

**Referensi**

- [1] Al-Nashash, H. (2000), 'Cardiac arrhythmia classification using neural networks', *Technology and Health Care* 8(6), 363–372.
- [2] Bansal, A. and Joshi, R. (2018), 'Portable out-of-hospital electrocardiography: A review of current technologies', *Journal of Arrhythmia* 34(2), 129–138.
- [3] Benjamin, E. J. et al. (2019), *Heart Disease and Stroke Statistics-2019 Update: A Report From the American Heart Association*, Vol. 139.
- [4] Bin, G., Shao, M., Bin, G., Huang, J., Zheng, D. and Wu, S. (2017), 'Detection of atrial fibrillation using decision tree ensemble', *Computing in Cardiology* 44, 1–4.
- [5] Chen, G., Hong, Z., Guo, Y. and Pang, C. (2019), 'A cascaded classifier for multi-lead ECG based on feature fusion', *Computer Methods and Programs in Biomedicine* 178, 135–143. URL: <https://doi.org/10.1016/j.cmpb.2019.06.021>
- [6] Chetan, A., Tripathy, R. K. and Dandapat, S. (2016), 'Cardiac arrhythmia classification from multilead ECG using multiscale non-linear analysis', 2015 IEEE UP Section Conference on Electrical Computer and Electronics, UPCON 2015.
- [7] Farhadi, J., Attarodi, G., Dabanloo, N. J., Mohandespoor, M. and Eslamizadeh, M. (2018), 'Classification of Atrial Fibrillation Using Stacked Auto Encoders Neural Networks', *Computing in Cardiology* 2018 September, 2018–2020.
- [8] Ge, H., Sun, K., Sun, L., Zhao, M. and Wu, C. (2019), 'A Selective Ensemble Learning Framework for ECG-Based Heartbeat Classification with Imbalanced Data', *Proceedings 2018 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2018* pp. 2753–2755.
- [9] Goodfellow, S. D., Goodwin, A., Greer, R., Laussen, P. C., Mazwi, M. and Eytan, D. (2017), 'Classification of atrial fibrillation using multidisciplinary features and gradient boosting', *Computing in Cardiology* 44, 1–4.
- [10] Hu, Y., Zhao, Y., Liu, J., Pang, J., Zhang, C. and Li, P. (2020), 'An effective frequency-domain feature of atrial fibrillation based on time–frequency analysis', *BMC Medical Informatics and Decision Making* 20(1), 1–11. URL: <https://doi.org/10.1186/s12911-020-01337-1>
- [11] Jeon, E., Chae, M., Han, S. and Lee, H. (2019), 'Arrhythmia Classification System Using Deep Neural Network', *International Conference on Ubiquitous and Future Networks, ICUFN 2019-July*, 111–114.
- [12] Kadam, V., Jadhav, S. and Yadav, S. (2019), 'Bagging based ensemble of Support Vector Machines with improved elitist GA-SVM features selection for cardiac arrhythmia classification', *International Journal of Hybrid Intelligent Systems* 16(1), 25–33.
- [13] Kaya, Y. (2018), 'Classification of PVC Beat in ECG Using Basic Temporal Features', *Balkan Journal of Electrical and Computer Engineering* 6(2), 10–14.
- [14] Kaya, Y. and Pehlivan, H. (2015), 'Classification of Premature Ventricular Contraction in ECG', *International Journal of Advanced Computer Science and Applications* 6(7), 34–40.
- [15] Kuncheva, L. I. (2003), 'That elusive diversity in classifier ensembles', *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 2652, 1126–1138.
- [16] Lee, S. H., Ko, H. C. and Yoon, Y. R. (2013), 'Classification of Ventricular arrhythmia using a support vector machine based on morphological features', *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS* 3(4), 5785–5788.
- [17] Luz, E. J. d. S., Schwartz, W. R., C'amara-Ch'avez, G. and Menotti, D. (2016), 'ECG-based heartbeat classification for arrhythmia detection: A survey', *Computer Methods and Programs in Biomedicine* 127, 144–164. URL: <http://dx.doi.org/10.1016/j.cmpb.2015.12.008>
- [18] Makowski, D., Pham, T., Lau, Z. J., Brammer, J. C., Lespinasse, F., Pham, H., Sch'olzel, C. and Chen, S. H. A. (2021), 'Neurokit2: A python toolbox for neurophysiological signal processing', *Behavior Research Methods*. URL: <https://doi.org/10.3758/s13428-020-01516-y>
- [19] Mathunjwa, B. M., Lin, Y. T., Lin, C. H., Abbod, M. F. and Shieh, J. S. (2021), 'ECG arrhythmia classification by using a recurrence plot and convolutional neural network', *Biomedical Signal Processing and Control* 64(February 2020), 102262. URL: <https://doi.org/10.1016/j.bspc.2020.102262>
- [20] Mehta, D. D., Nazir, N. T., Trohman, R. G. and Volgman, A. S. (2015), 'Single lead portable ECG devices: Perceptions and clinical accuracy compared to conventional cardiac monitoring', *Journal of Electrocardiology* 48(4), 710–716.
- [21] Moody, G. B. and Mark, R. G. (2001), 'The impact of the MIT-BIH arrhythmia database', *IEEE Engineering in Medicine and Biology Magazine* 20(3), 45–50.
- [22] Nguyen, Q. H., Do, T. T., Thoppan, A. M., Chong, C. F., Arya, I., Maddi, K. M., Pandey, S., Balakrishnan, V. K., Pham, H. N., Nguyen, B. P. and Chua, M. C. (2019), 'Effective arrhythmia detection using majority

- voting', Proceedings of 2019 International Conference on System Science and Engineering, ICSSE 2019 pp. 109–114.
- [23] Padmaja, B., Prasad, V. V. and Sunitha, K. V. (2020), 'A novel random split point procedure using extremely randomized (Extra) trees ensemble method for human activity recognition', EAI Endorsed Transactions on Pervasive Health and Technology 6(22), 1–10.
- [24] Pan, G., Xin, Z., Shi, S. and Jin, D. (2018), 'Arrhythmia classification based on wavelet transformation and random forests', Multimedia Tools and Applications 77(17), 21905–21922.
- [25] Peimankar, A. and Puthusserypady, S. (2018), 'Ensemble learning for detection of short episodes of atrial fibrillation', European Signal Processing Conference 2018-Sept(i), 66–70.
- [26] Sargolzaei, A., Faez, K. and Sargolzaei, S. (2009), 'A new robust wavelet based algorithm for baseline wandering cancellation in ECG signals', ICSIPA09 2009 IEEE International Conference on Signal and Image Processing Applications, Conference Proceedings pp. 33–38.
- [27] Spach, M. S. and Kootsey, J. M. (1983), 'The nature of electrical propagation in cardiac muscle', American Journal of Physiology Heart and Circulatory Physiology 13(1).
- [28] Sultana, N. and Kamatham, Y. (2016), 'MSVM-based classifier for cardiac arrhythmia detection', 2016 International Conference on Advances in Computing, Communications and Informatics, ICACCI 2016 pp. 1314–1318.
- [29] Yang, W., Si, Y., Wang, D. and Zhang, G. (2019), 'A novel approach for multi-lead ECG classification using DL-CCANet and TL-CCANet', Sensors (Switzerland) 19(14), 8–10.
- [30] Yingthawornsuk, T. and Tamsang, P. (2019), Cardiac arrhythmia classification using Hjorth Descriptors, Vol. 807, Springer International Publishing. URL: [http://dx.doi.org/10.1007/978-3-319-94703-7\\_9](http://dx.doi.org/10.1007/978-3-319-94703-7_9)
- [31] Zhang, X., Li, R., Liu, Y., Gao, S., Zhang, H., Shen, S. and Wang, Z. (2018), 'Classification of Arrhythmia Based on Extreme Learning Machine', Proceedings 2018 10th International Conference on Intelligent Human-Machine Systems and Cybernetics, IHMSC 2018 2, 123–126.

