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021.789 4730 pst. 107
asiimetrik@univpancasila.ac.id

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Telp. 021- 786 4730 ext. 107
asiimetrik@univpancasila.ac.id
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EDITORIAL

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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. Wenno et al. optimized Over Current Relay (OCR) parameters for a Manado City underground cable system to improve dependability. Based on cross-sectional area calculations and current-carrying capacity, they set the OCR to 5 amperes with a TMS of 0.004. They considered future load increases. **Prabowo and Hesananda** used K-Means Clustering to study awareness of Indonesian credit card advertisements from August 2023 to March 2024. Their investigation found three user clusters: highly aware, moderately aware, and low awareness, supporting segmentation with Silhouette Scores above 0.60. These data can help credit card companies target marketing. For faster seaweed drying than sun-drying, **Suwandi et al.** created a hybrid energy-powered instrument. The 50-kg Pahl and Beitz tool has a 3.5-hp diesel motor and three 100-Wp solar panels. Simulations showed the stand and shaft were structurally safe with stress values below material yield strengths. By testing organic solvents and mixing ratios, **Wulansari et al.** optimized thinner automotive paint compositions. Their research found that a 5:3:3 composition (EA:IPA:MS) with 5B adhesion and low turbidity was best for automotive thinner applications because of its excellent process capacity. At Universitas Jenderal Achmad Yani, **Iskandar et al.** created a solar tree system for electric charging stations. The 3-hour-optimized system takes 599.6 Wp from 6 PV panels to power electric bikes and laptops throughout the day and has a two-day autonomy. A 4000 mm pole and round PV panels are in the 3D model. **Abikusna et al.** handled electrical concerns during the performance test (QA6) in PT XYZ's Component Exchange (COMEX) Department. They built an electrical performance test instrument and updated work instructions using an 8-step process, reducing electrical part rework by 100% from January-February 2024 to April-June 2024. **Kurniawan et al.** examined Manokwari's 20 kV electrical distribution system's capacity and voltage compliance to meet escalating demand. Using DigSILENT PowerFactory software, they compared building a 150

kV transmission line or an express feeder. Their findings offer technical solutions to improve Manokwari's electricity infrastructure reliability and sustainability. **Subagio and Siwi** examined architectural design alternatives for Centro City Residence flats, which have poor ventilation and terrible views due to a dirty river. The descriptive qualitative study suggests turning Kali Sodetan Sekretaris into a tourist attraction with clean, attractive areas to attract visitors and improve inhabitants' lives. **Wiliani et al.** investigated for cracks, scratches, and stains on solar panels, which limit energy efficiency. To identify damage patterns and improve solar panel maintenance, they employed the Texture Feature Extraction Method with statistical indicators (mean, variance, standard deviation, skewness, kurtosis, and entropy) on 4000 photos. **Herlina et al.** studied VRLA battery State-of-Charge (SoC) estimation in off-grid solar energy systems. The time capacity approach proved more accurate (0-12% inaccuracy) than Coulomb counting (30-38.4% inaccuracy) across different discharge rates, making it appropriate for remote monitoring and building reliable renewable energy systems. **Syaripuddin et al.** studied medium carbon steel microstructure and mechanical properties after heat treatment. Quenching samples in 5% NaCl media produced more homogenous martensite with the maximum hardness (762.4 HV) and lowest corrosion rate (76.04 mpy). To optimize cement clinker grinding, **Purwoko and Setyanto** investigated chemical grinding aids (GAs). GAs can boost cement quality and productivity by 17% and cut electricity use by 5%. In Networked Control Systems (NCS), **Al-Ghifari et al.** proposed an adaptive method for setting the integral gain of a Linear Quadratic Integral (LQI) controller to reduce random delays. Their Markov chain model combined current and expected delay states to reduce overshoot from 17.06% to 2.45% and settling time from 457.6 to 254.06 seconds, improving system performance. The Hazen formula was tested for permeability in sands from different geological settings by **Prihatiningsih et al.** The formula worked for clean, evenly graded sands with rounded to subrounded particles, but angular grains and broad gradation ranges caused differences, underlining the relevance of grain morphology. In their study, **Syaka et al.** examined the performance of an absorption refrigeration system for electric cars employing H_2O-LiBr as the working fluid. They observed that an ideal generator output temperature of 75°C results in a COP of 0.705 and that higher outlet temperatures generally improve performance. **Surahto et al**. studied a 6061 hollow aluminum prototype electric car chassis' structural performance. The H-type chassis model scored best in their simulations, with a von Mises stress of 36.03 MPa, a displacement of 4.28 mm, and a safety factor of 7.63, demonstrating structural safety and prototype suitability.

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*Corresponding Author