DAFTAR PUSTAKA

Alfita, R. *et al.* (2022) 'Rancang Bangun Alat Theraphy Infrared Berbasis STM 32 Untuk Deteksi Nyeri Otot', *Jurnal Teknologi Elektro*, 13(1), p. 35. Available at: https://doi.org/10.22441/jte.2022.v13i1.007.

Aljebory, K.M., Jwmah, Y.M. and Mohammed, T.S. (2024) 'Classification of EMG Signals: Using DWT Features and ANN Classifier', *IAENG International Journal of Computer Science*, 51(1), pp. 23–31.

Arianto, E. and Bernardinus Sri Widodo (2022) 'Rancang Bangun Sistem Terapi Infrared Otomatis Untuk Terapi Far-Infrared Pada Spinal Cord', *J-Innovation*, 11(1), pp. 12–16. Available at: https://doi.org/10.55600/jipa.v11i1.127.

Babiuch, M., Foltýnek, P. and Smutný, P. (2019) 'Using the ESP32 Microcontroller for Data Processing', *2019 20th International Carpathian Control Conference (ICCC)*, pp. 1–6. Available at: https://doi.org/10.1109/CarpathianCC.2019.8765944.

Boonyakitanont, P. *et al.* (2020) 'A review of feature extraction and performance evaluation in epileptic seizure detection using EEG', *Biomedical Signal Processing and Control*, 57. Available at: https://doi.org/10.1016/j.bspc.2019.101702.

Daffa, A.Z., Widasari, E.R. and Syauqy, D. (2023) 'Analisis Perbandingan Metode Ekstraksi Fitur Mean Absolute Value, Root Mean Square, dan Variance untuk Deteksi Kelelahan Otot Biceps Brachii', *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 7(7), pp. 3434–3440. Available at: http://j-ptiik.ub.ac.id.

Ebied, A. (2019) 'Biceps Brachii Muscle Fatigue Assessment Through EMG Median Frequency Analysis', *The International Conference on Electrical Engineering*, 9(9th), pp. 1–8. Available at: https://doi.org/10.21608/iceeng.2014.30468.

Ertl, P., Kruse, A. and Tilp, M. (2019) 'Detecting fatigue thresholds from electromyographic signals: A systematic review on approaches and methodologies', *Journal of Electromyography and Kinesiology*, 30, pp. 216–230. Available at: https://doi.org/10.1016/j.jelekin.2016.08.002.

Hamadi, S.H.K. *et al.* (2019) 'Evaluation of denoising performance indices for noisy partial discharge signal based on DWT technique', *IEEE Student Conference on Research and Development: Inspiring Technology for Humanity, SCOReD - Proceedings*, 2019-Janua, pp. 392–397. Available at: https://doi.org/10.1109/SCORED.2017.8305358.

Harahap, H.S. (2024) 'Implementasi Phyton Dalam Matematika', *Mathematical and Data Analytics*, 1(1), pp. 1–8.

Hwang, H.J. *et al.* (2020) 'Prediction of biceps muscle fatigue and force using electromyography signal analysis for repeated isokinetic dumbbell curl exercise', *Journal of Mechanical Science and Technology*, 30(11), pp. 5329–5336. Available at: https://doi.org/10.1007/s12206-016-1053-1.

Kahl, L. and Hofmann, U.G. (2019) 'Comparison of algorithms to quantify muscle fatigue in upper limb muscles based on sEMG signals', *Medical Engineering and Physics*, 38(11), pp. 1260–1269. Available at: https://doi.org/10.1016/j.medengphy.2016.09.009.

Karthick, P.A. and Ramakrishnan, S. (2019) 'Muscle fatigue analysis using surface EMG signals and time-frequency based medium-to-low band power ratio', *Electronics Letters*, 52(3), pp. 185–186. Available at: https://doi.org/10.1049/el.2015.3460.

Kristomo, D. and Kusjani, A. (2022) 'Perbandingan Mother Wavelet Untuk Ekstraksi Ciri Isyarat Tutur', *JIKO (Jurnal Informatika dan Komputer)*, 6(2), p. 133. Available at: https://doi.org/10.26798/jiko.v6i2.554.

Kumar, D.K., Pah, N.D. and Bradley, A. (2020) 'Wavelet Analysis of Surface Electromyography to Determine Muscle Fatigue', *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 11(4), pp. 400–406. Available at: https://doi.org/10.1109/TNSRE.2003.819901.

Lestari Sudirman, P. *et al.* (2023) 'Hubungan Sikap Kerja Ergonomi Terhadap Kelelahan Otot Tangan Pada Tindakan Restorasi Resin Komposit Gigi Anterior Oleh Mahasiswa Profesi Kedokteran Gigi', *Dental Health Journal*, 10(1), pp. 1–8. Available at: https://doi.org/10.33992/jkg.v7i1.

Lin, C.-L. *et al.* (2024) 'Comparative Efficacy of Various Exercise Therapies and Combined Treatments on Inflammatory Biomarkers and Morphological Measures

of Skeletal Muscle among Older Adults with Knee Osteoarthritis: A Network Meta-Analysis', *Biomedicines*, 12(7), p. 1524. Available at: https://doi.org/10.3390/biomedicines12071524.

M., G.J. *et al.* (2019) 'Comparative Analysis of Wavelet-based Feature Extraction for Intramuscular EMG Signal Decomposition', *J Biomed Phys Eng*, 7(4).

Ma, L. *et al.* (2023) 'An Improved Feature Extraction Method for Surface Electromyography Based on Muscle Activity Regions', *IEEE Access*, 11(June), pp. 68410–68420. Available at: https://doi.org/10.1109/ACCESS.2023.3291108.

Majid, M.S.H. *et al.* (2019) 'Determining Acceptable Range of Surface Electromyogram Electrode Placement Variation for Deltoid Muscle Using Euclidean Distance Function', *2019 International Conference on Computational Approach in Smart Systems Design and Applications, ICASSDA 2019*, pp. 1–5. Available at: https://doi.org/10.1109/ICASSDA.2018.8477631.

Marco, G., Alberto, B. and Vieira, T.M. (2019) 'Surface EMG and muscle fatigue: Multi-channel approaches to the study of myoelectric manifestations of muscle fatigue', *Physiological Measurement*, 38(5), pp. R27–R60. Available at: https://doi.org/10.1088/1361-6579/aa60b9.

Moslhi, A.M., Aly, H.H. and ElMessiery, M. (2024) 'The Impact of Feature Extraction on Classification Accuracy Examined by Employing a Signal Transformer to Classify Hand Gestures Using Surface Electromyography Signals', *Sensors*, 24(4). Available at: https://doi.org/10.3390/s24041259.

Mustiadi, I. (2019) 'Klasifikasi sinyal EMG berbasis jaringan syaraf tiruan dan discrete wavelet transform', *Teknoin*, 23(3), pp. 223–240. Available at: https://doi.org/10.20885/teknoin.vol23.iss3.art4.

Nugraha, A.A. and Widasari, E.R. (2020) 'Sistem Pendeteksi Kelelahan Otot pada Biceps Brachii Menggunakan Fitur Root Mean Square dan Klasifikasi Random Forest', *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 1(1), pp. 1–11.

Otálora, S. *et al.* (2023) 'Data-Driven Approach for Upper Limb Fatigue Estimation Based on Wearable Sensors', *Sensors*, 23(22), pp. 1–23. Available at: https://doi.org/10.3390/s23229291.

Phinyomark, A., Limsakul, C. and Phukpattaranont, P. (2019) 'Application of

wavelet analysis in EMG feature extraction for pattern classification', *Measurement Science Review*, 11(2), pp. 45–52. Available at: https://doi.org/10.2478/v10048-011-0009-y.

Podrug, E. and Subasi, A. (2019) 'Surface EMG pattern recognition by using DWT feature extraction and SVM classifier', *1st Conference of Medical and Biological Engineering in Bosnia and Herzegovina*, (March), pp. 1–3. Available at: https://www.researchgate.net/publication/274638065_Surface_EMG_pattern_recognition_by_using_DWT_feature_extraction_and_SVM_classifier.

Pratiwi, I. (2019) 'Letak Elektroda Elektromiografi pada Upper Extermity Muscle', *Prosiding Seminar Nasional TEKNOIN 2019*, (January 2019), pp. 10–27.

Qassim, H.M. *et al.* (2022) 'Fatigue Using Surface Electromyography and a Double-Step Binary Classifier'.

Raharjo, A.B., Fatukhurrozi, B. and Nawawi, I. (2024) 'ANALISIS SINYAL ELECTROMYOGRAPHY (EMG) PADA OTOT BICEPS BRACHII UNTUK MENDETEKSI KELELAHAN OTOT DENGAN METODE MEDIAN FREKUENSI', *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 8(7).

Rianti, E.D.D. (2022) 'Pemanfaatan Sinar Infra Merah Terhadap Kesehatan Manusia', *Jurnal Ilmiah Kedokteran Wijaya Kusuma 2*, pp. 1–12.

Ruswiansari, M., Novianti, A. and Wirawan, W. (2019) 'Implementasi Discrete Wavelet Transform (Dwt) Dan Singular Value Decomposition (Svd) Pada Image Watermarking', *Jurnal Elektro dan Telekomunikasi Terapan*, 3(1), pp. 249–259. Available at: https://doi.org/10.25124/jett.v3i1.130.

Shabrina, H. *et al.* (2024) 'Analisis Efek Aliasing Pada Sinyal Audio Dengan Variasi Frekuensi Sampling Pada Lagu "Terhebat"', *ELECTRA : Electrical Engineering Articles*, 5(1), p. 1. Available at: https://doi.org/10.25273/ELECTRA.V5I1.20114.

Song, B. and Sanborn, B. (2021) 'Energy analyses in Kolsky bar experiments', *Advances in Experimental Impact Mechanics*, pp. 315–344. Available at: https://doi.org/10.1016/B978-0-12-823325-2.00006-6.

Subasi, A. *et al.* (2019) 'Automated EMG signal classification for diagnosis of neuromuscular disorders using DWT and bagging', *Procedia Computer Science*,

140, pp. 230–237. Available at: https://doi.org/10.1016/j.procs.2018.10.333.

Suprapto, S.S. *et al.* (2023) 'Gym training muscle fatigue monitoring using EMG myoware and arduino with envelope and sliding window methods', *International Journal of Reconfigurable and Embedded Systems*, 12(3), pp. 345–350. Available at: https://doi.org/10.11591/ijres.v12.i3.pp345-350.

Suwarni, A., Aryani, A. and Wulansari, A. (2024) 'Intervensi Keperawatan Fisioterapi Sinar Infrared Dapat Menurunkan Skala Disabilitas Aktifitas Sehari-Hari Pada Pasien Low Back Pain Myogenik', *Jurnal Wacana Kesehatan*, 9(1). Available at: https://doi.org/10.52822/jwk.v9i1.556.

Too, J. *et al.* (2019) 'A detail study of wavelet families for EMG pattern recognition', *International Journal of Electrical and Computer Engineering*, 8(6), pp. 4221–4229. Available at: https://doi.org/10.11591/ijece.v8i6.pp4221-4229.

Tornero-Aguilera, J.F. *et al.* (2022) 'Central and Peripheral Fatigue in Physical Exercise Explained: A Narrative Review', *International Journal of Environmental Research and Public Health*, 19(7). Available at: https://doi.org/10.3390/ijerph19073909.

Triwiyanto *et al.* (2019) 'DWT analysis of sEMG for muscle fatigue assessment of dynamic motion flexion-extension of elbow joint', *Proceedings of 8th International Conference on Information Technology and Electrical Engineering: Empowering Technology for Better Future, ICITEE 2016* [Preprint]. Available at: https://doi.org/10.1109/ICITEED.2016.7863300.

Untari, I., Prasojo, I. and Sarifah, S. (2024) 'Differences in the Effectiveness of Infrared Therapy for Reducing Musculoskeletal Pain in the Elderly', *Bangladesh Journal of Medical Science*, 23(1), pp. 108–114. Available at: https://doi.org/10.3329/bjms.v23i1.70695.

Wang, J., Sun, Y. and Sun, S. (2020) 'Recognition of Muscle Fatigue Status Based on Improved Wavelet Threshold and CNN-SVM', *IEEE Access*, 8, pp. 207914–207922. Available at: https://doi.org/10.1109/ACCESS.2020.3038422.

Widya, U. and Klaten, D. (2020) 'Pengaruh Infra Red dengan Massage Fisioterapi terhadap Tingkat Stres Mahasiswa yang Sedang Mengerjakan Tugas Akhir', *Medika Respati : Jurnal Ilmiah Kesehatan*, 15(3), pp. 167–176.

Yousif, H.A. *et al.* (2019) 'Assessment of Muscles Fatigue Based on Surface EMG

Signals Using Machine Learning and Statistical Approaches : A Review Assessment of Muscles Fatigue Based on Surface EMG Signals Using Machine Learning and Statistical Approaches ':, *5th International Conference on Man Machine Systems* [Preprint]. Available at: https://doi.org/10.1088/1757-899X/705/1/012010.

Yulianto, A. and Putra, F.D. (2021) 'Perancangan Pendeteksi Sinyal EMG pada Gerak Lengan menggunakan Wavelet Transform', *Telcomatics*, 6(2), p. 56. Available at: https://doi.org/10.37253/telcomatics.v6i2.4994.

Zukro Aini, R.S. (2024) 'EMG Instrumentation Modeling and Feature Processing Based On Discrete Wavelet Transform', *Indonesian Applied Physics Letters*, 5(1), pp. 1–13. Available at: https://doi.org/10.20473/iapl.v5i1.56245.