskalis Krisna Puspadewa, Syifa Maulvi Zainun Awal, Huu Tho Nguyen, Achmad Pratama Rifai

Employees' Satisfaction and Sentiment Analysis toward BERSATU Application Ayub Prasetyo, Hotniar Siringoringo, Firda Amalia

The Impact of Organizational Readiness on Financial and Project Performance from the Employee's Perspective: A Case Study

Zahwa Fitria Gumilang, Budhi Prihartono

Integration of Kansei Engineering and Nudge Based Design Thinking for Patient Comfort in Healthcare Services

Markus Hartono, Wyna Herdiana, Guguh Sujatmiko, Hairunnas, Christabel Annora Paramita Parung, Brian Kurniawan Jaya

Optimizing Ship Berthing Allocation Strategies at a Dry Bulk Fertilizer Terminal: A Simulation Approach Considering Material Handling Equipment Availability Maulin Masyito Putri, Prita Meilanitasari, Nindya Putri Prasodjo, Dwi Sekar Arumjani

Courier Assignment and Routing Problem Algorithm in Online Food Delivery System with Multi-Customer Delivery Patterns

Prita Meilanitasari, Maulin Masyito Putri, Ilda Auly Sita Agustin, Muhammad Faisal Ibrahim, Dwi Sekar Arumjani

Finding Random Integer Ideal Flow Network Signature Algorithms

Kardi Teknomo, Erna Budhiarti Nababan, Indriati Njoto Bisono, Resmana Lim

Scalable and Affordable IoT-based Inventory Control with Real-Time Monitoring for Small and Medium Enterprises

Vina Sari Yosephine, Marco Batara, Marla Setiawati

Supplier Selection and Order Allocation in A Pharmaceutical Wholesaler

Ryan Hikmah Fadilla, Cucuk Nur Rosyidi, Wakhid Ahmad Jauhari

Published by: Petra Christian University, Surabaya, Indonesia

Jurnal Teknik Industri - Journal of Industrial Engineering					
Vol. 27	No. 1	Hlm. 1 – 150	Surabaya June 2025	ISSN 1411-2485 (Print) ISSN 2087-7439 (Online)	

Accredited by: Director General of Higher Education of Indonesia, Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia No. 105/E/KPT/2022

JURNAL TEKNIK INDUSTRI: Jurnal Keilmuan dan Aplikasi Teknik Industri

(Journal of Industrial Engineering: Research and Application)

Volume 27, Number 1, June 2025

ISSN 1411-2485 (print) / ISSN 2087-7439 (online)

Editor-in-Chief:

Siana Halim

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject area: Mathematical Modeling, Industrial Statistics (Scopus H-Index = 6).

Editors:

Hui Ming Wee

Department of Industrial and Systems Engineering, Chung Yuan Christian University, Chung-Li, Taiwan, Subject Area: Industrial Engineering (Scopus H-Index = 53).

Daniel Indarto Prajogo

Department of Management, Monash University, Melbourne, Australia, Subject Area: Business, Management and Accounting, Decision Sciences (Scopus H-Index = 47).

I Gede Agus Widyadana

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Logistics, Optimization, Industrial Engineering (Scopus H-Index = 13).

Erwie Zahara

Department of Marketing and Logistics Management, St. John's University Taiwan, Taiwan, Taiwan, Subject Area: Logistics Management (Scopus H-Index = 11).

Huynth Trung Luong

Department of Industrial and Systems Engineering, Asian Institute of Technology Thailand, Bangkok, Thailand, Subject Area: Industrial Engineering (Scopus H-Index = 15).

Bernardo Nugroho Yahya

Department of Industrial and Management Engineering, Hankuk University of Foreign Studies, Seoul, South Korea, Subject Area: Industrial Engineering (Scopus H-Index = 15).

Kardi Teknomo

School of Urban and Regional Planning, University of Philippines (Scopus H-Index = 8).

Reviewers:

Danny Prabowo Soetanto

University of South Australia, Australia, Subject Area: Business, Management and Accounting, Engineering, (Scopus H-Index = 18).

Anthony Halog Basco

School of Geography, University of Queensland, Brisbane, Australia, Subject Area: Environmental Science and Engineering (Scopus H-Index = 29).

Indra Gunawan

University of Adelaide, Adelaide, Australia, Subject Area: Reliability Engineering (Scopus H-Index = 21).

Budhi Arta Surya

Victoria University of Wellington, New Zealand, Subject Area: Portfolio Optimization, Econometrics, Statistics (Scopus H-Index = 7).

Markus Hartono

Department of Industrial Engineering, University of Surabaya, Indonesia, Subject Area: Ergonomics (Scopus H-Index = 9).

Takashi Irohara

Faculty of Science and Technology, Sophia University, Tokyo, Japan, Subject Area: Decision Science (Scopus H-Index = 13).

Andre' Liem

Department of Product Design, Norges Teknisk-Naturvitenskapelige Universitet, Trondheim, Norway, Subject Area: Product Design (Scopus H-Index = 9).

Hindrivanto Dwi Purnomo

Department of Information Technology, Satya Wacana Christian University, Salatiga, Indonesia, Subject Area: Optimization (Scopus H-Index = 10).

Eka Budiarto

 $Swiss\ German\ University,\ Bumi\ Serpong\ Damai,\ Tangerang\ Selatan,\ Indonesia,\ Subject\ Area:\ Mathematical\ Modeling\ (Scopus\ H-Index=5).$

Gan Shu San

Department of Mechanical Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Mathematical Modeling (Scopus H-Index =6).

Iwan Halim Sahputra

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Material Technique, Engineering (Scopus H-Index = 9).

Indriati Njoto Bisono

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Experiment Design (Scopus H-index = 3).

Ronald Sukwadi

Department of Industrial Engineering, Universitas Katolik Indonesia Atma Jaya, Jakarta, Indonesia, Subject Area: Decision Science (Scopus H-Index = 10).

Yugowati Praharsi

Politeknik Perkapalan Negeri Surabaya, Indonesia, Subject Area: Optimization (Scopus H-Index = 6).

Liem Feryanto

Applied Material, Sunnyvale, California, USA, Subject Area: Sig-Sigma (Scopus H-Index = 2).

The Jin Ai

Department of Industrial Engineering, Universitas Atma Jaya, Yogyakarta, Indonesia, Subject Area: Particle Swarm Optimization, Vehicle Routing Problem, Inventory Management, Industrial Engineering.

Hendy Rahardjo

Chalmers University of Technology, Chalmers, Sweden, Subject Area: Quality Management, Statistical Engineering, Healtcare, Improvement (Scopus H-Index = 15).

Henry Pribadi

Prasetiya Mulya Business School, Jakarta, Indonesia, Subject Area: Business Management.

Inggrid

Australian National University, Canberra, Australia, Subject Area: Econometrics, Economics.

Jani Rahardjo

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Total Quality Management, Six-Sigma, Decision Science (Scopus H-Index = 2).

I Nyoman Sutapa

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Supply Chain Management, Reverse Engineering (Scopus H-Index = 3).

Tanti Octavia

Department of Industrial Engineering, Petra Christian University, Surabaya, Indonesia, Subject Area: Warehouse Management, Industrial Engineering (Scopus H-Index = 4).

Suprayogi

Department of Industrial Engineering, Bandung Institute of Technology, Indonesia, Subject Area: Transportation and Distribution, Maritime Logistic, Operation Research, Soft Computing and Algorithm Design (Scopus H-Index = 6).

Administrative Assistant: Sarita Budiyani

Editor and Administration Address:

Institute of Research and Community Outreach Petra Christian University

Jl. Siwalankerto 121-131, Surabaya 60236, Indonesia

Phone. 031-2983147

 $Email: jurnal_ti@petra.ac.id; \ Home\ page:\ https://jurnalindustri.petra.ac.id/$

Published by:

Institute of Research and Community Outreach Petra Christian University

Jurnal Teknik Industri is a refereed journal, published twice a year, in June and December. Subscription (Incl. postage) Rp. 150.000/year (for Indonesia), US \$75/year (for abroad), and should be transferred to Univ Kristen Petra Yayasan, acc no: 5820020029 Bank BNI cab. Graha Pangeran Surabaya, INDONESIA.

The Editor accepts the scientific essay about the results of the research, surveys, and review the literature that is closely related to the field of industrial engineering.



JURNAL TEKNIK INDUSTRI: Jurnal Keilmuan dan Aplikasi Teknik Industri

(Journal of Industrial Engineering: Research and Application)

Volume 27, Number 1, June 2025

ISSN 1411-2485 (print) / ISSN 2087-7439 (online)

Contents

Optimizing Vehicle Routing for Perishable Products with Time Window Constraints: A Case Study on Bread Distribution	
Rifqi Fauzi, Adi Priansyah, Paskalis Krisna Puspadewa, Syifa Maulvi Zainun Awal, Huu Tho Nguyen , Achmad Pratama Rifai	1-20
Employees' Satisfaction and Sentiment Analysis toward BERSATU Application Ayub Prasetyo, Hotniar Siringoringo, Firda Amalia	21-32
Ayub Frasetyo, Hotmar Siringoringo, Firua Amana	21-32
The Impact of Organizational Readiness on Financial and Project Performance	
from the Employee's Perspective: A Case Study	
Zahwa Fitria Gumilang, Budhi Prihartono	33-50
Integration of Kansei Engineering and Nudge Based Design Thinking for Patient	
Comfort in Healthcare Services	
Markus Hartono, Wyna Herdiana, Guguh Sujatmiko, Hairunnas, Brian Kurniawan	¥1 50
Jaya, Christabel Annora Paramita Parung	51-76
Optimizing Ship Berthing Allocation Strategies at a Dry Bulk Fertilizer Terminal:	
A Simulation Approach Considering Material Handling Equipment Availability	
Maulin Masyito Putri, Prita Meilanitasari, Nindya Putri Prasodjo, Dwi Sekar Arumjani	77-92
Courier Assignment and Routing Problem Algorithm in Online Food Delivery	
System with Multi-Customer Delivery Patterns	
Prita Meilanitasari, Maulin Masyito Putri, Ilda Auly Sita Agustin, Muhammad Faisal	
Ibrahim, Dwi Sekar Arumjani	93-104
Finding Random Integer Ideal Flow Network Signature	
Kardi Teknomo, Erna Budhiarti Nababan, Indriati Njoto Bisono, Resmana Lim	105-120
Scalable and Affordable IoT-based Inventory Control with Real-Time Monitoring for	
Small and Medium Enterprises	
Vina Sari Yosephine, Marco Batara, Marla Setiawati	121-136
Supplier Selection and Order Allocation in A Pharmaceutical Wholesaler	1 37-150
Ryan Hikmah Fadilla, Cucuk Nur Rosyidi, Wakhid Ahmad Jauhari	