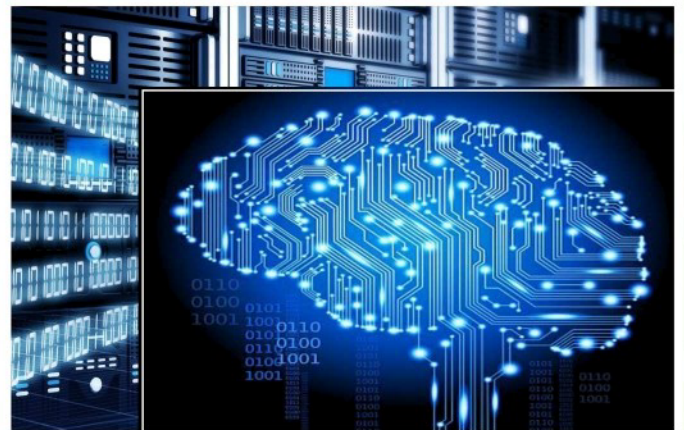
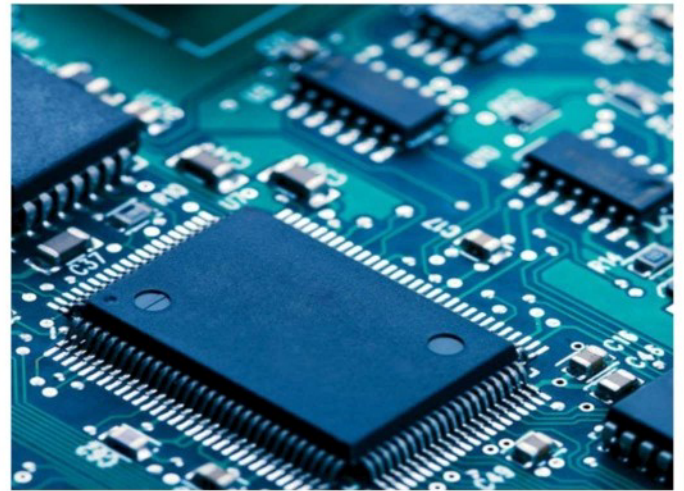
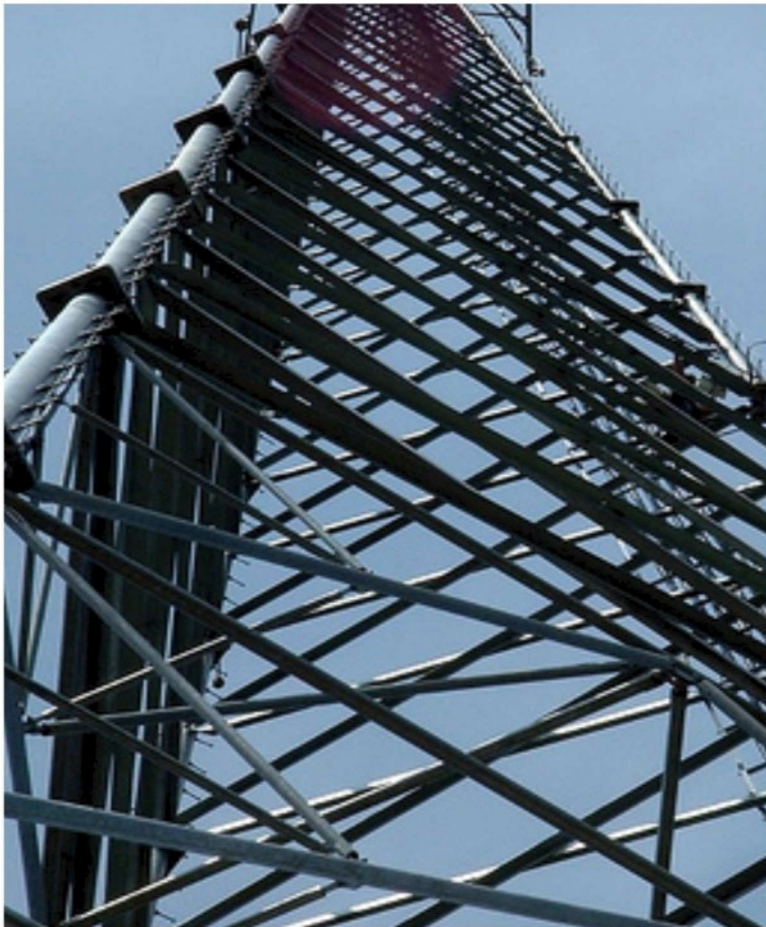


# JURNAL INFOTEL

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Volume 15, Number 3, August 2023



Lembaga Penelitian dan Pengabdian Masyarakat  
Institut Teknologi Telkom Purwokerto



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**Informatics, Telecommunication, and Electronics**  
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Jurnal INFOTEL is a scientific journal published by Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) of Institut Teknologi Telkom Purwokerto, Indonesia. It was firstly published in 2009 for a printed version and for online version in 2012. The aims of Jurnal INFOTEL are to disseminate research results and to improve the productivity of scientific publications. Jurnal INFOTEL is published quarterly in February, May, August, and November. **Starting in 2018, Jurnal INFOTEL uses English as the primary language.**

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**PREFACE FROM EDITOR-IN-CHIEF**

Jurnal INFOTEL is a scientific journal published by Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) of Institut Teknologi Telkom Purwokerto, Indonesia. It covers the field of Informatics, Telecommunications, and Electronics. The aims of Jurnal INFOTEL are to disseminate research results and to improve the productivity of scientific publications. Starting in Volume 10 Number 1, 2018, Jurnal INFOTEL uses English as the primary language.

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In this issue, 13 papers are published by ... authors from ... countries. Four papers related to Informatics topics, seven papers related to Telecommunication topics, and four papers is about Electronics topic.

We would like to thank our Associate Editors, Editorial Boards, Reviewers, and Authors. We hope that Jurnal INFOTEL can contribute to the progress of scientific publications in Indonesia and in the world.

Purwokerto, August 2023

Editor-in-Chief

**JURNAL INFOTEL**  
**Informatics, Telecommunication, and Electronics**  
 Volume 15, Number 3 August 2023

**TABLE OF CONTENT**

Description and Policy .....	i
Editorial Board .....	iii
Preface from Editor-in-Chief .....	v
Table of Content .....	vi
<b>Extracting software requirements-related information from online news using DomText-WMDS</b>	
Mutia Rahmi Dewi Politeknik Negeri Padang, Indonesia	
Indra Kharisma Raharjana Airlangga University, Indonesia	
Daniel Siahaan Institut Teknologi Sepuluh Nopember, Indonesia	
Nurul Jannah International Islamic University Malaysia, Malaysia	
.....	218-226
<b>Medical image classification of brain tumor using convolutional neural network algorithm</b>	
Alwas Muis Universitas Ahmad Dahlan, Indonesia	
Sunardi Sunardi Universitas Ahmad Dahlan, Indonesia	
Anton Yudhana Universitas Ahmad Dahlan, Indonesia	
.....	227-232
<b>Prediction of patient length of stay using random forest method based on the Indonesian national health insurance</b>	
Aini Hanifa Universitas Jenderal Soedirman, Indonesia	
Yogiek Indra Kurniawan Universitas Jenderal Soedirman, Indonesia	
Jati Hiliamsyah Husen Waseda University, Tokyo Japan	
Arief Kelik Nugroho Universitas Jenderal Soedirman, Indonesia	
Ipung Permadi Universitas Jenderal Soedirman, Indonesia	
.....	233-240
<b>Analytic hierarchy process for evaluating the quality of courier services in e-commerce services from the perspective of Pos Indonesia Purwokerto</b>	
Jihad Sindhu Gossa Institut Teknologi Telkom Purwokerto, Indonesia	
Khairun Nisa Meiah Ngafidin Institut Teknologi Telkom Purwokerto, Indonesia	
Sisilia Thya Safitri Institut Teknologi Telkom Purwokerto, Indonesia	
.....	241-248
<b>Design of machine learning-based water quality prediction system with recursive feature elimination cross-validation</b>	
James Julian Universitas Pembangunan Nasional Veteran Jakarta, Indonesia	
Annastya Bagas Dewantara Universitas Pembangunan Nasional Veteran Jakarta, Indonesia	
Fitri Wahyuni Universitas Pembangunan Nasional Veteran Jakarta, Indonesia	
.....	249-255
<b>A proposal for the regulation of the spectrum usage fee in 5G private network using fuzzy AHP</b>	
Alfin Hikmaturokhman Institut Teknologi Telkom Purwokerto, Indonesia	
Kasmad Ariansyah Badan Riset dan Inovasi Nasional, Indonesia	
.....	256-263
<b>Literature study of learning-based video compression</b>	
Kholidiyah Masykuroh Bandung Institute of Technology, Indonesia	
Eueung Mulyana Bandung Institute of Technology, Indonesia	
.....	264-272
<b>Scalable modular massive MIMO antenna of rectangular truncated corner patch antenna and circular slotted X patch antenna for 5G antenna communication</b>	
Salwa Salsabila Telkom University, Indonesia	

Rina Pudjiastuti Telkom University, Indonesia Levy Olivia Nur Telkom University, Indonesia Harfan Hian Ryanu Telkom University, Indonesia Bambang Setia Nugroho Telkom University, Indonesia .....	273-279
<b>Genetic algorithm for finding shortest path of mobile robot in various static environments</b>	
Dyah Lestari Universitas Negeri Malang, Indonesia Siti Sendari Univesitas Negeri Malang, Indonesia Ilham Ari Elbaith Zaeni Universitas Negeri Malang, Indonesia .....	280-286
<b>An enhancement to the FLC-based baby incubator system using genetic algorithm</b>	
Setiyo Budiyanto, SB Universitas Mercu Buana, Indonesia Lukman Medriavin Silalahi, LMS Universitas Mercu Buana, Indonesia Dadang Gunawan Universitas Indonesia Erry Yulian Triblas Adesta Universitas Indo Global Mandiri .....	287-301
<b>Design of a microcontroller-based quadcopter prototype module Fly Sky XL163RX take off and landing</b>	
Yuliarman Saragih Universitas Singaperbangsa Karawang, Indonesia Ibrahim Lammada Universitas Singaperbangsa Karawang, Indonesia Ridwan Satrio Hadikusuma Universitas Katolik Indonesia Atma Jaya, Indonesia Kayat Handayana Universitas Singaperbangsa Karawang, Indonesia Agatha Elisabeth Pusan National University, South Korea .....	302-3xx
Peer Review Acknowledgement .....	vii
Guidelines for Author .....	ix