

References

- [1] World Health Organization, "Global Status Report on Road Safety 2018," World Health Organization, Geneva, 2018.
- [2] V. Beanland, M. Fitzharris, K. L. Young dan M. G. Lenné, "Driver inattention and driver distraction in serious casualty crashes: data from the Australian National Crash In-depth Study," vol. 54, pp. 99-107, 2013.
- [3] A. Moradi, S. S. H. Nazari dan K. Rahmani, "Sleepiness and the risk of road traffic accidents: A systematic review and meta-analysis of previous studies," *Transportation Research Part F: Traffic Psychology and Behaviour*, vol. 65, pp. 620-629, 2019.
- [4] S. Klauer, T. A. Dingus, T. V. Neale, J. Sudweeks dan D. Ramsey, "The impact of driver inattention on near-crash/crash risk: An analysis using the 100-car naturalistic driving study data," *Naturalistic Driving Study Data.*, 2006.
- [5] G. R. Poudel, C. R. H. Innes, P. J. Bones, R. Watts dan R. D. Jones, "Losing the struggle to stay awake: divergent thalamic and cortical activity during microsleeps.," *Humam Brain Mapping.*, pp. 257-269, 2014.
- [6] B. C. Tefft, "Prevalence of motor vehicle crashes involving drowsy drivers," *Accid Anal Prev*, pp. 180-186, 2011.
- [7] M. A. Regan, J. D. Lee dan K. Young, "Driver Distraction," dalam *Theory, Effects, and Mitigation*, Boca Raton, CRC Press, 2008, pp. 31-40.
- [8] Q. Ji, Z. Zhu dan P. Lan, "Real-time nonintrusive monitoring and prediction of driver fatigue," *IEEE Transactions on Vehicular Technology*, vol. 53, no. 4, pp. 1052 - 1068, 2004.
- [9] European Transport Safety Council, "Road Safety Performance Index Report," European Transport Safety Council, Brussels, 2021.
- [10] T. A. Dingus, F. Guo, S. Lee dan J. Hankey, "Driver crash risk factors and prevalence evaluation using naturalistic driving data," *Proceedings of the National Academy of Sciences*, vol. 113, no. 10, pp. 2636-2641, 2016.
- [11] A. Sahayadhas, K. Sundaraj dan M. Murugappan, "Detecting Driver Drowsiness Based on Sensors: A Review," *Sensors*, pp. 16937-16953, 2012.
- [12] G. S. S. Chari dan J. A. Prashant, "Real-time driver drowsiness detection based on integrative approach of deep learning and machine learning model," *Indonesian Journal of Electrical Engineering and Computer Science*, vol. 39, 2024.
- [13] B. C. Tefft, "Prevalence of Motor Vehicle Crashes Involving Drowsy Drivers, United States, 2009-2013," AAA Foundation for Traffic Safety, Washington, D.C, 2014.

- [14] Y. Akbar, B. Bintoro, D. I. Mulyana dan S. Lestari, “Deteksi Microsleep Menggunakan Convolutional Neural Network dengan sensor ESP32 pada Pengemudi,” *Journal of Information Technology and Computer Science (INTECOMS)*, vol. 7, no. 5, pp. 1668-1674, 2024.
- [15] G. H. Gadea, A. Kreuder, J. Krajewski dan C. Vorstius, “exploring benefits of personality traits and IQ,” *Towards better microsleep predictions in fatigued drivers*, vol. 14, no. 5, pp. 778-792, 2021.
- [16] S. A. Khan, H. Mukhtar dan B. A. Pramudita, “Perancang Sistem Pendeteksi Microsleep Untuk Peringatan Kelelahan pada Pengemudi Kendaraan,” *e-Proceeding of Engineering Telkom University*, vol. 9, no. 4, p. 1810, 2022.
- [17] Badan Pusat Statistik, “Jumlah Kecelakaan, Korban Mati, Luka Berat, Luka Ringan, dan Kerugian Materi,” Badan Pusat Statistik, 29 Februari 2024. [Online]. Available: <https://www.bps.go.id/id/statistics-table/2/NTEzIzI=/jumlah-kecelakaan--korban-mati--luka-berat--luka-ringan--dan-kerugian-materi.html>. [Diakses 23 10 2024].
- [18] Government of Indonesia, *Undang-Undang Republik Indonesia Nomor 22 Tahun 2009 tentang Lalu Lintas dan Angkutan Jalan Pasal 283*, Jakarta, 2009.
- [19] Government Of Indonesia, *Undang-Undang Republik Indonesia Nomor 27 Tahun 2022 Tentang Penggunaan Data Pribadi Pasal 16*, Jakarta, 2022.
- [20] R. Florez, F. Palomino-Quispe, A. B. Alvarez, R. J. Coaquira-Castillo dan J. C. Herrera-Levano, “A Real-Time Embedded System for Driver Drowsiness Detection Based on Visual Analysis of the Eyes and Mouth Using Convolutional Neural Network and Mouth Aspect Ratio,” *Sensors*, vol. 24, no. 19, p. 6261, 2024.
- [21] I. Ali, “Tesla vehicles will now warn drowsy and inattentive drivers with its latest safety feature (update 2023.31.600),” Teslaoracle, 3 November 2023. [Online]. Available: <https://www.teslaoracle.com/2023/11/03/tesla-model-3-highland-driver-drowsiness-warning-update-2023-31-600/>. [Diakses 25 October 2024].
- [22] M. Ramzan, H. U. han, S. M. Awan, A. Ismail, M. Ilyas dan A. Mahmood, “A Survey on State-of-the-Art Drowsiness Detection Techniques,” *IEEE Access*, vol. 7, pp. 61904-61919, 2019.
- [23] Sekretariat Negara Republik Indonesia, *Peraturan Pemerintah Republik Indonesia Nomor 55 Tahun 2012 tentang Kendaraan*, Jakarta, 2012.
- [24] Kementerian Perhubungan Republik Indonesia, *Peraturan Menteri Perhubungan Republik Indonesia Nomor PM 77 Tahun 2020 tentang Penyelenggaraan Sistem Monitoring Keselamatan Angkutan Umum*, Jakarta, 2020.
- [25] J. Skorucak, A. Hertig-Godeschalk, D. R. Schreier, A. Malafeev, J. Mathis dan P. Achermann, “Automatic detection of microsleep episodes with feature-based machine learning,” *Sleep Research Society*, vol. 43, pp. 1-12, 2020.

- [26] M. A. Ngasri, I. S. Isa, S. N. Sulaiman dan Z. H. C. Soh, "Automated Stand-alone Video-based Microsleep Detection System by using EAR," dalam *IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*, Penang, 2019.
- [27] H. Sappl dan T. Kubjatko, *A Driver Behavior Monitoring System for Sustainable Traffic*, 2023.
- [28] J. D. Fuletra dan D. Bosamiya, "A Survey on Driver's Drowsiness Detection Techniques," *International Journal on Recent and Innovation Trends in Computing and Communication* , vol. 1, no. 11, pp. 816-819, 2013.
- [29] Y. Albadawi, M. Takruri dan M. Awad, "A Review of Recent Developments in Driver Drowsiness," *Sensord*, vol. 22, no. 5, p. 2069, 2022.
- [30] G. Sikander dan S. Anwar, "Driver Fatigue Detection Systems: A Review," *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 6, pp. 2339-2352, 2019.
- [31] G. Velrajan, "Nvidia Jetson Nano vs Raspberry Pi - Which one is better for your project?," Ampas Labs Inc., 14 October 2024. [Online]. Available: <https://www.socketxp.com/iot/nvidia-jetson-nano-vs-raspberry-pi-which-one-is-better-for-your-project/>. [Diakses 13 November 2024].
- [32] Raspberry Pi Trading Ltd, "Raspberry Pi 4 Computer Model B," Raspberry Pi Trading Ltd, 2019.
- [33] Raspberry Pi Trading Ltd, "Raspberry Pi 5," Raspberry Pi Trading Ltd, 2024.
- [34] J. Rice-Jones, "Raspberry Pi 5 vs. Jetson Nano: General purpose or AI-focused SBC?," *XDA Developers*, 11 November 2024.
- [35] "Raspberry Pi vs Jetson Nano: Differences," *All3DP*, 20 Oktober 2022.
- [36] Raspberry Pi Ltd, "About the Camera Modules," Raspberry Pi, 7 November 2024. [Online]. Available: <https://www.raspberrypi.com/documentation/accessories/camera.html>. [Diakses 17 November 2024].
- [37] Arducam, "[Discontinued] Arducam Stereo USB Camera, Synchronized Visible Light and Infrared Camera, 2MP 1080P Day and Night Mini UVC USB2.0 Webcam," Arducam, 18 Agustus 2023. [Online]. Available: <https://www.arducam.com/product/b0198arducam-stereo-usb-camera-synchronized-visible-light-and-infrared-camera-2mp-1080p-day-and-night-mini-uv-usb2-0-webcam-board-for-face-recognition-and-biological-detection/>. [Diakses 17 November 2024].
- [38] G. Amato, F. Falchi, C. Gennaro dan C. Vairo, "A Comparison of Face Verification with Facial Landmarks and Deep Features," dalam *MMEDIA 2018, The Tenth International Conference on Advances in Multimedia*, Athens, 2018.

- [39] Google, "Solutions," Google AI for Developers, 21 5 2024. [Online]. Available: https://ai.google.dev/edge/mediapipe/solutions/vision/face_detector#blazeface_short-range. [Diakses 28 12 2024].
- [40] S. Thapa dan A. Sarkar, "A deep dive into enhancing sharing of naturalistic driving data through face deidentification," *The Visual Computer*, pp. 1-32, 2024.
- [41] G. Sikander dan S. Anwar, "Driver Fatigue Detection Systems: A Review," *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 6, pp. 2339 - 2352, 2018.
- [42] S. R. Cholil, T. Handayani, R. Prathivi dan T. Ardianita, "Implementasi Algoritma Klasifikasi K-Nearest Neighbor (KNN) Untuk Klasifikasi Seleksi Penerima Beasiswa," *Indonesian Journal on Computer and Information Technology*, 2021.
- [43] "Algoritma Hutan Acak dalam Pembelajaran Mesin," *geeksforgeeks*, 11 Desember 2024.
- [44] A. Ogunleye dan Q.-G. Wang, "XGBOOST Model for Chronic Kidney Disease diagnosis," *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, vol. 17, 2019.
- [45] "Fungsi Kernel Utama dalam Support Vector Machine (SVM)," *geeksforgeeks*, 7 February 2022.
- [46] A. Avini, K. W. Patunduk, S. Sumarni, H. Harbianti, A. Pratiwi dan R. Hidayat, "Analisis Model Cox Proportional Hazard dan Regresi Logistik sebagai Upaya Pencegahan Covid-19 di Kota Palopo," vol. 5, pp. 105-114, 2022.
- [47] Y. Tampil, H. Komaliq dan Y. Langi, "Analisis Regresi Logistik untuk menentukan Faktor-Faktor yang Mempengaruhi Indeks Prestasi Kumulatif (IPK) Mahasiswa FMIPA Universitas Sam Ratulangi Manado," *Cartesian: Jurnal Matematika Dan Aplikasi*, vol. 6, 2017.
- [48] S. A. Imtiaz dan E. R.-. Villegas, "Automatic Sleep Staging Using State Machine-controlled Decision Trees," 2015.
- [49] A. Malafeev, A. Hertig-Godeschalk, D. R. Schreier, J. Skorucak, J. Mathis dan P. Achermann, "Automatic Detection of Microsleep Episodes With Deep Learning," *Zurich Open Repository and Archive*, 2021.
- [50] R. N. Abdjul, "Pemanfaatan Sistem Face Tracking Berbasis CNN," 2023.
- [51] I. D. Mienye, T. G. Swart dan G. Obaido, "Recurrent Neural Networks: A Comprehensive Review of Architectures, Variants, and Applications," 2024.
- [52] C.-Y. Wang, I.-H. Yeh dan H.-Y. M. Liao, "YOLOv9: SOTA Object Detection Model Explained," Encord, 23 Februari 2024. [Online]. Available: <https://encord.com/blog/yolov9-sota-machine-learning-object-detection-model/>. [Diakses

02 Desember 2024].

- [53] S. Ashtekar, "YOLOv10: Revolutionizing Real-Time Object Detection," Medium, 29 Mei 2024. [Online]. Available: <https://medium.com/@sunidhi.ashtekar/yolov10-revolutionizing-real-time-object-detection-72ef04ad441a>. [Diakses 02 Desember 2024].
- [54] R. Khanam dan M. Hussain, "YOLOv11: An Overview of the Key Architectural Enhancements," arxiv, 23 Oktober 2024. [Online]. Available: <https://arxiv.org/html/2410.17725v1>. [Diakses 2 Desember 2024].
- [55] A. Kumar, "Raspberry Pi 4 vs Pi 5: What's the Difference?," It's FOSS, 26 October 2024. [Online]. Available: <https://itsfoss.com/raspberry-pi-4-vs-5/>. [Diakses 29 December 2024].
- [56] Raspberry Pi Foundation, "Raspberry Pi5, The Everything computer. Optimized," Raspberry Pi Foundation, 28 Oktober 2023. [Online]. Available: <https://www.raspberrypi.com/products/raspberry-pi-5/>. [Diakses 29 December 2024].
- [57] A. Koesdwiady, R. Soua, F. Karray dan M. S. Kamel, "Recent Trends in Driver Safety Monitoring Systems: State of the Art and Challenges," *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*, vol. 66, no. 6, pp. 4550-4563, 2017.
- [58] Z. Zhang, Y. Gao dan W. Yu, "Group Decision Making with Linguistic Distribution Preference Relations: An Interval Numerical Scale-Based Approach," 2019.
- [59] H. Serpi dan C. T. Politi, "Machine Learning assisted Indoor Visible Light Communications Radio Environment Maps," 2022.
- [60] R. A. F. Rozali, S. I. Fadilah dan A. R. M. Shariff, "Driver Drowsiness Detection and Monitoring System (DDDMS)," (*IJACSA*) *International Journal of Advanced Computer Science and Applications*, vol. 13, 2022.
- [61] R. hartono, A. H. Hendrawan dan Ritzkal, "Sistem Perancangan Audio Smart Room Menggunakan Arduino Ethernet Shield R3 Berbasis TCP/IP," *Jurnal INOVA-TIF*, vol. 3, 2020.
- [62] M. K. Syabibi dan A. Subari, "RANCANG BANGUN SISTEM MONITORING KEAMANAN RUMAH BERBASIS WEB MENGGUNAKAN RASPBERRY PI B+ SEBAGAI SERVER DAN MEDIA KONTROL," 2016.
- [63] F. A. Rimbawan, E. Y. Setyawan dan B. S. Widodo, "Analisis Perbandingan Material PLA dan ABS untuk Aplikasi Casing Perangkat IoT dengan Teknik 3D Printing," vol. 4, 2024.
- [64] J. Su, Z. Wang, C. Liao dan H. Ling, "Efficient and Accurate Face Alignment by Global Regression and Cascaded Local Refinement," 2020.
- [65] D. Palenicek, M. Lutter dan J. Peters, "Revisiting Model-based Value Expansion," 2022.

- [66] T. Chen dan C. Guestrin, "XGBoost: A Scalable Tree Boosting System," pp. 785-794, 2016.
- [67] M. A. Leman, "CONSTRUCT VALIDITY ASSESSMENT OF DUNDEE READY EDUCATIONAL ENVIRONMENT MEASUREMENT (DREEM) IN A SCHOOL OF DENTISTRY," *Jurnal Pendidikan Kedokteran Indonesia*, vol. 6, 2017.