

REFERENCE

- [1] N. Tokareva, S. Zyкова, and V. Talismanov, “The relationship of psychological, clinical and biological components in epilepsy,” *E3S Web Conf.*, vol. 217, p. 08006, 2020, doi: 10.1051/e3sconf/202021708006.
- [2] L. Carson *et al.*, “The association between early childhood onset epilepsy and attention-deficit hyperactivity disorder (ADHD) in 3237 children and adolescents with Autism Spectrum Disorder (ASD): a historical longitudinal cohort data linkage study,” *Eur. Child Adolesc. Psychiatry*, vol. 32, no. 11, pp. 2129–2138, Nov. 2023, doi: 10.1007/s00787-022-02041-3.
- [3] R. Mayor, S. Gunn, M. Reuber, and J. Simpson, “Experiences of stigma in people with epilepsy: A meta-synthesis of qualitative evidence,” *Seizure*, vol. 94, pp. 142–160, Jan. 2022, doi: 10.1016/j.seizure.2021.11.021.
- [4] M. Masum, “Integrated Machine Learning Approaches to Improve Classification performance and Feature Extraction Process for EEG Dataset”.
- [5] C. Daftari, J. Shah, and M. Shah, “Detection of epileptic seizure disorder using EEG signals,” in *Artificial Intelligence-Based Brain-Computer Interface*, Elsevier, 2022, pp. 163–188. doi: 10.1016/B978-0-323-91197-9.00006-0.
- [6] H. Rajaguru and S. Kumar Prabhakar, “Performance Analysis of Local Linear Embedding (LLE) and Hessian LLE with Hybrid ABC-PSO for Epilepsy Classification from EEG signals,” in *2018 International Conference on Inventive Research in Computing Applications (ICIRCA)*, Coimbatore: IEEE, Jul. 2018, pp. 1084–1088. doi: 10.1109/ICIRCA.2018.8596821.
- [7] Z. Aslan, “A Novel Computer-Aided Diagnostic System for Alzheimer’s Diagnosis Using Variational Mode Decomposition Method,” *Circuits Syst. Signal Process.*, vol. 43, no. 1, pp. 615–633, Jan. 2024, doi: 10.1007/s00034-023-02496-y.
- [8] S. Hadiyoso, E. M. Dewi, T. L. E. R. Mengko, and H. Zakaria, “Respiratory rate extraction based on plethysmographic wave analysis,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 830, no. 3, p. 032050, Apr. 2020, doi: 10.1088/1757-899X/830/3/032050.
- [9] M. Ravi Kumar and Y. Srinivasa Rao, “Epileptic seizures classification in EEG signal based on semantic features and variational mode decomposition,” *Clust. Comput.*, vol. 22, no. S6, pp. 13521–13531, Nov. 2019, doi: 10.1007/s10586-018-1995-4.

- [10] A. Sharmila, S. Madan, and K. Srivastava, "Epilepsy Detection Using DWT Based Hurst Exponent and SVM, K-NN Classifiers," *Serbian J. Exp. Clin. Res.*, vol. 19, no. 4, pp. 311–319, Dec. 2018, doi: 10.1515/sjecr-2017-0043.
- [11] Y. Wang, Z. Li, L. Feng, H. Bai, and C. Wang, "Hardware design of multiclass SVM classification for epilepsy and epileptic seizure detection," *IET Circuits Devices Syst.*, vol. 12, no. 1, pp. 108–115, Jan. 2018, doi: 10.1049/iet-cds.2017.0216.
- [12] N. N. Kulkarni and V. K. Bairagi, "Extracting Salient Features for EEG-based Diagnosis of Alzheimer's Disease Using Support Vector Machine Classifier," *IETE J. Res.*, vol. 63, no. 1, pp. 11–22, Jan. 2017, doi: 10.1080/03772063.2016.1241164.
- [13] H. Akbari, M. T. Sadiq, S. Siuly, Y. Li, and P. Wen, "Identification of normal and depression EEG signals in variational mode decomposition domain," *Health Inf. Sci. Syst.*, vol. 10, no. 1, p. 24, Sep. 2022, doi: 10.1007/s13755-022-00187-7.
- [14] Akshada Pradhan and Maharashtra Institute of Technology- World Peace University, "A Survey of Classification of EEG signals using EMD and VMD for Epileptic Seizure Detection," *Int. J. Eng. Res.*, vol. V9, no. 05, p. IJERTV9IS050414, May 2020, doi: 10.17577/IJERTV9IS050414.
- [15] B. Miao, J. Guan, L. Zhang, Q. Meng, and Y. Zhang, "Automated Epileptic Seizure Detection Method Based on the Multi-attribute EEG Feature Pool and mRMR Feature Selection Method," in *Computational Science – ICCS 2019*, vol. 11538, J. M. F. Rodrigues, P. J. S. Cardoso, J. Monteiro, R. Lam, V. V. Krzhizhanovskaya, M. H. Lees, J. J. Dongarra, and P. M. A. Sloot, Eds., in Lecture Notes in Computer Science, vol. 11538. , Cham: Springer International Publishing, 2019, pp. 45–59. doi: 10.1007/978-3-030-22744-9_4.
- [16] H. Jia, S. Wang, D. Zheng, X. Qu, and S. Fan, "Comparative study of motor imagery classification based on BP-NN and SVM," *J. Eng.*, vol. 2019, no. 23, pp. 8646–8649, Dec. 2019, doi: 10.1049/joe.2018.9075.
- [17] P. Das, M. S. Manikandan, and B. Ramkumar, "Detection of Epileptic Seizure Event in EEG Signals Using Variational Mode Decomposition and Mode Spectral Entropy," in *2018 IEEE 13th International Conference on Industrial and Information Systems (ICIIS)*, Rupnagar, India: IEEE, Dec. 2018, pp. 42–47. doi: 10.1109/ICIINFS.2018.8721426.
- [18] J. W. Britton *et al.*, "Electroencephalography (EEG): An Introductory Text and Atlas of Normal and Abnormal Findings in Adults, Children, and Infants." American

Epilepsy Society, Chicago, 2016. [Online]. Available: <http://europepmc.org/books/NBK390354>

[19] A. Chaddad, Y. Wu, R. Kateb, and A. Bouridane, "Electroencephalography Signal Processing: A Comprehensive Review and Analysis of Methods and Techniques," *Sensors*, vol. 23, no. 14, p. 6434, Jul. 2023, doi: 10.3390/s23146434.

[20] Y. Ardilla, H. Tjandrasa, and J. A. R. Hakim, "Deteksi Penyakit Epilepsi dengan Menggunakan Entropi Permutasi, K-means Clustering, dan Multilayer Perceptron".

[21] "Sindrom epilepsi adalah bentuk klasifikasi epilepsi berupa sekumpulan tanda dan gejala yang muncul bersamaan dalam suatu serangan epilepsi," no. 1, 2014.

[22] A. Zeiler, R. Faltermeier, I. R. Keck, A. M. Tome, C. G. Puntonet, and E. W. Lang, "Empirical Mode Decomposition - an introduction," in *The 2010 International Joint Conference on Neural Networks (IJCNN)*, Barcelona, Spain: IEEE, Jul. 2010, pp. 1–8. doi: 10.1109/ijcnn.2010.5596829.

[23] Z. Wu and N. E. Huang, "ENSEMBLE EMPIRICAL MODE DECOMPOSITION: A NOISE-ASSISTED DATA ANALYSIS METHOD," *Adv. Adapt. Data Anal.*, vol. 01, no. 01, pp. 1–41, Jan. 2009, doi: 10.1142/s1793536909000047.

[24] K. Dragomiretskiy and D. Zosso, "Variational Mode Decomposition," *IEEE Trans. Signal Process.*, vol. 62, no. 3, pp. 531–544, Feb. 2014, doi: 10.1109/TSP.2013.2288675.

[25] H. Yang, S. Liu, and H. Zhang, "Adaptive estimation of VMD modes number based on cross correlation coefficient," *J. Vibroengineering*, vol. 19, no. 2, pp. 1185–1196, Mar. 2017, doi: 10.21595/jve.2016.17236.

[26] H. Bhavsar and M. H. Panchal, "A Review on Support Vector Machine for Data Classification," vol. 1, no. 10.

[27] I. Wijayanto, A. Rizal, and S. Hadiyoso, "Multilevel Wavelet Packet Entropy and Support Vector Machine for Epileptic EEG Classification," in *2018 4th International Conference on Science and Technology (ICST)*, Yogyakarta: IEEE, Aug. 2018, pp. 1–6. doi: 10.1109/ICSTC.2018.8528634.

[28] R. Bhavsar, Y. Sun, N. Helian, N. Davey, D. Mayor, and T. Steffert, "The Correlation between EEG Signals as Measured in Different Positions on Scalp Varying

with Distance,” *Procedia Comput. Sci.*, vol. 123, pp. 92–97, 2018, doi: 10.1016/j.procs.2018.01.015.

[29] N. Alizadeh, S. Afrakhteh, and M. R. Mosavi, “Multi-Task EEG Signal Classification Using Correlation-Based IMF Selection and Multi-Class CSP,” *IEEE Access*, vol. 11, pp. 52712–52725, 2023, doi: 10.1109/ACCESS.2023.3274704.

[30] P. Swami, T. K. Gandhi, B. K. Panigrahi, M. Tripathi, and S. Anand, “A novel robust diagnostic model to detect seizures in electroencephalography,” *Expert Syst. Appl.*, vol. 56, pp. 116–130, Sep. 2016, doi: 10.1016/j.eswa.2016.02.040.

[31] R. G. Andrzejak, K. Lehnertz, F. Mormann, C. Rieke, P. David, and C. E. Elger, “Indications of nonlinear deterministic and finite-dimensional structures in time series of brain electrical activity: Dependence on recording region and brain state,” *Phys. Rev. E*, vol. 64, no. 6, p. 061907, Nov. 2001, doi: 10.1103/PhysRevE.64.061907.

[32] S. Wu, F. Feng, J. Zhu, C. Wu, and G. Zhang, “A Method for Determining Intrinsic Mode Function Number in Variational Mode Decomposition and Its Application to Bearing Vibration Signal Processing,” *Shock Vib.*, vol. 2020, pp. 1–16, May 2020, doi: 10.1155/2020/8304903.

[33] T. Zhang, “AR based quadratic feature extraction in the VMD domain for the automated seizure detection of EEG using random forest classifier”.

[34] N. Michielli, U. R. Acharya, and F. Molinari, “Cascaded LSTM recurrent neural network for automated sleep stage classification using single-channel EEG signals,” *Comput. Biol. Med.*, vol. 106, pp. 71–81, Mar. 2019, doi: 10.1016/j.combiomed.2019.01.013.

[35] P. H. Tonner and B. Bein, “Classic electroencephalographic parameters: Median frequency, spectral edge frequency etc,” *Best Pract. Res. Clin. Anaesthesiol.*, vol. 20, no. 1, pp. 147–159, Mar. 2006, doi: 10.1016/j.bpa.2005.08.008.

[36] B. S. Oken and K. H. Chiappa, “Short-term variability in EEG frequency analysis,” *Electroencephalogr. Clin. Neurophysiol.*, vol. 69, no. 3, pp. 191–198, Mar. 1988, doi: 10.1016/0013-4694(88)90128-9.

[37] J.-L. Riehl, “Analysis of the frequency/voltage ratio of the EEG in intracranial diseases,” *Electroencephalogr. Clin. Neurophysiol.*, vol. 21, no. 4, pp. 325–334, Oct. 1966, doi: 10.1016/0013-4694(66)90038-1.

- [38] F. A. Mousa, R. A. El-Khoribi, and M. E. Shoman, "A Novel Brain Computer Interface Based on Principle Component Analysis," *Procedia Comput. Sci.*, vol. 82, pp. 49–56, 2016, doi: 10.1016/j.procs.2016.04.008.
- [39] F. Lotte, "A Tutorial on EEG Signal-processing Techniques for Mental-state Recognition in Brain–Computer Interfaces," in *Guide to Brain-Computer Music Interfacing*, E. R. Miranda and J. Castet, Eds., London: Springer London, 2014, pp. 133–161. doi: 10.1007/978-1-4471-6584-2_7.
- [40] I. Belakhdar, W. Kaaniche, R. Djmel, and B. Ouni, "A comparison between ANN and SVM classifier for drowsiness detection based on single EEG channel," in *2016 2nd International Conference on Advanced Technologies for Signal and Image Processing (ATSIP)*, Monastir, Tunisia: IEEE, Mar. 2016, pp. 443–446. doi: 10.1109/atsip.2016.7523132.