

Jurnal  
**ASIIMETRIK**  
JURNAL ILMIAH REKAYASA DAN INOVASI

volume  
**5**  
nomor  
**1**  
JANUARI  
2023



<http://journal.univpancasila.ac.id/index.php/asiimetrik/>



*Jurnal*  
**ASIIMETRIK**  
JURNAL ILMIAH REKAYASA DAN INOVASI

volume  
**5**  
nomor  
**1**  
JANUARI  
2023



<http://journal.univpancasila.ac.id/index.php/asiimetrik/>





**SINTA 4**  
Kemenristek/BRIN, Nomor SK: 200/M/KPT/2020

p-ISSN 2655-1861  
e-ISSN 2716-2923

*Jurnal*  
**ASIIMETRIK**  
JURNAL ILMIAH REKAYASA DAN INOVASI

Redaksi Jurnal ASIIMETRIK  
Srengseng Sawah, Jagakarsa, Jakarta Selatan, 12640  
② 021.789 4730 ext. 107  
✉ <http://journal.univpancasila.ac.id/index.php/asiimetrik>  
✉ [asiimetrik@univpancasila.ac.id](mailto:asiimetrik@univpancasila.ac.id)



Volume 5 Nomor 1  
JANUARI  
2023

**Editor-in-Chief:**

- Dr. Agri Suwandi. ST., MT.  
*ID Sinta: 258280 ; ID Scopus: 56267780300*

**Editorial Board:**

- Prof. Ir. Djoko Wahyu Karmiadji, MSME, PhD  
(*Universitas Pancasila, Indonesia*)  
*ID Sinta: 600737 ; ID Scopus: 57191582540*
- Prof. Dr. Ir. Dwi Rahmalina, MT.  
(*Universitas Pancasila, Indonesia*)  
*ID Sinta: 5975650 ; ID Scopus: 43261707900*
- Dr. Muhammad Yusro, M.T.  
(*Universitas Negeri Jakarta, Indonesia*)  
*ID Sinta: 5988066 ; ID Scopus: 54974407500*
- Dr. Januar Parlaungan Siregar  
(*Universiti Malaysia Pahang, Malaysia*)  
*ID Scopus: 57189757307*
- Prof. Ralf Förster  
(*Berliner Hochschule für Technik (BHT), Germany*)  
*ID Scopus : 8637446600*

**Section Editor:**

- Ir. Duta Widhya Sasmojo, MT.
- Ari Wibowo, S.Kom.

**Assistant Editor:**

- Catur Ria Kustianti., A.Md
- Risqi Putri Wulandari, S.Hum.



**Publisher:**

- Fakultas Teknik Universitas Pancasila  
UP2M (Unit Penelitian dan Pengabdian kepada Masyarakat)

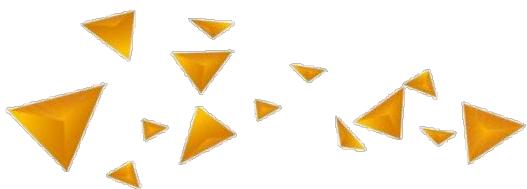
**Editorial Address:**

-  Srengseng Sawah, Jagakarsa, Jakarta Selatan, 12640
-  Telp. 021- 786 4730 ext. 107
-  [asiimetrik@univpancasila.ac.id](mailto:asiimetrik@univpancasila.ac.id)
-  <http://journal.univpancasila.ac.id/index.php/asiimetrik/>

© 2023 *Jurnal Asiimetrik: Jurnal Ilmiah Rekayasa Dan Inovasi*  
Copyright is protected by law. It is strictly forbidden to duplicate, reproduce and reprint without written permission from  
the Editorial Board of *Jurnal Asiimetrik: Jurnal Ilmiah Rekayasa Dan Inovasi*



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)



**SINTA 4**

Kemenristek/BRIN, Nomor SK: 200/M/KPT/2020

p-ISSN 2655-1861

e-ISSN 2716-2923

Jurnal **ASIMETRIK**  
JURNAL ILMIAH REKAYASA DAN INOVASI

**REDAKSI**



Volume 5 Nomor 1

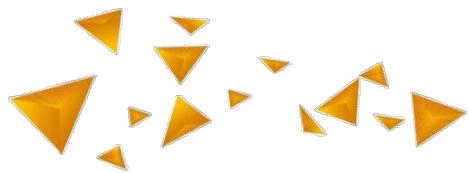
JANUARI  
2023

**Jurnal Asiimetrik: Jurnal Ilmiah Rekayasa dan Inovasi** is a national journal published by Faculty of Engineering Universitas Pancasila. It has been accredited "Rank 4" or **SINTA 4** by the Ministry of Research and Technology/BRIN based on the decree number: 200/M/KPT/2020 and is registered with **p-ISSN 2655-1861 (print)** and **e-ISSN 2716-2923 (online)** and can be accessed via the website: <http://journal.univpancasila.ac.id/index.php/asiimetrik/>.

**Jurnal Asiimetrik: Jurnal Ilmiah Rekayasa dan Inovasi** is published regularly every **two times a year**, in **January and July**. This journal publishes research-based scientific articles, case studies, review articles, engineering and innovations that cover both theoretical and practical as well as their development. The topics of scientific articles published cover the fields of Architecture, Civil Engineering, Industrial Engineering, Informatics Engineering, Mechanical Engineering and Electrical Engineering.

**SUMMARY.** **Assiddiqie and Bunga** did research on the analysis of heat transfer in circulating patchouli distillation water using a 150-liter tank to increase the effectiveness and quality of the patchouli distillation process. **Mulyadi et al.** investigated the phenomenon of spring-back and spring-go in the bending kinematic forming process utilizing V-bending dies and electrolytic zinc-coated steel sheet material (SECC/JIS G 3313). **Asy'ari et al.** did research on the analysis of the performance of the NVIDIA Jetson Nano in processing deep learning models and moving actuators based on the model's predictions. In their work, **Primadevi and Mardiana** described ECG performance assessment utilizing the denoising technique and the Empirical Mode Decomposition (EMD) methodology to find ideal ECG parameters. In their research, **Wirasasmita and Anisa** examined Twitter sentiment analysis utilizing the Grid Search Algorithm (GSA) and Support Vector Machine (SVM) techniques. **Pratama and Anisa** analyzed the deployment of Modbus TCP/IP connectivity in the use of production data visualization on the Andon line production system to create a more efficient production system. Using the Naive Bayes Classifier Method, **Herumawan and Anisa** conducted research aimed at resolving the issue of inaccuracies in the fingerprint scanner system. **Riyanto et al.** perform research that contributes to the transformation of the manual management system into an Internet-based information system. **Prayoga et al.** using the Pahl and Beitz approaches to generate the ideal design for a 5-kilogram-per-hour corn-flour-making machine. In small-scale wind tunnels, **Putra et al.** analyzed the influence of passive grid addition on turbulence. **Subandi's** study on security modifications to the Simple Network Time Protocol (SNTP) to detect cybercrime in network activities intends to protect internet users while they surf cyberspace. **Rahmasai et al.** detect and manipulate pressure variables to enhance the performance of automobile engines. **Lubi et al.** conducted study on the influence of thinner mixes on the adhesive

strength and coating thickness of custom spray paint refill tools created in earlier investigations. To reduce the danger of COVID-19 transmission, **Liawan et al.** conducted research on airflow analysis and thermal comfort in the Heat and Mass Transfer Laboratory using the computational fluid dynamics (CFD) method. **James et al.** did research on NACA 4415: Aerodynamic Performance Improvement by Using a Cavity, for which a prototype model has been developed by earlier researchers. **Ardiansyah and Rahmalina** conducted material-related study by analyzing damage on the wheel surface of an electric rail train. People with cerebral palsy, particularly youngsters, require mobility aids, such as wheelchairs, to do daily tasks. When constructing wheelchairs for children with cerebral palsy, an ergonomics evaluation is required to verify that the resulting wheelchairs are safe and do not represent a risk in the future. In their research, **Rahmalina et al.** evaluated the ergonomics of wheelchairs for children with cerebral palsy using digital human modeling.



SINTA 4

Kemenristek/BRIN, Nomor SK: 200/M/KPT/2020

p-ISSN 2655-1861

e-ISSN 2716-2923

Jurnal ASIMETRIK  
JURNAL ILMIAH REKAYASA DAN INOVASI

DAFTAR ISI



Volume 5 Nomor 1  
JANUARI  
2023

Analisis Perpindahan Panas pada Sirkulasi Air Penyulingan Nilam dengan Tangki Bervolume 150 Liter <i>Zaky Assiddiqie dan Nely Toding Bunga*</i>	1-10
<i>The Effect of V-Bending Parameters Utilizing Electrolytic Zinc-Coated Steel Sheet (SECC) Material</i> <i>Dodi Mulyadi, Khoirudin, Sukarman*, Mohamad Rizkiyanto, Nana Rahdiana, Ade Suhara, Ahmad Fauzi dan Sumanto</i>	11-18
Implementasi Algoritma Convolutional Neural Network Pada Kendaraan Tanpa Awak Skala Kecil <i>Muhammad Zacky Asy'ari*, Anthony Williams Gouw dan Desliong Arjuna Limanjaya</i>	19-26
Uji Kinerja Sistem Denoising Sinyal Jantung atau EKG dengan Menggunakan Algoritma <i>Empirical Mode Decomposition (EMD)</i> <i>Ferawidya Primadevi* dan Yahya Mardiana</i>	27-34
Analisis Sentiment Twitter Berbasis Grid Search Algorithm (GSA) dengan Metode <i>Support Vector Machine (SVM)</i> <i>Dedi Wirasasmita* dan Efi Anisa</i>	35-42
Analisis Implementasi Komunikasi Modbus TCP/IP dalam Penerapan Visualisasi Data Hasil Produksi pada Sistem Andon <i>Line Production</i> <i>Bonanza Yoma Pratama* dan Efi Anisa</i>	43-52
Klasifikasi Gender Berdasarkan <i>Fingerprint</i> Menggunakan Metode <i>Naive Bayes Classifier</i> <i>Cindhy Herumawan* dan Efi Anisa</i>	53-62
Sistem Informasi Simpan Pinjam Berbasis Web pada Koperasi Jasa Kawan Sejahtera Fakultas Teknik Universitas Pancasila <i>Sugeng Riyanto, Eva Rahmawati*, Hylenarti Hertyana dan Elly Mufida</i>	63-70
Perancangan Mesin Pembuat Tepung Jagung Kapasitas 5 kg/jam dengan Metode Pahl dan Beitz <i>hammad Galang Adi Prayoga, Dahmir Dahlan dan Arif Riyadi Tatak*</i>	71-82
Analisis Pengaruh Penambahan Passive Grid Terhadap Turbulensi pada Wind Tunnel Skala Kecil <i>Bima Heska Putra, Erwin* dan Slamet Wiyono</i>	83-92
Peningkatan Keamanan pada Simple Network Time Protocol (SNTP) untuk Mendeteksi <i>Cybercrime</i> di dalam Aktivitas Jaringan <i>Kotim Subandi*, Victor Ilyas Sugara dan Adriana Sari Aryani</i>	93-100
Identifikasi dan Pengaruh Peubah Penekan dalam Peningkatan Performa Mesin Mobil <i>Fauzhia Rahmasari*, Fogot Endro Wibowo, Nur Witdi Yanto dan Mareta Eko Pujiyanto</i>	101-114

<b>Pengaruh Campuran <i>Thinner</i> Terhadap Daya Rekat dan Ketebalan Lapisan Hasil dari Alat Custom Refill Cat Semprot</b>	115-122
<i>Ahmad Lubi*, Yunita Sari, Rani Anggarainy, Ardi Candra Fatkhurrohman, Mohammad Rizqi Dwi Febrianto, Reynaldi Ramadhan dan Ferry Budhi Susetyo</i>	
<b>Analisis Aliran Udara dan Kenyamanan Termal di Laboratorium Perpindahan Panas dan Massa menggunakan Metode Computational Fluid Dynamics (CFD)</b>	123-134
<i>Jason Prathana Liawan, Harto Tanujaya dan Steven Darmawan*</i>	
<b>Aerodynamic Performance Improvement on NACA 4415 Airfoil by Using Cavity</b>	135-142
<i>James Julian*, Waridho Iskandar, Fitri Wahyuni, dan Nely Toding Bunga</i>	
<b>Analisis Kerusakan Pada Permukaan Roda Kereta Rel Listrik</b>	143-152
<i>Muhammad Ardiansyah dan Dwi Rahmalina*</i>	
<b>Evaluasi Ergonomi pada Kursi Roda untuk Anak Cerebral Palsy Menggunakan Digital Human Modeling</b>	153-160
<i>Dwi Rahmalina, Desinta Rahayu Ningtyas*, Nur Yulianti Hidayah, Agri Suwandi, Dede Lia Zariatin, I Gede Eka Lesmana, Dhidiq Mahandika dan Susanto</i>	

\*Penulis Korespondensi