

DAFTAR PUSTAKA

- [1] I. Fadhlurrohman, I. Wijayanto, and R. Patmasari, “Analisis Sinyal Gelombang Otak Alpha, Beta dan Theta terhadap Kejujuran Mahasiswa Menggunakan Sinyal EEG 5 Kanal,” *e-Proceeding of Engineering*, vol. 5, no. 3, p. 4576, 2018.
- [2] R. Gilang, I. Wijayanto, and Y. Nur, “Analisis Kondisi Rileks saat Mendengarkan Alquran Berdasarkan Sinyal Delta Theta EEG,” *e-Proceeding of Engineering*, vol. 5, no. 2, 2018.
- [3] Z. Khakim and S. Kusrohmaniah, “Dasar - Dasar Electroencephalography (EEG) bagi Riset Psikologi,” *Buletin Psikologi*, vol. 29, no. 1, Universitas Gadjah Mada, p. 92, Jun. 28, 2021. doi: 10.22146/buletinpsikologi.52328.
- [4] I. Wijayanto, A. Rizal, and S. Hadiyoso, “Multilevel Wavelet Packet Entropy and Support Vector Machine for Epileptic EEG Classification,” in *4th International Conference on Science and Technology (ICST)*, Yogyakarta, Indonesia: IEEE, 2018.
- [5] F. Anis, S. Ningrum, I. Wijayanto, and S. Hadiyoso, “Identifikasi Biometrik Berdasarkan Sinyal EEG 4 Kanal dengan Stimuli Foto Menggunakan Metode Hjorth,” *e-Proceeding of Engineering*, vol. 5, no. 3, Dec. 2018.
- [6] A. M. Agusti, I. Wijayanto, and S. Hadiyoso, “Analisis Pemetaan Biometrik Menggunakan EEG Brainwave dan Stimuli Berupa Gambar,” *e-Proceeding of Engineering*, vol. 5, no. 3, Dec. 2018.
- [7] M. I. Abdurrahman, I. Wijayanto, and R. Patmasari, “Analisis Pengaruh Tingkat Kompleksitas Hafalan pada Sinyal Alfa dan Beta EEG,” *e-Proceeding of Engineering*, vol. 5, no. 3, Dec. 2018.
- [8] S. Sanei and Chambers. J.A., *EEG Signal Processing*. United Kingdom: John Wiley & Sons, Ltd, 2013.
- [9] M. Soufineyestani, D. Dowling, and A. Khan, “Electroencephalography (EEG) technology applications and available devices,” *Applied Sciences (Switzerland)*, vol. 10, no. 21, pp. 1–23, Nov. 2020, doi: 10.3390/app10217453.
- [10] S. Baillet, K. Friston, and R. Oostenveld, “Academic Software Applications for Electromagnetic Brain Mapping Using MEG and EEG,” *Computational Intelligence Corporation*, May 2011, doi: 10.1155/2011/972050.

- [11] F. Tadel, S. Baillet, J. C. Mosher, D. Pantazis, and R. M. Leahy, "Brainstorm: A user-friendly application for MEG/EEG analysis," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/879716.
- [12] D. Brunet, M. M. Murray, and C. M. Michel, "Spatiotemporal analysis of multichannel EEG: CARTOOL," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/813870.
- [13] A. Delorme *et al.*, "EEGLAB, SIFT, NFT, BCILAB, and ERICA: New tools for advanced EEG processing," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/130714.
- [14] P. Peyk, A. De Cesarei, and M. Junghöfer, "ElectroMagnetoEncephalography Software: Overview and Integration with Other EEG/MEG Toolboxes," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/861705.
- [15] R. Oostenveld, P. Fries, E. Maris, and J. M. Schoffelen, "FieldTrip: Open source software for advanced analysis of MEG, EEG, and invasive electrophysiological data," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/156869.
- [16] S. S. Dalal *et al.*, "MEG/EEG source reconstruction, statistical evaluation, and visualization with NUTMEG," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/758973.
- [17] V. Litvak *et al.*, "EEG and MEG data analysis in SPM8," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/852961.
- [18] T. Eichele, S. Rachakonda, B. Brakedal, R. Eikeland, and V. D. Calhoun, "EEGIFT: Group independent component analysis for event-related EEG data," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/129365.
- [19] C. R. Pernet, N. Chauveau, C. Gaspar, and G. A. Rousselet, "LIMO EEG: A toolbox for hierarchical linear modeling of electroencephalographic data," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/831409.
- [20] T. Koenig, M. Kottlow, M. Stein, and L. Melie-García, "Ragu: A free tool for the analysis of EEG and MEG event-related scalp field data using global randomization statistics," *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/938925.

- [21] A. Schögl, C. Vidaurre, and T. H. Sander, “BioSig: The free and open source software library for biomedical signal processing,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/935364.
- [22] W. Wang *et al.*, “Craniux: A LabVIEW-based modular software framework for brain-machine interface research,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/363565.
- [23] D. J. Weber, G. Sudre, L. Parkkonen, E. Bock, S. Baillet, and W. Wang, “RtMEG: A real-time software interface for magnetoencephalography,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/327953.
- [24] E. G. Christodoulou, V. Sakkalis, V. Tsiaras, and I. G. Tollis, “BrainNetVis: An open-access tool to effectively quantify and visualize brain networks,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/747290.
- [25] C. Phillips, Y. Leclercq, J. Schrouff, Q. Noirhomme, and P. Maquet, “fMRI artefact rejection and sleep scoring toolbox,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/598206.
- [26] C. Campi, A. Pascarella, A. Sorrentino, and M. Piana, “Highly automated dipole estimation (HADES),” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/982185.
- [27] A. Gramfort, T. Papadopoulo, E. Olivi, and M. Clerc, “Forward field computation with OpenMEEG,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/923703.
- [28] F. S. Bao, X. Liu, and C. Zhang, “PyEEG: An open source python module for EEG/MEG feature extraction,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/406391.
- [29] X. Tian, D. Poeppel, and D. E. Huber, “TopoToolbox: Using sensor topography to calculate psychologically meaningful measures from event-related EEG/MEG,” *Computational Intelligence and Neuroscience Journal*, vol. 2011, 2011, doi: 10.1155/2011/674605.
- [30] M. Fayaz, “The bibliometric analysis of EEGLAB software in the Web of Science indexed articles,” *Neuroscience Informatics*, vol. 4, no. 1, p. 100154, Mar. 2024, doi: 10.1016/j.neuri.2023.100154.

- [31] M. F. Aziz, Harlili, and D. P. Satya, "Designing Human-Computer Interaction for E-Learning using ISO 9241-210:2010 and Google Design Sprint," in *2020 7th International Conference on Advanced Informatics: Concepts, Theory and Applications, ICAICTA 2020*, Institute of Electrical and Electronics Engineers Inc., Sep. 2020. doi: 10.1109/ICAICTA49861.2020.9429074.
- [32] J. F. Andry, J. S. Suroso, and D. Y. Bernanda, "Improving quality of smes information system solution with ISO 9126," *Journal of Theoretical and Applied Information Technology (JATIT)*, vol. 31, no. 14, 2018, [Online]. Available: <https://www.researchgate.net/publication/326741327>
- [33] D. P. Nugroho and R. Sari, "Analisis UI/UX menggunakan Metode User Centered-Design Pada Aplikasi TSP Mobile," *Jurnal Infortech*, vol. 5, no. 2, 2023, [Online]. Available: <http://ejournal.bsi.ac.id/ejurnal/index.php/infortech>
- [34] S. Du Preez, K. Coleman, and H. Smuts, "Key user experience principles in designing computer interfaces for emotionally vulnerable user groups," in *Proceedings of the Society 5.0 Conference 2022*, 2022.
- [35] N. A. Nik Ahmad and N. S. Hasni, "ISO 9241-11 and SUS Measurement for Usability Assessment of Dropshipping Sales Management Application," in *2021 10th International Conference on Software and Computer Applications (ICSA 2021)*, Association for Computing Machinery, Feb. 2021, pp. 70–74. doi: 10.1145/3457784.3457794.
- [36] R. Alit, Sugiarto, and A. W. Hidayah, "Quality analysis of SIRUP on functionality and usability characteristics using ISO 9126," in *6th Information Technology International Seminar (ITIS 2020)*, Institute of Electrical and Electronics Engineers Inc., Oct. 2020, pp. 140–144. doi: 10.1109/ITIS50118.2020.9321042.
- [37] A. S. Jo and C. Ovalle, "Framework integrating RUP, Scrum and ISO 9126 to improve Quality during Software Construction in SMEs," in *2022 IEEE Engineering International Research Conference (EIRCON 2022)*, Institute of Electrical and Electronics Engineers Inc., 2022. doi: 10.1109/EIRCON56026.2022.9934100.
- [38] E. Kahan, M. Genero, and A. Oliveros, "Refining a design thinking-based requirements elicitation process: Insights from a focus group," *Science of Computer Programming Journal*, vol. 237, Oct. 2024, doi: 10.1016/j.scico.2024.103137.

- [39] L. Lin, Y. Dong, X. Chen, R. Shadiev, Y. Ma, and H. Zhang, “Exploring the impact of design thinking in information technology education: An empirical investigation,” *Thinking Skills and Creativity Journal*, vol. 51, Mar. 2024, doi: 10.1016/j.tsc.2023.101450.
- [40] A. Minet, D. Wentzel, S. Raff, and J. Garbas, “Design thinking in physical and virtual environments: Conceptual foundations, qualitative analysis, and practical implications,” *Technological Forecasting and Social Change Journal*, vol. 207, Oct. 2024, doi: 10.1016/j.techfore.2024.123596.
- [41] R. D. Fanani, I. K. A. G. Wiguna, A. P. S. Iskandar, and W. G. S. Parwita, “Innovative UI/UX Analysis of Cooperative Apps through Design Thinking,” *Jurnal Galaksi (Global Knowledge, Artificial Intelligent and Information System)*, vol. 1, no. 1, pp. 33–42, May 2024, doi: 10.70103/galaksi.v1i1.4.
- [42] W. S. L. Nasution and P. Nusa, “UI/UX Design Web-Based Learning Application Using Design Thinking Method,” *ARRUS Journal of Engineering and Technology*, vol. 1, no. 1, pp. 18–27, Aug. 2021, doi: 10.35877/jetech532.
- [43] D. Saputra and R. Kania, “Designing User Interface of a Mobile Learning Application by Using a Design Thinking Approach: A Case Study on UNI Course,” *Journal of Marketing Innovation (JMI)*, vol. 2, no. 2, Sep. 2022, doi: 10.35313/jmi.v2i2.36.
- [44] B. Suratno and J. Shafira, “Development of User Interface/User Experience using Design Thinking Approach for GMS Service Company,” *Journal of Information Systems and Informatics*, vol. 4, no. 2, 2022, [Online]. Available: <http://journal-isi.org/index.php/isi>
- [45] I. Wijayanto, “P7 Independent Component Analysis Dataset,” 2024.
- [46] I. Wijayanto, “P8 Independent Component Analysis Dataset,” 2024.
- [47] H. R. Saeidnia, M. Kozak, M. Ausloos, B. D. Lund, A. Ghorbi, and Z. Mohammadzadeh, “Evaluation of COVID-19 m-Health apps: An analysis of the methods of app usability testing during a global pandemic,” *Informatics in Medicine Unlocked Journal*, vol. 41, Jan. 2023, doi: 10.1016/j.imu.2023.101310.
- [48] W. H. Cheah, N. Mat Jusoh, M. M. T. Aung, A. Ab Ghani, and H. Mohd Amin Rebutan, “Mobile Technology in Medicine: Development and Validation of an Adapted System Usability Scale (SUS) Questionnaire and Modified Technology Acceptance Model

- (TAM) to Evaluate User Experience and Acceptability of a Mobile Application in MRI Safety Screening,” *Indian Journal of Radiology and Imaging*, vol. 33, no. 1, pp. 36–45, Jan. 2023, doi: 10.1055/s-0042-1758198.
- [49] D. Sapto Prasetyo and W. Silfianti, “Analisis Perbandingan Pengujian Manual dan Automation Testing pada Website E-commerce,” *JUIT (Jurnal Ilmiah Teknik)*, vol. 2, no. 2, 2023.
- [50] K. Spiliotopoulos, M. Rigou, and S. Sirmakessis, “A comparative study of skeuomorphic and flat design from a ux perspective,” *Multimodal Technologies and Interaction*, vol. 2, no. 2, Jun. 2018, doi: 10.3390/mti2020031.
- [51] A. Kelik Nugroho and B. Wijayanto, “Evaluation of the quality of academic information system Unsoed using ISO 9126 and mean opinion score (MOS),” *Jurnal Teknik Informatika (JUTIF)*, vol. 3, no. 3, pp. 771–779, 2022, doi: 10.20884/1.jutif.2022.3.3.366.
- [52] M. A. Bastari, D. Darmansah, and D. P. Rakhmadani, “Sistem Informasi Jasa Cuci Interior Rumah dan Mobil Menggunakan Metode User Acceptance Test,” *JURIKOM (Jurnal Riset Komputer)*, vol. 9, no. 2, p. 305, Apr. 2022, doi: 10.30865/jurikom.v9i2.3926.
- [53] F. Aljamaan *et al.*, “ChatGPT-3.5 System Usability Scale early assessment among Healthcare Workers: Horizons of adoption in medical practice,” *Heliyon*, vol. 10, no. 7, Apr. 2024, doi: 10.1016/j.heliyon.2024.e28962.
- [54] F. Galuh Sembodo, G. Fadila Fitriana, and N. A. Prasetyo, “Evaluasi Usability Website Shopee Menggunakan System Usability Scale (SUS),” *Journal of Applied Informatics and Computing (JAIC)*, vol. 5, no. 2, pp. 2548–6861, Dec. 2021, [Online]. Available: <http://jurnal.polibatam.ac.id/index.php/JAIC>
- [55] N. Isnain and H. Sulaiman, “Pengujian Usability Pada Aplikasi Auto Reply For Messenger Menggunakan SUS,” *EXPLORER, Journal of Computer Science and Information Technology*, vol. 1, no. 2, 2021.
- [56] I. Wahyudi and F. Alameka, “Blackbox Testing dan User Acceptance Testing terhadap Sistem Informasi SolusiMedsosku,” *Jurnal Teknosains Kodepena*, vol. 04, no. 1, pp. 1–9, Aug. 2023.

- [57] B. Chybowski, "Application to visualise and record EEG signals from Muse S headband," 2021, *Scotland, UK*. Accessed: Sep. 08, 2024. [Online]. Available: <https://github.com/bartlomiej-chybowski/qteeg>
- [58] R. Janapati, V. Dalal, and R. Sengupta, "Advances in modern EEG-BCI signal processing: A review," *Materials Today*, vol. 80, pp. 2563–2566, Jan. 2023, doi: 10.1016/j.matpr.2021.06.409.
- [59] A. Yudhana, A. Muslim, D. E. Wati, I. Puspitasari, A. Azhari, and M. M. Mardhia, "Human emotion recognition based on EEG signal using fast fourier transform and K-Nearest neighbor," *Advances in Science, Technology and Engineering Systems*, vol. 5, no. 6, pp. 1082–1088, 2020, doi: 10.25046/aj0506131.
- [60] H. Hindarto, A. Muntasa, and S. Sumarno, "Fourier transform for feature extraction of Electro Encephalo Graph (EEG) signals," in *Journal of Physics: Conference Series*, IOP Publishing Ltd, Dec. 2019. doi: 10.1088/1742-6596/1402/6/066027.
- [61] S. Suwanto, M. H. Bisri, D. C. R. Novitasari, and A. H. Asyhar, "Classification of EEG Signals using Fast Fourier Transform (FFT) and Adaptive Neuro Fuzzy Inference System (ANFIS)," *Jurnal Matematika (MANTIK)*, vol. 5, no. 1, pp. 35–44, May 2019, doi: 10.15642/mantik.2019.5.1.35-44.
- [62] M. Li and W. Chen, "FFT-based deep feature learning method for EEG classification," *Biomedical Signal Processing and Control Journal*, vol. 66, Apr. 2021, doi: 10.1016/j.bspc.2021.102492.
- [63] A. Riyani, A. Nurrochman, E. Sanjaya, P. Rizqiyah, and A. Junaidi, "Journal of Informatics, Information System, Software Engineering and Applications Mengidentifikasi Sinyal Suara Manusia Menggunakan Metode Fast Fourier Transform (Fft) Berbasis Matlab," vol. 1, no. 2, pp. 42–050, 2019, doi: 10.20895/INISTA.V1I2.
- [64] R. Vallat, "Compute the average bandpower of an EEG signal." [Online]. Available: <https://raphaelvallat.com/bandpower.html>
- [65] A. Bablani, D. R. Edla, V. Kuppili, and D. Ramesh, "A multi stage EEG data classification using k-means and feed forward neural network," *Clinical Epidemiology and Global Health Journal*, vol. 8, no. 3, pp. 718–724, Sep. 2020, doi: 10.1016/j.cegh.2020.01.008.

- [66] C. K. Pradhan, S. Rahaman, M. Abdul Alim Sheikh, A. Kole, and T. Maity, "EEG signal analysis using different clustering techniques," in *Advances in Intelligent Systems and Computing*, Springer Verlag, 2019, pp. 99–105. doi: 10.1007/978-981-13-1498-8_9.
- [67] T. Y. Wen and S. A. Mohd Aris, "Hybrid Approach of EEG Stress Level Classification Using K-Means Clustering and Support Vector Machine," *IEEE Access*, vol. 10, pp. 18370–18379, 2022, doi: 10.1109/ACCESS.2022.3148380.
- [68] A. Tharwat, "Independent component analysis: An introduction," *Applied Computing and Informatics Journal*, vol. 17, no. 2, pp. 222–249, 2018, doi: 10.1016/j.aci.2018.08.006.
- [69] T. Mwata-Velu *et al.*, "EEG-BCI Features Discrimination between Executed and Imagined Movements Based on FastICA, Hjorth Parameters, and SVM," *Mathematics*, vol. 11, no. 21, Nov. 2023, doi: 10.3390/math11214409.
- [70] C. A. Musluoglu and A. Bertrand, "Distributed Blind Source Separation based on FastICA," Oct. 2024, [Online]. Available: <http://arxiv.org/abs/2410.19112>
- [71] E. Martel *et al.*, "Implementation of the Principal Component Analysis onto high-performance computer facilities for hyperspectral dimensionality reduction: Results and comparisons," *Remote Sens (Basel)*, vol. 10, no. 6, Jun. 2018, doi: 10.3390/rs10060864.
- [72] C. A. Valentim, C. M. C. Inacio, and S. A. David, "Fractal methods and power spectral density as means to explore eeg patterns in patients undertaking mental tasks," *Fractal and Fractional*, vol. 5, no. 4, Dec. 2021, doi: 10.3390/fractalfract5040225.
- [73] M. Demuru, S. M. La Cava, S. M. Pani, and M. Fraschini, "A comparison between power spectral density and network metrics: An EEG study," *Biomedical Signal Processing and Control Journal*, vol. 57, Mar. 2020, doi: 10.1016/j.bspc.2019.101760.
- [74] A. Ameera, A. Saidatul, and Z. Ibrahim, "Analysis of EEG Spectrum Bands Using Power Spectral Density for Pleasure and Displeasure State," in *IOP Conference Series: Materials Science and Engineering*, Institute of Physics Publishing, Jun. 2019. doi: 10.1088/1757-899X/557/1/012030.
- [75] L. De Lauretis, "From monolithic architecture to microservices architecture," in *2019 IEEE 30th International Symposium on Software Reliability Engineering Workshops (ISSREW 2019)*, Institute of Electrical and Electronics Engineers Inc., Oct. 2019, pp. 93–96. doi: 10.1109/ISSREW.2019.00050.

- [76] G. Blinowski, A. Ojdowska, and A. Przybylek, “Monolithic vs. Microservice Architecture: A Performance and Scalability Evaluation,” *IEEE Access*, vol. 10, pp. 20357–20374, 2022, doi: 10.1109/ACCESS.2022.3152803.