

JURNAL

ILMU PENGETAHUAN & TEKNOLOGI KOMPUTER

Vol. 10. No. 1 August 2024

ISSN: 2685-8223 (Printed)

ISSN: 2527-4864 (Online)



Publisher:

Lembaga Penelitian dan Pengabdian Masyarakat Universitas Nusa Mandiri
Jl. Jatiwaringin Raya No. 02 RT 08 RW 013 Kelurahan
Cipinang Melayu Kecamatan Makassar Jakarta Timur 13620
Phone: 021 28534471
<http://ejournal.nusamandiri.ac.id/index.php/jitk/index>

EDITORIAL BOARD

- Advisors : Chairman of Universitas Nusa Mandiri
- Responsible Person : Chairman of LPPM Universitas Nusa Mandiri
- Editor In Chief : Prof. Dr. Ir. Dwiza Riana, S.Si,MM, M.Kom, IPU, ASEAN. Eng Universitas Nusa Mandiri
- Associate Editors : Ir. Andi Saryoko, M.Kom, IPM Universitas Nusa Mandiri
- Board of Editors : Prof. Sheng Du
China University of Geosciences
- Dr. Fresy Nugroho, M.T.
Universitas Islam negeri Maulana Malik Ibrahim Malang
- Dr. Erick Fernando.,S.Kom., MSI
Universitas Multimedia Nusantara
- Dr. Ridha Sefina Samosir, S. Si., M. Kom
Institut Teknologi dan Bisnis Kalbis
- Siti Nurhasanah Nugraha, M.Kom
Universitas Nusa Mandiri
- Evita Fitri, M.Kom
Universitas Nusa Mandiri
- Esron Rikardo Nainggolan, M.Kom
Universitas Nusa Mandiri
- Sanjaya Pinem, S.Kom., M.Sc
Politeknik Negeri Media Kreatif
- Muhammad Fadlan, S.Kom., M.Kom.
STMIK PPKIA Tarakanita Rahmawati
- Taufik Hidayatulloh, M.Kom
Universitas Bina Sarana Informatika
- Bangkit Ary Pratama, SKM.,M.Kes.
Politeknik Kesehatan Bhakti Mulia
- Lusa Indah Prahartiwi, M.Kom
Universitas Nusa Mandiri
- A Ahmadi Irmansyah Lubis, S.Kom., M.Kom.
Politeknik Negeri Batam

Lukman Medriavin Silalahi, A.Md., ST., MT
Universitas Mercu Buana

Pungkas Subarkah, M.Kom.
Universitas Amikom Purwokerto

Syamsyarief Baqaruzi, S.T., M.T.
Institut Teknologi Sumatera

Wulan Dari, M.Kom
Universitas Nusa Mandiri

Debby Erce Sondakh, S.Kom, M.T., Ph.D
Universitas Klabat

Mulia Sulistiyono, M.Kom
Universitas Amikom Yogyakarta

Riyan Latifahul Hasanah, M.Kom
Universitas Nusa Mandiri

Reviewers : Prof. Dr. dr. Johan Harlan
Universitas Gunadarma Jakarta

Prof. Dr. Novizar Nazir
Universitas Andalas

Prof. Dr. H. Jufriadif Na`am
Universitas Nusa Mandiri

Dr. Foni Agus Setiawan, M.Kom
Universitas Ibn Khaldun

Dr. Windu Gata, M.Kom
Universitas Nusa Mandiri

Dr. Aida Firdaus Muhammad Nurul Azmi
Universiti Teknologi MARA

Dr. Muhardi
STMIK Hang Tuah Pekanbaru

Dr. Ing. Insannul Kamil
Universitas Andalas

Dr. Wahyudi
STMIK Indonesia Padang

Dr. Faiza Rini
STKIP PGRI Sumatera Barat

Dr. Tati Erlina
Universitas Andalas

Dr. Ahmad Sufril Azlan Mohamed
Universiti Sains Malaysia

Dr. Mohd Nadhir Ab Wahab
Universiti Sains Malaysia

Dr. (can) Bagus Haryadi, MT
National Dong Hwa University

Dr. Hendra Cipta, M.Si
Universitas Islam Negeri Sumatera Utara Medan

Dr. Nita Merlina, M.Kom
Universitas Nusa Mandiri

Dr. Arfive Gandhi, S.T., M.T.I.
Telkom University

Dr, Mardiana Purwaningsih, ST., M.Kom
Perbanas Institute

Dr., Ir., Nur Widiyasono, M.Kom., CEH., CHFI., CITAP., MCE., MET.
Universitas Siliwangi

Dr. Solikhun, M.Kom
STIKOM Tunas Bangsa

Dr (c). Yapiter Marpi, S.Kom., SH., MH., CMLC., C.TA., C.Med., C.Ed
Universitas Jakarta

Dr. Richard, S.Kom., M.M.
Universitas Bina
Nusantara

Dr. Faihatuz Zuhairoh, S.Si., M.Sc.
STKIP YPUP Makassar

Dr. Ir. Ananto Tri Sasongko, M.Sc.
Universitas Pelita Bangsa

Sopiany Dalis, M.Kom
Universitas Bina Sarana Informatika

Bambang Krismono Triwijoyo, M.Kom
STMIK Bumi Gora Mataram

Sri Hadianti, M.Kom
Universitas Nusa Mandiri

Agung Wibowo, M.Kom
Universitas Bina Sarana Informatika

Rohmat Indra Borman, M.Kom
Universitas Teknokrat Indonesia

Ardhin Primadewi, S. Si, M. TI.
Universitas Muhammadiyah Magelang

Linda Marlinda, S.Kom,M.M.,M.Kom
Universitas Nusa Mandiri

Muhammad Sholeh, ST,MT
Institut Sains & Teknologi AKPRIND Yogyakarta

Amandus Jong Tallo, S.T., M.Eng
Politeknik Negeri Kupang

Harya Bima Dirgantara, S. Kom., M.T.I.
Institut Teknologi dan Bisnis Kalbis

Soleman, S.Kom. M.Kom., MCE
Universitas Borobudur

Dr. Agus Nursikuwagus, MT.,MM.,MOS.,MTA
Universitas Komputer Indonesia

Yuwan Jumaryadi, S.Kom.,MM.,M.Kom.
Universitas Mercu Buana

Indra Gamayanto,ST.,M. ITM
Universitas Dian Nuswantoro

Yoga Pristyanto, S.Kom., M.Eng
Universitas Amikom Yogyakarta

Betty Dewi Puspasari, S.Kom, MT
Institut Teknologi Nasional (ITN) Malang

Masithoh Yessi Rochayani, S.Si., M.Stat.
Universitas Diponegoro

Putra Wanda, S.Kom.,M.Eng.Ph.D
Universitas Respati Yogyakarta

Muhammad Adrinta Abdurrazzaq, S.Kom, M.T.
Institut Teknologi dan Bisnis Kalbis

Fandy Setyo Utomo, S.Kom., M.Cs
Universitas AMIKOM Purwokerto

Marzuki Pilliang S.I.Kom, M.Kom
Esa Unggul University

Jefri Junifer Pangaribuan, S.Kom., M.TI.
Universitas Pelita Harapan

Agustinus Fritz Wijaya, S.Kom., M.Cs
Universitas Kristen Satya Wacana

Meida Cahyo Untoro, S.Kom.,M.Kom
Institut Teknologi Sumatera

Laila Qadrini, M.Stat.
Universitas Sulawesi Barat

Mochammad Choirur Roziqin, S.Kom, M.T
Politeknik Negeri Jember

Emmanuel Ariananto Waluyo Adi
Sekretariat Kabinet RI

Septian Bagus Wibisono, S.Kom., M.T.I.
Badan Meteorologi, Klimatologi, dan Geofisika

Bernad Jumadi Dehotman Sitompul, S.Kom., M.Kom.
Universitas Sam Ratulangi

Oman Somantri, M.Kom
Politeknik Negeri Cilacap

Rizal Amegia Saputra,M.Kom
Universitas Bina Sarana Informatika

Kelik Sussolaikah, S.Kom., M.Kom
Universitas PGRI Madiun

Darsono Nababan S.Kom., M.Kom
Universitas Timor

Imam Yunianto., S.Kom.,M.M., M.Kom
Institut Bisnis Muhammadiyah Bekasi

Evi Dewi Sri Mulyani, S.Kom., M.Kom
Universitas Perjuangan Tasikmalaya

Anita Sindar, ST., M.TI
STMIK Pelita Nusantara

Editorial Address : Kampus Universitas Nusa Mandiri Tower Jatiwaringin
Jl. Jatiwaringin Raya No. 02 RT 08 RW 013 Kelurahan Cipinang Melayu
Kecamatan Makassar Jakarta Timur 13620

Website : <http://ejournal.nusamandiri.ac.id/index.php/jitk>

Editorial Email : redaksi.jitk@nusamandiri.ac.id

PREFACE

Editor of JITK (Jurnal Ilmu Pengetahuan dan Teknologi Komputer), said praise and gratitude to the presence of Allah S.W.T, creator of the universe who mastered knowledge as wide as heaven and earth, for the abundance of grace and gifts that have been given to JITK editors to publish JITK Vol. 10. No. 1 August 2024, which is used by lecturers, researching, and professionals as a medium or media to publish publications on the findings of research conducted in each semester.

JITK is published 1 (one) year for 4 (four) times at the end of each semester, JITK editors receive scientific articles from the results of research, reports / case studies, information technology studies, and information systems, which are oriented to the latest in science and information technology in order to be a source of scientific information that is able to contribute to the increasingly complex development of information technology.

The editor invited fellow researchers, scientists from various tertiary institutions to make scientific contributions, both in the form of research results and scientific studies in the fields of management, education, and information technology. The editors really expect input from readers, information technology professionals, or those related to publishing, for the sake of increasing the quality of journals as we all hope.

The editor hopes that the scientific articles contained in the JITK scientific journal will be useful for academics and professionals working in the world of management, education, and information technology

Chief Editor

TABLE OF CONTENTS

| | |
|--|---------|
| FRONT MATTER | i |
| EDITORIAL BOARD..... | ii |
| PREFACE | vii |
| TABLE OF CONTENTS | viii |
| | |
| 1. COMPARISON OF DEEP LEARNING METHODS ON SENTIMENT ANALYSIS USING WORD EMBEDDING Rizal Gibran Aldrin Pratama, Nuri Cahyono..... | 1 - 8 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5280 | |
| | |
| 2. MODEL OF INDONESIAN CYBERBULLYING TEXT DETECTION USING MODIFIED LONG SHORT-TERM MEMORY Mariana Purba, Paisal Paisal, Cahyo Pambudi Darmo, Handrie Noprisson, Vina Ayumi | 9 - 14 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5239 | |
| | |
| 3. ENHANCING MOBILE CRYPTOCURRENCY WALLETS: A COMPREHENSIVE ANALYSIS OF USER EXPERIENCE, SECURITY, AND FEATURE DEVELOPMENT Richard Richard, Muhammad Ammar Marsuki, Gading Aryo Pamungkas, Felix Irwanto | 15 - 22 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5157 | |
| | |
| 4. COMPARISON OF ADALINE AND HEBBIAN ALGORITHMS ON PATTERN RECOGNITION WITH QUANTUM COMPUTING APPROACH Taufik Baidawi, Heri Kuswara, Muhammad Ridwan Effendi, Solikhun Solikhun..... | 23 - 31 |
| DOI : https://doi.org/10.33480/jitk.v10i1.4941 | |
| | |
| 5. ENTERPRISE ARCHITECTURE TRENDS OVER A DECADE: A BIBLIOMETRIC ANALYSIS Albi Firmansyah, Grandys Frieska Prassida..... | 32 - 41 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5279 | |
| | |
| 6. IMPLEMENTATION OF FISHER-YATES SHUFFLE ALGORITHM IN ANDROID-BASED JAVANESE BATIK CULTURE EDUCATION GAME Ben Rahman, Mochamad Naufal Shofy, Septi Andryana..... | 42 - 52 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5256 | |
| | |
| 7. EMPOWERING STRAWBERRY CULTIVATION: HARNESSING THE POTENTIAL OF IOT-BASED TECHNOLOGY IN SMART FARMING Kartika Sari, Rahmi Hidayati, Irma Nirmala, Uray Ristian | 53 - 61 |
| DOI : https://doi.org/10.33480/jitk.v10i1.4162 | |
| | |
| 8. IMPLEMENTATION OF IOT-BASED PRESENCE APPLICATIONS IN JUNIOR HIGH SCHOOLS TO SUPPORT IMPLEMENTATION SMART SCHOOLS M Khairul Anam, Zeki Kurniadi, Helda Yenni, Rometdo Muzawi, Khusaeri Andesa, Herwin Herwin | 62 - 72 |
| DOI : https://doi.org/10.33480/jitk.v10i1.4119 | |
| | |
| 9. The APPLICATION OF GDSS USING AHP AND BORDA METHODS IN HYDROPONIC PLANT QUALITY DETERMINATION Nurul Ilmy Husain, St. Hajrah Mansyur, SHM; Erick Irawadi Alwi, EIA | 73 - 82 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5016 | |
| | |
| 10. COMPARATIVE ANALYSIS OF CANNY, SOBEL, PREWITT AND ROBERTS EDGE DETECTION OPERATORS ON EYE IRIS IMAGES Teuku Radillah, Okta Veza, Sumijan Sumijan..... | 83 - 90 |
| DOI : https://doi.org/10.33480/jitk.v10i1.5062 | |

11. BRAIN TUMOR CLASSIFICATION USING INCEPTIONRESNET-V2 AND TRANSFER LEARNING APPROACH
Vallent Austin Theasar Kurniawan, Elan Cahya Niswary, christian s.k.aditya, Didih Rizki Chandranegara 91 - 99
DOI : <https://doi.org/10.33480/jitk.v10i1.5223>
12. ACTIVATION FUNCTION IN LSTM FOR IMPROVED FORECASTING OF CLOSING NATURAL GAS STOCK PRICES
Budimann Budiman, Nur Alamsyah, R. Yadi Rakhaman Alamsyah 100 - 107
DOI : <https://doi.org/10.33480/jitk.v10i1.5258>
13. ACHIEVEMENT STUDENT SELECTION SYSTEM USING THE SAW METHOD AND WSM METHOD
Rizal Furqan Ramadhan 108 - 115
DOI : <https://doi.org/10.33480/jitk.v10i1.5055>
14. COMPARISON OF SVM AND NAÏVE BAYES CLASSIFIER ALGORITHMS ON STUDENT INTEREST IN JOINING MSIB
Amira Aida Rashifa, Hendra Marcos, Pungkas Subarkah, Siti Alvi Sholikhatin 116 - 123
DOI : <https://doi.org/10.33480/jitk.v10i1.5270>
15. EFFECTIVITY IMPROVEMENT OF HYBRID PROJECT MANAGEMENT WATER-SCRUM-FALL WITH SIX SIGMA IMPLEMENTATION
Aria Setyoko, Teguh Rahardjo, Nur Fitriani Anita 124 - 131
DOI : <https://doi.org/10.33480/jitk.v10i1.5539>
16. DEVELOPMENT A DAILY NUTRITIONAL ADEQUACY BALANCE IDENTIFICATION SYSTEM AS AN EFFORT TO PREVENT MALNUTRITION
Abidatul Izzah, Daniel Swanjaya, Kunti Eliyen 132 - 141
DOI : <https://doi.org/10.33480/jitk.v10i1.5188>
17. ELECTRIC BICYCLE SELECTION SYSTEM USING MULTI CRITERIA DECISION MAKING
Heribertus Ary Setyadi, Doddy Satrya Perbawa 142 - 151
DOI : <https://doi.org/10.33480/jitk.v10i1.5163>
18. COMPARATIVE ANALYSIS OF EXPONENTIAL SMOOTHING MODELS FOR SALES PREDICTION AND SUPPLY MANAGEMENT IN E-COMMERCE
Aji Saeful, Fandy Setyo Utomo, Yuli Purwati, Mohd Sanusi Azmi 152 - 159
DOI : <https://doi.org/10.33480/jitk.v10i1.5035>
19. IMPROVING STUNTING CLASSIFICATION PERFORMANCE USING COMBINATION SMOTE TECHNIQUE AND ARTIFICIAL NEURAL NETWORK ALGORITHM
Wiga Maulana Baihaqi, Ida Nur Laela, Darso Darso 160 - 167
DOI : <https://doi.org/10.33480/jitk.v10i1.4998>
20. TICKER SYMBOL IDENTIFICATION WITH CIMA ON NON-STATIONARY STOCK PRICE DATASET
Aji Gautama Putrada, Maman Abdurohman, Doan Perdana, Hilal Hudan Nuha 168 - 180
DOI : <https://doi.org/10.33480/jitk.v10i1.5349>
21. LEARNING AUTOMATA-BASED AODV ROUTING PROTOCOL TO IMPROVE V2V COMMUNICATION IN URBAN TRAFFIC SIMULATION
Ade Syahputra, Ketut Bayu Yogha Bintoro, Erssa Istary Yusuf, Michael Marchenko 181 - 188
DOI : <https://doi.org/10.33480/jitk.v10i1.5551>
22. COMBINATION OF LOGARITHMIC PERCENTAGE CHANGE AND GREY RELATIONAL ANALYSIS FOR BEST ADMINISTRATION STAFF SELECTION
Sumanto Sumanto, Mochamad Wahyudi 189 - 196
DOI : <https://doi.org/10.33480/jitk.v10i1.5564>

23. PERFORMANCE OF THE YOLOV5 ALGORITHM TO DETECT HUMANS IN THE REAR EXCAVATOR AREA
Hanna Naili Syifa', Anan Nugroho 197 – 207
DOI : <https://doi.org/10.33480/jitk.v10i1.5576>
24. PERFORMANCE OF ROBUST SUPPORT VECTOR MACHINE CLASSIFICATION MODEL ON BALANCED,
IMBALANCED AND OUTLIERS DATASETS
Muhammad Ardiansyah Sembiring, Herman Saputra, Riki Andri Yusda, Sutarmen Sutarmen, Erna
Budhiarti Nababan..... 208 – 215
DOI : <https://doi.org/10.33480/jitk.v10i1.5272>
25. IMPLEMENTING RETRIEVAL-AUGMENTED GENERATION AND VECTOR DATABASES FOR CHATBOTS
IN PUBLIC SERVICES AGENCIES CONTEXT
Ibnu Pujiono, Irfan Murtadho Agtyaputra, Yova Ruldeviyani 216 – 223
DOI : <https://doi.org/10.33480/jitk.v10i1.5572>