References

[1] K. M. Smith, C. C. Machalaba, R. Seifman, Y. Feferholtz, and W. B. Karesh, "Infectious disease and economics: The case for considering multi-sectoral impacts," *One Health*, vol. 7, p. 100080, Jun. 2019, doi: 10.1016/j.onehlt.2018.100080.

[2] Y. Nie, X. Zhong, T. Lin, and W. Wang, "Pathogen diversity in meta-population networks," *Chaos Solitons Fractals*, vol. 166, p. 112909, Jan. 2023, doi: 10.1016/j.chaos.2022.112909.

[3] K. V. Chaitanya, "Structure and Organization of Virus Genomes," in *Genome and Genomics: From Archaea to Eukaryotes*, K. V. Chaitanya, Ed. Singapore: Springer, 2019, pp. 1–30. doi: 10.1007/978-981-15-0702-1_1.

[4] K. Koelle, M. A. Martin, R. Antia, B. Lopman, and N. E. Dean, "The changing epidemiology of SARS-CoV-2," *Science*, vol. 375, no. 6585, pp. 1116–1121, Mar. 2022, doi: 10.1126/science.abm4915.

[5] D. M. Lyons and A. S. Lauring, "Mutation and Epistasis in Influenza Virus Evolution," *Viruses*, vol. 10, no. 8, Art. no. 8, Aug. 2018, doi: 10.3390/v10080407.

[6] J. Zhao *et al.*, "Cell morphological analysis of SARS-CoV-2 infection by transmission electron microscopy," *J. Thorac. Dis.*, vol. 12, no. 8, pp. 4368–4373, Aug. 2020, doi: 10.21037/jtd-20-1368.

[7] H. Wen, J. M. Luna-Romera, J. C. Riquelme, C. Dwyer, and S. L. Y. Chang, "Statistically Representative Metrology of Nanoparticles via Unsupervised Machine Learning of TEM Images," *Nanomaterials*, vol. 11, no. 10, Art. no. 10, Oct. 2021, doi: 10.3390/nano11102706.

[8] Y. Ferdinand and W. F. A. Maki, "Broccoli leaf diseases classification using support vector machine with particle swarm optimization based on feature selection," *Int. J. Adv. Intell. Inform.*, vol. 8, no. 3, Art. no. 3, Nov. 2022, doi: 10.26555/ijain.v8i3.951.

[9] F. A. Chalik and W. F. Al Maki, "Classification of Dried Clove Flower Quality using Convolutional Neural Network," in *2021 International Conference on Data Science, Artificial Intelligence, and Business Analytics (DATABIA)*, Nov. 2021, pp. 40–45. doi: 10.1109/DATABIA53375.2021.9650199.

[10] D. M. Hibban and W. F. Al Maki, "Classification of Ornamental Betta Fish Using Convolutional Neural Network Method and Grabcut Segmentation," in *2021 International Conference on Data Science and Its Applications (ICoDSA)*, Oct. 2021, pp. 102–109. doi: 10.1109/ICoDSA53588.2021.9617213.

[11] A. Farhanah and W. F. Al Maki, "Hops Plants Disease Detection using Feature Selection based BPSO-SVM," in *2022 9th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI)*, Oct. 2022, pp. 389–393. doi: 10.23919/EECSI56542.2022.9946620.

[12] F. R. Siregar and W. F. Al Maki, "Hybrid Method for Flower Classification in High Intra-class Variation," in *2020 3rd International Seminar on Research of Information Technology and Intelligent Systems (ISRITI)*, Dec. 2020, pp. 73–78. doi: 10.1109/ISRITI51436.2020.9315379.

[13] X. Liao, G. Zhou, Z. Zhang, J. Lu, and J. Ma, "Tool wear state recognition based on GWO–SVM with feature selection of genetic algorithm," *Int. J. Adv. Manuf. Technol.*, vol. 104, no. 1, pp. 1051–1063, Sep. 2019, doi: 10.1007/s00170-019-03906-9.

[14] J. Cervantes, F. Garcia-Lamont, L. Rodríguez-Mazahua, and A. Lopez, "A comprehensive survey on support vector machine classification: Applications, challenges and trends," *Neurocomputing*, vol. 408, pp. 189–215, Sep. 2020, doi: 10.1016/j.neucom.2019.10.118.

[15] X. Ying, P. Xiaogang, W. Jiongqi, Z. Haiyin, and H. Yangyang, "Non-cooperative target clustering algorithm based on clonal selection," *J. Phys. Conf. Ser.*, vol. 1994, no. 1, p. 012020, Aug. 2021, doi: 10.1088/1742-6596/1994/1/012020.

[16] X. Yan, P. Li, K. Tang, L. Gao, and L. Wang, "Clonal selection based intelligent parameter inversion algorithm for prestack seismic data," *Inf. Sci.*, vol. 517, pp. 86–99, May 2020, doi: 10.1016/j.ins.2019.12.083.

[17] H. Moradmand, S. M. R. Aghamiri, and R. Ghaderi, "Impact of image preprocessing methods on reproducibility of radiomic features in multimodal magnetic resonance imaging in glioblastoma," *J. Appl. Clin. Med. Phys.*, vol. 21, no. 1, pp. 179–190, Jan. 2020, doi: 10.1002/acm2.12795.

[18] N. Fatima, "AI in Photography: Scrutinizing Implementation of Super-Resolution Techniques in Photo-Editors," in *2020 35th International Conference on Image and Vision Computing New Zealand (IVCNZ)*, Nov. 2020, pp. 1–6. doi: 10.1109/IVCNZ51579.2020.9290737.

[19] D. Singh and B. Singh, "Investigating the impact of data normalization on classification performance," *Appl. Soft Comput.*, vol. 97, p. 105524, Dec. 2020, doi: 10.1016/j.asoc.2019.105524.

[20] S. J. Devaraj, "Chapter 2 - Emerging Paradigms in Transform-Based Medical Image Compression for Telemedicine Environment," in *Telemedicine Technologies*, H. D. Jude and V. E. Balas, Eds. Academic Press, 2019, pp. 15–29. doi: 10.1016/B978-0-12-816948-3.00002-7.

[21] G. Sharma, K. Umapathy, and S. Krishnan, "Trends in audio signal feature extraction methods," *Appl. Acoust.*, vol. 158, p. 107020, Jan. 2020, doi: 10.1016/j.apacoust.2019.107020.

[22] M. Vafakhah and S. Janizadeh, "Chapter 6 - Application of artificial neural network and adaptive neuro-fuzzy inference system in streamflow forecasting," in *Advances in Streamflow Forecasting*, P. Sharma and D. Machiwal, Eds. Elsevier, 2021, pp. 171–191. doi: 10.1016/B978-0-12-820673-7.00002-0.

[23] L. Yang and Z. Xu, "Feature extraction by PCA and diagnosis of breast tumors using SVM with DE-based parameter tuning," *Int. J. Mach. Learn. Cybern.*, vol. 10, no. 3, pp. 591–601, Mar. 2019, doi: 10.1007/s13042-017-0741-1.

[24] A. Bosisio *et al.*, "A Method to Analyzing and Clustering Aggregate Customer Load Profiles Based on PCA," in *2020 5th International Conference on Green Technology and Sustainable Development (GTSD)*, Nov. 2020, pp. 41–47. doi: 10.1109/GTSD50082.2020.9303098.

[25] M. LADJAL, M. A. OUALI, and M. D. LASS, "optimization of SVM parameters with hybrid PCA-PSO methods for water quality monitoring," in *2020 International Conference on Electrical Engineering (ICEE)*, Sep. 2020, pp. 1–6. doi: 10.1109/ICEE49691.2020.9249881.

[26] A. Y. Hatata and A. Lafi, "Clonal Selection Algorithm for Optimum Sizing of WT/PV/FC Hybrid Renewable Power System," in *2018 1st International Conference on Computer Applications & Information Security (ICCAIS)*, Apr. 2018, pp. 1–7. doi: 10.1109/CAIS.2018.8441960.

[27] B. Çarklı Yavuz, N. Yurtay, and O. Ozkan, "Prediction of Protein Secondary Structure With Clonal Selection Algorithm and Multilayer Perceptron," *IEEE Access*, vol. 6, pp. 45256–45261, 2018, doi: 10.1109/ACCESS.2018.2864665.

[28] N. Xu, Y. Ding, L. Ren, and K. Hao, "Degeneration Recognizing Clonal Selection Algorithm for Multimodal Optimization," *IEEE Trans. Cybern.*, vol. 48, no. 3, pp. 848–861, Mar. 2018, doi: 10.1109/TCYB.2017.2657797.

[29] X. Chen, S. Xu, S. Li, H. He, Y. Han, and X. Qu, "Identification of architectural elements based on SVM with PCA: A case study of sandy braided river reservoir in the Lamadian Oilfield, Songliao Basin, NE China," *J. Pet. Sci. Eng.*, vol. 198, p. 108247, Mar. 2021, doi: 10.1016/j.petrol.2020.108247.

[30] N. Baygin, M. Baygin, and M. Karakose, "A SVM-PSO Classifier for Robot Motion in Environment with Obstacles," in *2019 International Artificial Intelligence and Data Processing Symposium (IDAP)*, Sep. 2019, pp. 1–5. doi: 10.1109/IDAP.2019.8875921.

[31] E. Wang, P. Yan, and J. Liu, "A Hybrid Chatter Detection Method Based on WPD, SSA, and SVM-PSO," *Shock Vib.*, vol. 2020, p. e7943807, Jun. 2020, doi: 10.1155/2020/7943807.

[32] I. Nurhidayat, B. Pimpunchat, S. Noeiaghdam, and U. Fernández-Gámiz, "Comparisons of SVM Kernels for Insurance Data Clustering," *Emerg. Sci. J.*, vol. 6, no. 4, Art. no. 4, May 2022, doi: 10.28991/ESJ-2022-06-04-014.

[33] P. T. Krishnan, A. N. Joseph Raj, P. Balasubramanian, and Y. Chen, "Schizophrenia detection using MultivariateEmpirical Mode Decomposition and entropy measures from multichannel EEG signal," *Biocybern. Biomed. Eng.*, vol. 40, no. 3, pp. 1124–1139, Jul. 2020, doi: 10.1016/j.bbe.2020.05.008.

[34] J. Yang, L. Sun, W. Xing, G. Feng, H. Bai, and J. Wang, "Hyperspectral prediction of sugarbeet seed germination based on gauss kernel SVM," *Spectrochim. Acta. A. Mol. Biomol. Spectrosc.*, vol. 253, p. 119585, May 2021, doi: 10.1016/j.saa.2021.119585.