

DAFTAR PUSTAKA

- [1] S. Khalifa, M. Hassan and A. Seneviratne, "Pervasive Self-powered Human Activity Recognition without the Accelerometer," *2015 IEEE International Conference on Pervasive Computing and Communications (PerCom)*, pp. 80-86, 02 July 2015.
- [2] I. Chatzigiannakis, B. D. Ruyter and I. Mavrommati, *Ambient Intelligence*, Italy, Rome: Springer, 2019.
- [3] O. Kanoun and N. Derbel, *Advanced System for Biomedical Application*, Springer Charm, 2021, pp. XIV, 286.
- [4] Y. Chen and Y. Xue, "A Deep Learning Approach to Human Activity Recognition Based on Single Accelerometer," *2015 IEEE International Conference on Systems, Man, and Cybernetics*, pp. 1488-1492, 14 January 2016.
- [5] F. Aziz, "Klasifikasi Aktivitas Manusia menggunakan metode Ensemble Stacking berbasis Smartphone," *Journal of System and Computer Engineering (JSCE)*, vol. 2, no. Vol 2 No 1 (2021): JSCE: JANUARI 2021, pp. 106-111, 25 January 2021.
- [6] X. Su, H. Tong and P. Ji, "Activity recognition with smartphone sensors," *Tsinghua Science and Technology*, vol. 19, no. 3, juni 2014, pp. 235-249, 18 Juni 2014.
- [7] A. D. Ghio, A. Oneto, L. L. Parra, F. X. R. Ortiz and J. Luis, "Energy efficient smartphone-based activity recognition using fixed-point arithmetic," *Journal of Universal Computer Science*, vol. 19, no. vol. 19, no. 9 (2013), pp. 1295-1314, 2013.
- [8] R. Vincent, A. Wagadre, A. K. Sivaraman and M. Rahesh, "Human Activity Recognition Using LSTM/BiLSTM," *International Journal of Advanced Science and Technology*, vol. 29, no. No.4, pp. 7468-7474, 2020.
- [9] A. Wang, G. Chen, J. Yang, S. Zhao and C. Y. Chang, "A Comparative Study on Human Activity Recognition Using Inertial Sensors in a Smartphone," *IEEE Sensors Journal*, vol. 16, no. No.11, pp. 4566-4578, 23

March 2016.

- [10] A. Wang, S. Zhao, C. Xheng, J. Yang, G. Chen and C. Y. Chang, "Activities of Daily Living Recognition With Binary Environment Sensors Using Deep Learning: A Comparative Study," *IEEE Sensors Journal*, vol. 21, no. 4, pp. 5423-5433, 15 Februari 2021.
- [11] s. Wan, L. Qi, X. Xu, C. Tong and Z. Gu, "Deep Learning Models for Real-time Human Activity Recognition with Smartphones," *Mobile Networks and Applications*, vol. 25, pp. 743-755, 2020.
- [12] W. S. Lima, E. Souto, K. El-Khatib and R. Jalali, "Human Activity Recognition Using Inertial Sensors in a Smartphone: An Overview," *Sensors*, vol. 19, no. 14, p. 3213, 27 April 2019.
- [13] J. L. Ortiz, A. Ghio, D. Anguita, X. Parra, J. Cabestany and A. Catala, "Human Activity and Motion Disorder Recognition: Towards Smarter Interactive Cognitive Environments," *ESANN*, 24-26 April 2013.
- [14] T. Plötz and Y. Guan, "Deep Learning for Human Activity Recognition in Mobile Computing," vol. 51, no. 5, pp. 50-59, 24 May 2018.
- [15] A. D. Ghio, A. Oneto, L. L. Parra, F. Xavier, R. Oritz and J. Luis, "Energy efficient smartphone-based activity recognition using fixed-point arithmetic," vol. 19, no. 9, pp. 1295-1314, 2013.
- [16] A. Bayat, M. Pomlun and D. A. Tran, "A Study on Human Activity Recognition Using Accelerometer Data from Smartphones," *Procedia Computer Science*, vol. 34, pp. 450-457, 2014.
- [17] S. Mekruksavanich and A. Jitpattanakul, "LSTM Networks Using Smartphone Data for Sensor-Based Human Activity Recognition in Smart Homes," *Sensors*, vol. 21, no. 5, p. 1636, 5 Februari 2021.
- [18] L. Wang and R. Liu, "Human Activity Recognition Based on Wearable Sensor Using Hierarchical Deep LSTM Networks," *Circuits, Systems, and Signal Processing*, vol. 39, pp. 837-856, 2020.
- [19] A. Jain and V. Kanhangad, "Human Activity Classification in Smartphones Using Accelerometer and Gyroscope Sensors," *Sensors Journal*, vol. 18, no.

- 3, pp. 1167-1177, 11 December 2017.
- [20] S. Wan, L. Qi, X. Xu, C. Tong and Z. Gu, "Deep Learning Models for Real-time Human Activity Recognition with Smartphones," *Mobile Networks and Application*, vol. 25, no. 2, pp. 743-755, 2020.
- [21] S. K. Challa, A. Kumar and B. V. Semwal, "A multibranch CNN-BiLSTM model for human activity recognition using wearable sensor data," *The Visual Computer*, pp. 1-15, 20 August 2021.
- [22] N. Dua, S. N. Singh and V. B. Semwal, "Multi-input CNN-GRU based human activity recognition using wearable sensors," *Computing*, vol. 103, no. 7, pp. 1461-1478, 2021.
- [23] D. Mukherjee, R. Mondal, P. K. Singh, R. Sarkar and D. Bhattacharjee, "EnsemConvNet: a deep learning approach for human activity recognition using smartphone sensors for healthcare applications," *Multimedia Tools and Applications*, vol. 79, no. 41, pp. 31663-31690, 2020.
- [24] A. D. Ghio, A. Oneto, L. P. Perez, X. R. Ortiz and J. Luis, "A public domain dataset for human activity recognition using smartphones," *Proceedings of the 21th International European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning*, pp. 437-442, 2013.
- [25] Y. LeCun, Y. Bengio and G. Hinton, "Deep learning," *Nature*, vol. 521, no. 7553, pp. 436-444, 2015.
- [26] M. Rizki, S. Basuki and Azhar Yufiz, "Implementasi Deep Learning Menggunakan Arsitektur Long Short Term Memory(LSTM) Untuk Prediksi Curah Hujan Kota Malang," *Jurnal Repositor*, vol. 2, no. 3, pp. 331-338, 2020.
- [27] M. Abadi, P. Barham, J. Chen, Z. Chen, A. Davis, J. Dean, M. Devin, S. Ghemawat, G. Irving, M. Isard, M. Kudlur, J. Levenberg, R. Monga, S. Moore, D. G. Murray, B. Steiner, P. Tucker, V. Vasudevan, P. Warden, M. Wicke, Y. Yu, X. Zheng and G. Brain, "TensorFlow: A System for Large-Scale Machine Learning," *In 12th USENIX symposium on operating systems design and implementation*, vol. OSDI 16, pp. 265-283, 2016.
- [28] A. A. Rizal and S. Soraya, "Multi Time Steps Prediction dengan Recurrent

- Neural Network Long Short Term Memory," *MATRIK : Jurnal Manajemen, Teknik Informatika dan Rekayasa Komputer*, vol. 18, no. 1, pp. 115-124, 2018.
- [29] I. Artyani, "Simulasi metode convolutional neural network dan long short-term memory untuk generate image captioning pada gambar lalu lintas kendaraan berbahasa Indonesia," *Bachelor's thesis, Fakultas Sains dan Teknologi Universitas Islam Negeri Syarif Hidayatullah Jakarta*, 2019.
- [30] T. "Recurrent Neural Network (RNN) : Pengertian, Cara Kerja, dan Penerapannya," 24 July 2022.
- [31] K. Xia, J. Huang and H. Wang, "LSTM-CNN Architecture for Human Activity Recognition," *IEEE Access*, vol. 8, pp. 56855-56866, 2020.
- [32] T. Zebin, M. Sperrin, N. Peek and A. J. Casson, "Human activity recognition from inertial sensor time-series using batch normalized deep LSTM recurrent networks," *In 2018 40th annual international conference of the IEEE engineering in medicine and biology society*, pp. 1-4, July 2018.
- [33] Y. Zhao, R. Yang, G. Chevalier, X. Xu and Z. Zhang, "Deep Residual Bidirectional LSTM for Human Activity Recognition Using Wearable Sensors," *Mathematical Problems in Engineering*, vol. 2018, 30 December 2018.
- [34] V. Ghate and S. Hemalatha, "Hybrid deep learning approaches for smartphone sensor-based human activity recognition," *Multimedia Tools and Applications*, vol. 80, no. 28, p. 35585–35604, 2021.
- [35] W.-H. Chen, C. A. B. Baca and C.-H. Tou, "LSTM-RNNs combined with scene information for human activity recognition," *in 2017 IEEE 19th International Conference on e-Health Networking, Applications and Services (Healthcom)*, pp. 1-6, 12-15 October 2017.
- [36] F. Alharbi, L. Ouarbya and J. A. Ward, "Synthetic Sensor Data for Human Activity Recognition," *in 2020 International Joint Conference on Neural Networks (IJCNN)*, pp. 1-9, 24 July 2020.
- [37] S. Gupta, "Deep learning based human activity recognition (HAR) using wearable sensor data," *International Journal of Information Management Data Insight*, vol. 1, no. 2, p. 100046, 2021.

- [38] T. Mahmud, S. S. Akash, W.-P. Zhu and M. O. Ahmad, "Human Activity Recognition From Multi-modal Wearable Sensor Data Using Deep Multi-stage LSTM Architecture Based on Temporal Feature Aggregation," in *2020 IEEE 63rd International Midwest Symposium on Circuits and Systems (MWSCAS)*, pp. 249-252, 12 August 2020.
- [39] C. Laurent, G. Pereyra, P. Brakel, Y. Zhang and Y. Bengio, "Batch normalized recurrent neural networks," in *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 2657-2661, 2016.
- [40] A. Jordao, A. C. Nazare Jr., J. Sena and W. R. Schwartz, "Human Activity Recognition Based on Wearable Sensor Data: A Standardization of the State-of-the-Art," *arXiv Preprint arXiv: 1806.05226*, 2018.
- [41] J. Heikenfeld, A. Jajack, J. Rogers, P. Gutruf, L. Tian, T. Pan, R. Li, M. Khine, J. Kim, J. Wang and J. Kim, "Wearable sensors: modalities, challenges, and prospects," *Lab on a chip*, vol. 18, no. 2, pp. 217-248, 2018.
- [42] S. Mekruksavanich, N. Hnoohom and A. Jitpattanakul, "Smartwatch-based sitting detection with human activity recognition for office workers syndrome," in *2018 International ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunications Engineering (ECTI-NCON)*, pp. 160-164, 2018.
- [43] N. Rochmawati, H. B. Hidayati, Y. Yamasari, H. P. A. Tjahyaningtjas, W. Yustanti and A. Prihanto, "Analisa Learning Rate dan Batch Size pada Klasifikasi Covid Menggunakan Deep Learning dengan Optimizer Adam," *Journal Information Engineering and Education Technology*, vol. 5, no. 2, pp. 44-48, 2021.
- [44] O. N. Putri, "Implementasi Metode CNN dalam Klasifikasi Gambar Jamur pada Analisis Image Processing (Studi Kasus: Gambar Jamur dengan Genus Agaricus dan Amanita)," 16 Mei 2020.
- [45] V. B. Kusnandar, "Kementrian Dalam Negeri (Kemendagri)," 30 05 2022. [Online]. Available: <https://databoks.katadata.co.id/datapublish/2022/05/30/ada-30-juta->

penduduk-lansia-di-indonesia-pada-2021.

- [46] B. Humas, "Kemensos Dorong Aksesibilitas Informasi ramah Penyandang Disabilitas," 26 Oktober 2020. [Online]. Available: <https://kemensos.go.id/kemensos-dorong-aksesibilitas-informasi-ramah-penyandang-disabilitas>.
- [47] N. R. Imanuel, "Mendeteksi Jenis Burung Berdasarkan Gambar Menggunakan Deep Learning. Undergraduate thesis, Universitas Dinamika.," *Repositori Universitas Dinamika*, 2020.
- [48] L. R. Ambardini, "AKTIVITAS FISIK PADA LANJUT USIA," *Yogyakarta: UNY*, 2009.
- [49] P. Patrica and P. Griffin, "Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik Ed. 4," vol. 1, no. 4, 2010.
- [50] F. Zhafran, N. C. Basjaruddin and E. Rakhman, "ALAT BANTU SENAM REHABILITASI MANDIRI UNTUK LANSIA MENGGUNAKAN METODE EUCLIDEAN DISTANCE," *In Prosiding industrial research Workshop and National Seminar*, vol. 9, pp. 852-861, 2018.
- [51] J. Sun, Y. Fu, S. Li, J. He, C. Xu and L. Tan, "Sequential Human Activity Recognition Based on Deep Convolutional Network and Extreme Learning Machine Using Wearable Sensors," *Journal Of Sensors*, 2018.
- [52] A. Ignatov, "Real-time human activity recognition from accelerometer data using Convolutional Neural Networks," *Applied Soft Computing*, vol. 62, pp. 915-922, January 2018.
- [53] I. Digmi, "Memahami Epoch Batch Size Dan Iteration," 25 Januari 2018. [Online]. Available: <https://imam.digmi.id/post/memahami-epoch-batch-size-dan-iteration/>.
- [54] Atap, "Seluk-Beluk Sistem Gerak Pada Manusia," 2021. [Online]. Available: <https://www.gramedia.com/literasi/sistem-gerak-manusia/>.