

JURNAL TEKNIK INFORMATIKA (JUTIF)

Volume 5 Number 5, October 2024

Jurnal Teknik Informatika (JUTIF) is an Indonesian national journal, that publishes high-quality research papers in the broad field of Informatics, Information Systems, and Computer Science, which encompasses software engineering, information system development, computer systems, computer network, algorithms and computation, and social impact of information and telecommunication technology.

Jurnal Teknik Informatika (JUTIF) is published by Department of Informatics, Universitas Jenderal Soedirman (UNSOED), Indonesia. JUTIF is published periodically 6 times a year (February, April, June, August, October, December). JUTIF has P-ISSN : 2723-3863 and E-ISSN : 2723-3871. JUTIF has been accredited SINTA 3 by Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, Indonesia From Vol 1 No 1 (2020) to Vol 5 No 2 (2024)

Editorial Address:

Building B, 2nd Floor, Faculty of Engineering.

Mayjen Sungkono Street, KM 5, Kalimanah, Purbalingga, Central Java, Indonesia Website :

<http://jutif.if.unsoed.ac.id>

Email : jutif.ft@unsoed.ac.id

JURNAL TEKNIK INFORMATIKA (JUTIF)

Volume 5 Number 5, October 2024

DEWAN REDAKSI

Editor In Chief

Dr. Ir. Lasmedi Afuan, S.T., M.Cs. (Universitas Jenderal Soedirman, Indonesia)

Managing Editor

Ir. Yogiek Indra Kurniawan, S.T., M.T. (Universitas Jenderal Soedirman, Indonesia)

Editorial Board

Dr. Deshinta Arrova Dewi (Inti International University, Malaysia)

Dr.Eng. Syful Islam (Noakhali Science and Technology University, Bangladesh)

Dr. Udayakumarnu Arun Kumar (Kathir College of Engineering, India)

Kingsley Ofosu-Ampong, Ph.D. (University of Ghana Business School, Ghana)

Ivan Kristianto Singgih, M.T. (Korea University of Science and Technology, South Korea)

Istiak Ahmad, M.Sc. (King Abdul Aziz University, Saudi Arabia)

Arief Kelik Nugroho, S.Kom., M.Cs. (Universitas Jenderal Soedirman, Indonesia)

Teguh Cahyono, S.T., M.Kom. (Universitas Jenderal Soedirman, Indonesia)

Bangun Wijayanto, S.T., M.Cs. (Universitas Jenderal Soedirman, Indonesia)

Hanung Nindito Prasetyo, S.Si., M.T. (Telkom University, Indonesia)

Hairani, S.Kom., M.Eng (Universitas Bumigora, Indonesia)

Endang Wahyu Pamungkas, Ph.D. (Universitas Muhammadiyah Surakarta, Indonesia.)

Layout Editor

Gendis Ariesta Pragitaputri (Universitas Jenderal Soedirman, Indonesia)

Gilang Dwi Ratmana (Universitas Jenderal Soedirman, Indonesia)

JURNAL TEKNIK INFORMATIKA (JUTIF)

Volume 5 Number 5, October 2024

Reviewers

Sukirman, M.T. (Universiti Pendidikan Sultan Idris, Malaysia)

Dr. Mohamed Arbane (Université des Sciences et de la Technologie Houari-Boumediène,
Algeria)

Dr. Jingfei Jiang (National University of Defense Technology, China)

Dr. Mohammed Humayun Kabir (Noakhali Science and Technology University, Bangladesh)

Muhammad Luthfi Hidayat, M.Pd. (King Abdul Aziz University, Saudi Arabia)

Muhammad Takdir Muslihi, M.T. (King Abdul Aziz University, Saudi Arabia)

Dr. Nurul Hidayat (Universitas Jenderal Soedirman, Indonesia)

Aini Hanifa, M.T. (Universitas Jenderal Soedirman, Indonesia)

Nur Chasanah, M.Kom. (Universitas Jenderal Soedirman, Indonesia)

Eddy Maryanto, M.Cs. (Universitas Jenderal Soedirman, Indonesia)

Ipung Permadi, M.Cs. (Universitas Jenderal Soedirman, Indonesia)

Swahesti Puspita Rahayu, M.T. (Universitas Jenderal Soedirman, Indonesia)

Ari Fadli, M.T. (Universitas Jenderal Soedirman, Indonesia)

Muhammad Syaiful A., M.T. (Universitas Jenderal Soedirman, Indonesia)

Kelik Sussolaikah, M.T. (Universitas PGRI Madiun, Indonesia)

Toni Kusnandar, M.T. (STMIK Mardira, Indonesia)

Eka Wahyu Hidayat, M.T. (Universitas Siliwangi, Indonesia)

Anna Syahrani, S.T., M.Eng. (Institut Teknologi Padang, Indonesia)

Yustina Retno Wahyu Utami, M.Cs. (STMIK Sinar Nusantara, Indonesia)

Fatah Yasin Al Irsyadi, M.T. (Universitas Muhammadiyah Surakarta, Indonesia)

Patrick Adolf Telnoni, M.T. (Telkom University, Indonesia)

Irma Yuliana, M.M., M.Eng. (Universitas Muhammadiyah Surakarta, Indonesia)

Dr. Aji Supriyanto, S.T., M.Kom (Universitas STIKUBANK Semarang, Indonesia)

Febri Dristyan, M.Kom (STMIK Royal, Indonesia)

Yoyon Efendi, M.Kom (STMIK Amik Riau, Indonesia)

Muhammad Fachrie, M.Cs. (Universitas Teknologi Yogyakarta, Indonesia)

Dudih Gustian, M.Kom (Universitas Nusa Putra, Indonesia)

Muhammad Khoiruddin Harahap (Politeknik Ganesha Medan, Indonesia)

Decky Hendarsyah, S.Kom., M.Cs. (STIE Syariah Bengkalis, Indonesia)

Diwahana Mutiara C.H., M.Kom (Sekolah Tinggi Ilmu Komputer Yos Sudarso Purwokerto,
Indonesia)

Bahtiar Imran, S. ST., M.TI (Universitas Teknologi Mataram, Indonesia)

Eka Rahmawati (Universitas Bina Sarana Informatika, Indonesia)

Anita Sindar RM Sinaga, ST., M.TI (STMIK Pelita Nusantara, Indonesia)

Deasy Wahyuni, M.Si (STMIK DUMAI, Indonesia)

I Gede Wiryawan, S.Kom., M.Kom. (Politeknik Negeri Jember, Indonesia)

Farida Yunita, M.T (STMIK Bina Patria, Indonesia)

Arkham Zahri Rahman, S.Kom., M.Eng. (Institut Teknologi Sumatera, Indonesia)

Luky Fabrianto, S.Kom., M.Kom. (STMIK Nusa Mandiri, Indonesia)

Dedi Gunawan, Ph.D. (Universitas Muhammadiyah Surakarta, Indonesia)

Jan Wantoro, S.T., M.Eng (Universitas Muhammadiyah Surakarta, Indonesia)

Puspanda Hatta, S.Kom., M.Eng. (Universitas Negeri Sebelas Maret, Indonesia)

Yusuf Sulisty Nugroho, Ph.D (Universitas Muhammadiyah Surakarta, Indonesia)

Rina Trisminingsih, M.T. (Universitas IPB, Indonesia)

Dimas Aryo Anggoro, M.Sc. (Universitas Muhammadiyah Surakarta, Indonesia)

Nofiyati, M.Kom. (Universitas Jenderal Soedirman, Indonesia)

Dadang Iskandar, M.Eng. (Universitas Jenderal Soedirman, Indonesia)

I Made Ardwi Pradnyana, M.T. (Universitas Pendidikan Ganesha, Indonesia)

JURNAL TEKNIK INFORMATIKA (JUTIF)

Volume 5 Number 5, October 2024

TABLE OF CONTENTS

<p style="text-align: center;"><i>STUDENT FOCUS DETECTION USING YOU ONLY LOOK ONCE V5 (YOLOV5) ALGORITHM</i></p> <p style="text-align: center;">Rosalina, Fitri Bimantoro, I Gede Pasek Suta Wijaya</p>	1203-1211
<p style="text-align: center;"><i>CYBERBULLYING SENTIMENT ANALYSIS OF INSTAGRAM COMMENTS USING NAÏVE BAYES CLASSIFIER AND K-NEAREST NEIGHBOR ALGORITHM METHODS</i></p> <p style="text-align: center;">Fitri Anisa Nirmala, Muhammad Jazman, Nesdi Evrilyan Rozanda, Febi Nur Salisah</p>	1213-1219
<p style="text-align: center;"><i>COMPARISON OF NAIVE BAYES AND RANDOM FOREST METHODS IN SENTIMENT ANALYSIS ON THE GETCONTACT APPLICATION</i></p> <p style="text-align: center;">Juan Pala Arisula, Parjito</p>	1221-1230
<p style="text-align: center;"><i>EMPLOYEE VOLUNTARY ATTRITION PREDICTION AT PT.XYZ: ENSEMBLE MACHINE LEARNING APPROACH WITH SOFT VOTING CLASSIFIER</i></p> <p style="text-align: center;">Cagiva Chaedar Bey Lirna, Trimono, Aviolla Terza Damaliana</p>	1231-1239
<p style="text-align: center;"><i>THE PERCEPTIONS OF SEMARANG FIVE STAR HOTEL TOURISTS WITH SUPPORT VECTOR MACHINE ON GOOGLE REVIEWS</i></p> <p style="text-align: center;">Muhammad Haikal Aufan, Maya Rini Handayani, Afifah Basmah Nurjanna, Nur Cahyo Hendro Wibowo, Khotibul Umam</p>	1241-1247
<p style="text-align: center;"><i>TWITTER (X) SENTIMENT ANALYSIS OF KAMPUS MERDEKA PROGRAM USING SUPPORT VECTOR MACHINE ALGORITHM AND SELECTION FEATURE CHI-SQUARE</i></p> <p style="text-align: center;">Mutiarra Sari, Syahrullah, Nouval Trezandy Lapatta, Rizka Ardiansyah</p>	1249-1256
<p style="text-align: center;"><i>IMPLEMENTATION OF DEEP LEARNING MODELS IN HATE SPEECH DETECTION ON TWITTER USING AN NATURAL LANGUAGE PROCESSING APPROACH</i></p> <p style="text-align: center;">Muhammad Arifin, Deni Mahdiana</p>	1257-1266

<p align="center"><i>CLASSIFICATION MODELS FOR ACADEMIC PERFORMANCE: A COMPARATIVE STUDY OF NAÏVE BAYES AND RANDOM FOREST ALGORITHMS IN ANALYZING UNIVERSITY OF LAMPUNG STUDENT GRADES</i></p> <p align="center">Dian Kurniasari, Rekti Nurul Hidayah, Notiragayu, Warsono, Rizki Khoirun Nisa</p>	1267-1276
<p align="center"><i>THE PERFORMANCE ANALYSIS OF REACTIVE AND PROACTIVE ROUTING PROTOCOLS FOR V2V COMMUNICATION IN DYNAMIC TRAFFIC SIMULATION</i></p> <p align="center">Ketut Bayu Yogha Bintoro, Ade Syahputra, Akmal Hadi Rismanto, Michael Marchenko</p>	1277-1286
<p align="center"><i>PAPAYA TYPE CLASSIFICATION USING YOLOv8</i></p> <p align="center">Egi Verdiansyah, Firman Nurdiyansyah, Istiadi</p>	1287-1297
<p align="center"><i>CATARACT CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK (CNN) INCEPTION RESNETV2</i></p> <p align="center">M. Mauludin Zulfa, Christian Sri Kusuma Aditya</p>	1299-1307
<p align="center"><i>CLASSIFICATION OF RICE ELIGIBILITY BASED ON INTACT AND NON-INTACT RICE SHAPES USING YOLO V8-BASED CNN ALGORITHM</i></p> <p align="center">Nazwa Putri Hastari, Tatang Rohana, Anis Fitri Nur Masruriyah, Deden Wahiddin</p>	1309-1318
<p align="center"><i>INFORMATION SYSTEM AUDITING USING COBIT 5 ON PRADITA UNIVERSITY E-LEARNING ASWAYA</i></p> <p align="center">Aldira Panduwitama, Wahyu Tisno Atmojo</p>	1319-1326
<p align="center"><i>ENSEMBLE MACHINE LEARNING WITH NEURAL NETWORK STUNTING PREDICTION AT PURBARATU TASIKMALAYA</i></p> <p align="center">Muhammad Al-Husaini, Hen Hen; Randi Rizal; Luh Desi Puspareni, Irani Hoeronis</p>	1327-1336
<p align="center"><i>SYSTEMATIC LITERATURE REVIEW OF DOCUMENTS SIMILARITY DETECTION IN THE LEGAL FIELD: TREND, IMPLEMENTATION, OPPORTUNITIES AND CHALLENGE USING THE KITCHENHAM METHOD</i></p> <p align="center">Muhammad Furqan Nazuli, Irfan Walhidayah, Amany Akhyar, Gusti Ayu Putri Saptawati Soekidjo</p>	1337-1354
<p align="center"><i>IMPLEMENTATION OF REST API ARCHITECTURE FOR FEELSQUEST ONLINE COURSE FEATURE IN FEELSBOX APPLICATION USING LARAVEL FRAMEWORK</i></p> <p align="center">Faza Alexander Riawan, Dana Sulistyo Kusumo, Nungki Selviandro</p>	1355-1364

<p><i>DEVELOPMENT OF MOBILE-BASED FREELANCE SERVICES MARKETPLACE WITH FEATURE-DRIVEN DEVELOPMENT METHODOLOGY</i></p> <p>Mochamad Ikhsan Nurdiansyah, Dana Sulisty Kusumo, Arief Ramadhan</p>	1365-1374
<p><i>IMPLEMENTATION OF A COMBINATION OF ADVANCED ENCRYPTION STANDARD CRYPTOGRAPHY WITH SUBBYTES MODIFICATION AND STEGANOGRAPHY BASED ON A WEBSITE</i></p> <p>Muhammad Ilham Kurniawan, Eddy Maryanto, Swahesti Puspita Rahayu</p>	1375-1384
<p><i>SENTIMENT ANALYSIS FOR E-COMMERCE PRODUCT REVIEWS BASED ON FEATURE FUSION AND BIDIRECTIONAL LONG SHORT-TERM MEMORY</i></p> <p>Habibullah Akbar, Diah Aryani, Marwan Kadhim Mohammed Al-shammari, M. Bahrul Ulum</p>	1385-1391
<p><i>CHATBOT FEATURES ON WEBSITES USING DIALOGFLOW FRAMEWORK WITH RULE-BASED METHOD</i></p> <p>Muhammad Afiq Nabih Riandika, Ajib Susanto, Nabila Maharani Respatria</p>	1393-1403
<p><i>HORTICULTURE SMART FARMING FOR ENHANCED EFFICIENCY IN INDUSTRY 4.0 PERFORMANCE</i></p> <p>Nurhikma Arifin, Chairi Nur Insani, Milasari, Muhammad Furqan Rasyid</p>	1405-1412
<p><i>CLASSIFICATION OF FAMILY HOPE PROGRAM RECIPIENTS USING NAIVE BAYES AND C4.5 METHODS</i></p> <p>Farras Ahmad Fauzi, Tatang Rohana, Ayu Ratna Juwita, Deden Wahiddin</p>	1413-1421
<p><i>FACIAL PHOTO AUTHENTICITY DETECTION USING FACE RECOGNITION AND LIVENESS DETECTION</i></p> <p>Bimo Vallentino Achmad, Supatman</p>	1423-1432
<p><i>COMPARISON OF K-NEAREST NEIGHBORS AND NAÏVE BAYES CLASSIFIER ALGORITHMS IN SENTIMENT ANALYSIS OF USER REVIEWS FOR INTERMITTENT FASTING APPLICATIONS</i></p> <p>Muhammad Varhan Kusuma, Safitri Juanita</p>	1433-1441
<p><i>LEARNING RATE AND EPOCH OPTIMIZATION IN THE FINE-TUNING PROCESS FOR INDOBERT'S PERFORMANCE ON SENTIMENT ANALYSIS OF MYTELKOMSEL APP REVIEWS</i></p> <p>Muhammad Naufal Zaidan, Yuliant Sibaroni, Sri Suryani Prasetyowati</p>	1443-1450

<p><i>IMPLEMENTATION OF DEEP LEARNING FOR DETECTING PHISHING ATTACKS ON WEBSITES WITH COMBINATION OF CNN AND LSTM</i></p> <p>Ahmad Raihan, Mohammad Fadhli, Lindawati</p>	<p>1451-1459</p>
<p><i>WEB-BASED IMAGE CAPTIONING FOR IMAGES OF TOURIST ATTRACTIONS IN PURBALINGGA USING TRANSFORMER ARCHITECTURE AND TEXT-TO-SPEECH</i></p> <p>Safa Muazam, Yogiek Indra Kurniawan, Dadang Iskandar</p>	<p>1460-1478</p>
<p><i>SPEARMAN CORRELATION ANALYSIS OF AIR AND BILLET TEMPERATURE IN ALUMINUM HOMOGENIZATION USING IoT-BASED REAL-TIME DATA COLLECTION</i></p> <p>Filzah Amanina Afiqah, Murman Dwi Prasetyo, Teddy Sjafrizal</p>	<p>1479-1486</p>
<p><i>IDENTIFYING POTENTIAL CREDIT CARD PAYMENT DEFAULTS USING GMDKNN WITH LOF AS OUTLIER HANDLING</i></p> <p>Liony Puspita Dewi, Yulison Herry Chrisnanto, Rezki Yuniarti</p>	<p>1487-1495</p>

JURNAL TEKNIK INFORMATIKA (JUTIF)**Volume 5 Number 5, October 2024****EDITORIAL PREFACE**

Gratitude for the presence of Allah Subhana Wa Ta'ala, Jurnal Teknik Informatika (JUTIF) Volume 5, Number 5, October 2024 was published on October 29, 2024.

JUTIF in this edition has received quite a lot of article submissions, but in the process some of the best articles have been selected according to the results of the review. This edition of the issue contains 29 articles from authors with 29 affiliations and 5 countries, including:

Nara Institute of science and technology (Japan), Dnipro National Univesity (Ukraine), Universiti Teknikal Malaysia Melaka (Malaysia), University of Baghdad (Iraq), University in Krakow (Polandia), Universitas Mataram (Indonesia), Universitas Islam Negeri Sultan Syarif Kasim Riau (Indonesia), Universitas Teknokrat Indonesia (Indonesia), Universitas Pembangunan Nasional "Veteran" Jawa Timur (Indonesia), Universitas Islam Negeri Walisongo Semarang (Indonesia), Universitas Tadulako (Indonesia), Universitas Budi Luhur (Indonesia), Universitas Lampung (Indonesia), Universitas Trilogi (Indonesia), Universitas Widya Gama Malang (Indonesia), Universitas Gadjah Mada (Indonesia), Universitas Muhammadiyah Malang (Indonesia), Universitas Buana Perjuangan Karawang (Indonesia), Univeristas Pradita (Indonesia), Universitas Siliwangi (Indonesia), Institut Teknologi Bandung (Indonesia), Universitas Telkom (Indonesia), Universitas Jenderal Soedirman (Indonesia), Universitas Esa Unggul (Indonesia), Universitas Dian Nuswantoro (Indonesia), Universitas Sulawesi Barat (Indonesia), Universitas Mercu Buana Yogyakarta (Indonesia), Politeknik Negeri Sriwijaya (Indonesia), Universitas Jenderal Achmad Yani (Indonesia)

We give the highest appreciation to the authors, reviewers, the editorial team and all parties involved in the preparation and publication of JUTIF for Volume 5 Number 5 in October 2024. In an effort to improve the quality of both the content and appearance of the journal, we expect suggestions and constructive criticism for improvements to the Next Edition.

Editorial Team