

JURTEKSI

(JURNAL TEKNOLOGI DAN SISTEM INFORMASI)

ISSN 2407-1811 (print)
ISSN 2550-0201 (online)

JURTEKSI (Jurnal Teknologi dan Sistem Informasi) is a scientific journal which is published by STMIK Royal Kisaran. This journal published four a year on march, June, September, and december. This journal contains a collection of research in information technology and computer system.

Editorial in Chief

Muhammad Ardiansyah Sembiring, STMIK Royal Kisaran

Editorial Board

Andy Sapta, Universitas Terbuka
Febby Madonna Yuma, STMIK Royal Kisaran
Muhammad Yasin Simargolang, Universitas Asahan
Raja Tama Andri Agus, STMIK Royal
Tika Christy, Universitas Nahdlatul Ulama Sumatera Barat
Tonni Limong, UNIKA Santo Thomas Medan
Walhidayat, UNILAK Pekanbaru
Zulfan Efendi, STMIK Royal Kisaran

Editorial Office:

Lembaga Penelitian dan Pengabdian Kepada Masyarakat (LPPM)
Sekolah Tinggi Manajemen Informatika dan Komputer (STMIK) Royal
Kisaran – Sumatera Utara, Telp. (0623) 41079 ex. 114
email: lppm_stmik@royal.ac.id



Supervised by:
iji RELAWAN
JURNAL INDONESIA



JURTEKSI	Vol 12	Nomor 1	Halaman 1 - 206	Kisaran December 2025	ISSN 2407-1811 (print)	ISSN 2550-0201 (online)
----------	-----------	------------	--------------------	-----------------------------	------------------------------	-------------------------------

JURTEKSI

(JURNAL TEKNOLOGI DAN SISTEM INFORMASI)

ISSN 2407-1811 (print)
ISSN 2550-0201 (online)

JURTEKSI (Jurnal Teknologi dan Sistem Informasi) is a scientific journal which is published by STMIK Royal Kisaran. This journal published four a year on March, June, September and December. This journal contains a collection of research in information technology and computer system.

Reviewer (Vol 12 No 1) Andi Wahyu Raharjo Emanuel (Scopus ID: 7005767682)
Universitas Atma Jaya, Yogyakarta
Andi Riyanto (Scopus ID: 57200985327)
AMIK BSI Sukabumi, Indonesia
Rezania Agramanisty Azdy (Scopus ID: 57200985346)
Universitas Bina Darma, Indonesia
Khairul Imtihan (Scopus ID: 57200985669)
STMIK Lombok, NTB
Dwi Ely Kurniawan (Scopus ID: 57200983756)
Politeknik Negeri Batam, Batam
Mochamad Fajar Wicaksono (Scopus ID: 57204178999)
Universitas Komputer Indonesia
Iswandi Idris (Scopus ID: 57214154048)
Politeknik LP3I Medan, Medan
Ni Kadek Ayu Wirdiani (Scopus ID: 56109539200)
Universitas Udayana, Denpasar
Resad Setyadi (Scopus ID: 57204172534)
Asia e University Selangor, Malaysia
Putut Pamilih Widagdo (Scopus ID: 57193736102)
Universitas Mulawarman, Samarinda
Roman Voliansky (Scopus ID: 6507010480)
Oniprovs State Technical University
Nurul Hashimah Ahamed Hassain Malim(Scopus ID: 35090139100)
Universiti Sains Malaysia, Malaysia

Editorial Office:

Lembaga Penelitian dan Pengabdian Kepada Masyarakat (LPPM)
Sekolah Tinggi Manajemen Informatika dan Komputer (STMIK) Royal
Kisaran – Sumatera Utara, Telp. (0623) 41079 ex. 114
email: lppm_stmik@royal.ac.id



Supervised by:
iji RELAWAN
JURNAL INDONESIA



JURTEKSI	Vol 12	Nomor 1	Halaman 1 - 206	Kisaran December 2025	ISSN 2407-1811 (print)	ISSN 2550-0201 (online)
----------	-----------	------------	--------------------	-----------------------------	------------------------------	-------------------------------

JURTEKSI
JURNAL TEKNOLOGI DAN SISTEM INFORMASI
ISSN 2407-1811 (print)
ISSN 2550-0201 (online)

Volume 12, Nomor 1, December 2025, hlm. 1 – 206

- Implementation Of Daly BMS and Modulxhm604 As A Battery Pack For Ecgo2 Electric Motorcycles To Improve Safety, Capacity And Fast Charging 1 - 8
Muhammad Amin, Ricki Ananda (Universitas Royal)
- Grafana-Based Domain Expiration and SSL Certificate Monitoring System For Preventive Security 9 – 20
Nur Asyiyah, Hafiyyan Putra Pratama (Universitas Pendidikan Indonesia)
- Analysis of The Acceptance of The Sinaga Attendance Application At SMA Negeri 1 Jatilawang Using The Technology Acceptance Model (TAM) 21 – 28
Arbangi Puput Sabaniyah, Ika Romadhoni Yunita, Pungkas Subarkah (Universitas Amikom Purwokerto)
- Implementation of Random Forest Classifier For Student Graduation Classification 29 – 36
Bazil Zaidan Putra, Ika Nur Fajri, Agung Nugroho (Universitas Amikom Yogyakarta)
- Comparison Of Decision Tree And Random Forest Algorithms For Asthma 37 – 44
Wisriani Lase, Robet, Hendri (STMIK TIME)
- Naïve Bayes-Based Student Achievement Prediction System 45 – 52
Fadillah Angreani, Heny Pratiwi, Muhammad Ibnu Saad (STMIK Widya Cipta Dharma Informatics Engineering)
- Analyzing Students' Experience In Lms Spot Upi Using The UEQ 53 – 60
Fairuz Azka Azhari, Asep Nuryadin, Muhammad Dzikri Ar Ridlo (Universitas Pendidikan Indonesia)
- Comparison Of Clustering Models For Grouping Lifestyle Patterns And Obesity Factors 61 – 68
Khalid Al Mas Ud, Fathoni, Hafiz Muhammad Kurniawan (Sriwijaya University)

Comparison of Naïve Bayes, SVM, K-NN, Decision Tree, and Random Forest In Sentiment Analysis Based On Seabank Application Aspects <i>Muhammad Al Fachrozi, Ken Ditha Tania (Universitas Sriwijaya)</i>	69 - 80
Analysis Of Interest In Using BLU Deposit Based On TAM <i>Nathania Clarissa Pangestu, Heny Pratiwi, Amelia Yusnita (STMIK Widya Cipta Dharma)</i>	81 – 88
Forecasting The Jakarta Composite Index Using Lstm Based On Indonesian Market Data <i>Reni Yunita, Egi Dio Bagus Sudewo, Azyana Alda Sirait (Universitas Royal)</i>	89 – 96
A Fuzzy Logic Based Evaluation Model For Thesis Topic Feasibility To Enhance Student Research Relevance <i>Rizaldi, Dewi Anggraeni, Elly Rahayu (Universitas Royal)</i>	97 – 102
Selection Of Posyandu Cadres In Lubuk Kilangan District Using The Optimal Hybrid AHP–Topsis Method <i>Tika Christy, Sayendra Safaria (Universitas Nahdlatul Ulama)</i>	103 – 112
Web-Based Inventory System Development With Agile At Cv Dazry Harapan <i>Muhammad Hadi, Febri Dristyan, Dedi Handoko (Politeknik Jambi)</i>	113 – 120
Comparison SVM, RF, BERT Public Sentiment Data MBG In X <i>Gustri Efendi, Rus Yandi, Rani Aprilia, Irvan Amaroh Bit Taqwa Jerry (Universitas Nahdlatul Ulama)</i>	121 – 128
Digital Image Quality Optimization Using Deep Neural Network <i>Bachtiar Arifanto, Ahmad Abdul Chamid, Ratih Nindyasari (Universitas Muria Kudus)</i>	129 – 136
Optimizing Retrieval-Augmented Generation For Domain-Specific Knowledge Systems Through Fine-Tuning and Prompt Engineering <i>Ahmad Fajri (President University) Rila Mandala (Institut Teknologi Bandung)</i>	137 – 144

Analysing Student Mental Health Through K-Means Clustering And Multi-Stage Sampling Methods <i>Rahmat Hidayat (TVRI Stasiun Sumatera Barat), Dede Pratama (UPI YPTK Padang)</i>	145 – 152
Heuristic Greedy Algorithm For Optimal Tourist Route Recommendation In Pati Regency <i>Mohammad Ilham Kurnia, Alif Catur Murti, Rizkysari Mei Maharani (Universitas Muria Kudus)</i>	153 – 160
Analytic Network Process In Determining Recipients Of Education Grants North Sumatra Province <i>Adelia Fariza Putri, M Fakhriza (Universitas Islam Negeri Sumatera Utara)</i>	161 – 168
Intuitive UI Design For Mangrove Tree Detection App <i>Paranita Asnur, Dewi Agushinta R, Fitri, Siti Aliyah Ngakasih (Universitas Gunadarma)</i>	169 – 174
Efficientnet Model For Bone Age Prediction <i>Widi Hastomo, Elliya Sestri, Silvia Ningsih (Institut Teknologi dan Bisnis Ahmad Dahlah)</i>	175 – 182
Multi-Face Emotion Detection Using Convolutional Neural Networks Tiny Face Detector <i>Jason Istioso, Jeremiah Gerard, Marco Marchelino, Muhammad Akbar Maulana (Kwik Kian Gie School of Business)</i>	183 – 190
Stock Price Prediction For Materials Sector Using CNN And BI-LSTM ALGORITHM <i>Annisa Desianty, Widang Muttaqin (Universitas Telkom)</i>	191 – 198
YOLOV8 Detection For Student Dress Code Compliance Using Computer Vision <i>Geraldo Tan, Agung Saputra, Richardo Renzo Chandra, Radja Ardjuna Rithaudin Pua, Muhammad Akbar Maulana (Institut Bisnis dan Informatika Kwik Kian Gie)</i>	199 – 206