

## DAFTAR PUSTAKA

- Acharya, U. R., Joseph, K. P., Kannathal, N., Lim, C. M., & Suri, J. S. (2006). Heart rate variability: A review. In *Medical and Biological Engineering and Computing* (Vol. 44, Issue 12, pp. 1031–1051). <https://doi.org/10.1007/s11517-006-0119-0>
- Akbar, I. A., & Igasaki, T. (2019). Drowsiness estimation using electroencephalogram and recurrent support vector regression. *Information (Switzerland)*, 10(6). <https://doi.org/10.3390/INFO10060217>
- Åkerstedt, T., Discacciati, A., Miley-Åkerstedt, A., & Westerlund, H. (2018). Aging and the Change in Fatigue and Sleep – A Longitudinal Study Across 8 Years in Three Age Groups. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00234>
- Åkerstedt, T., & Gillberg, M. (1990). Subjective and Objective Sleepiness in the Active Individual. *International Journal of Neuroscience*, 52(1–2), 29–37. <https://doi.org/10.3109/00207459008994241>
- Åkerstedt, T., Hallvig, D., & Kecklund, G. (2017). Normative data on the diurnal pattern of the Karolinska Sleepiness Scale ratings and its relation to age, sex, work, stress, sleep quality and sickness absence/illness in a large sample of daytime workers. *Journal of Sleep Research*, 26(5), 559–566. <https://doi.org/10.1111/jsr.12528>
- Akinyemi, Y. (2020). Relationship between economic development and road traffic crashes and casualties: Empirical evidence from Nigeria. *Transportation Research Procedia*, 48, 218–232. <https://doi.org/10.1016/j.trpro.2020.08.017>
- Alimohammadi, I., Azadi, N., Damiri, Z., Ebrahimi, H., & Yeganeh, R. (2020). The effect of age on driving performance in Iran using driving simulator. *Archives of Trauma Research*, 9(3), 116. [https://doi.org/10.4103/atr.atr\\_113\\_19](https://doi.org/10.4103/atr.atr_113_19)
- Awais, M., Badruddin, N., & Drieberg, M. (2017). A hybrid approach to detect driver drowsiness utilizing physiological signals to improve system performance and Wearability. *Sensors (Switzerland)*, 17(9). <https://doi.org/10.3390/s17091991>
- Chan, K. S. N., Srisurangkul, C., Depaiwa, N., & Pangkreung, S. (2021). DETECTION OF DRIVER DROWSINESS FROM EEG SIGNALS USING WEARABLE BRAIN SENSING HEADBAND. *Journal of Research and Applications in Mechanical Engineering*, 9(2). <https://doi.org/10.14456/jrame.2021.14>
- Choi, J., Cha, W., & Park, M.-G. (2020). Declining Trends of Heart Rate Variability According to Aging in Healthy Asian Adults. *Frontiers in Aging Neuroscience*, 12. <https://doi.org/10.3389/fnagi.2020.610626>
- Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Routledge. <https://doi.org/10.4324/9780203771587>
- Ding, T., Zhang, L., Xi, J., Li, Y., Zheng, L., & Zhang, K. (2023). Bus Fleet Accident Prediction Based on Violation Data: Considering the Binding Nature of Safety Violations and Service Violations. *Sustainability (Switzerland)*, 15(4). <https://doi.org/10.3390/su15043520>

- Dirk, J., Kratzsch, G. K., Prindle, J. P., Kröhne, U., Goldhammer, F., & Schmiedek, F. (2017). Paper-Based Assessment of the Effects of Aging on Response Time: A Diffusion Model Analysis. *Journal of Intelligence*, 5(2), 12. <https://doi.org/10.3390/jintelligence5020012>
- Evans, T., Stuckey, R., & Macdonald, W. (2020). Young drivers' perceptions of risk and difficulty: Day versus night. *Accident Analysis and Prevention*, 147. <https://doi.org/10.1016/j.aap.2020.105753>
- Freitas, A., Almeida, R., Gonçalves, H., Conceição, G., & Freitas, A. (2024). Monitoring fatigue and drowsiness in motor vehicle occupants using electrocardiogram and heart rate – A systematic review. *Transportation Research Part F: Traffic Psychology and Behaviour*, 103, 586–607. <https://doi.org/10.1016/j.trf.2024.05.008>
- Ghasemi, A., & Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Ghozali, I., & Latan, H. (2015). Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris. *Semarang: Badan Penerbit UNDIP*, 4(1), 35–46.
- Gonzales, J. U., Elavsky, S., Cipryan, L., Jandačková, V., Burda, M., & Jandačka, D. (2023). Influence of sleep duration and sex on age-related differences in heart rate variability: Findings from program 4 of the HAIE study. *Sleep Medicine*, 106, 69–77. <https://doi.org/10.1016/j.sleep.2023.03.029>
- Groeger, J. A. (2000). *Understanding Driving*. Routledge. <https://doi.org/10.4324/9780203769942>
- Groeger, J. A., & Murphy, G. (2020). Driver performance under simulated and actual driving conditions: Validity and orthogonality. *Accident Analysis and Prevention*, 143. <https://doi.org/10.1016/j.aap.2020.105593>
- Guo, M., Li, S., Wang, L., Chai, M., Chen, F., & Wei, Y. (2016). Research on the Relationship between Reaction Ability and Mental State for Online Assessment of Driving Fatigue. *International Journal of Environmental Research and Public Health*, 13(12), 1174. <https://doi.org/10.3390/ijerph13121174>
- Haerani, S., Parmitasari, R. D. A., Aponno, E. H., & Aunalal, Z. I. (2019). Moderating effects of age on personality, driving behavior towards driving outcomes. *International Journal of Human Rights in Healthcare*, 12(2), 91–104. <https://doi.org/10.1108/IJHRH-08-2017-0040>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, Marko. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Han, L., Du, Z., Zheng, H., Xu, F., & Mei, J. (2023). Reviews and prospects of human factors research on curve driving. In *Journal of Traffic and Transportation Engineering (English Edition)* (Vol. 10, Issue 5, pp. 808–834). KeAi Communications Co. <https://doi.org/10.1016/j.jtte.2023.04.007>
- Hardwick, R. M., Forrence, A. D., Costello, M. G., Zackowski, K., & Haith, A. M. (2022). Age-related increases in reaction time result from slower

- preparation, not delayed initiation. *Journal of Neurophysiology*, 128(3), 582–592. <https://doi.org/10.1152/jn.00072.2022>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hernández-Vicente, A., Hernando, D., Santos-Lozano, A., Rodríguez-Romo, G., Vicente-Rodríguez, G., Pueyo, E., Bailón, R., & Garatachea, N. (2020). Heart Rate Variability and Exceptional Longevity. *Frontiers in Physiology*, 11. <https://doi.org/10.3389/fphys.2020.566399>
- Huo, F., Gao, R., Sun, C., & Hou, G. (2022). Age Differences in Hazard Perception of Drivers: The Roles of Emotion. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.867673>
- Ishaque, S., Khan, N., & Krishnan, S. (2021a). Trends in Heart-Rate Variability Signal Analysis. In *Frontiers in Digital Health* (Vol. 3). Frontiers Media S.A. <https://doi.org/10.3389/fdgth.2021.639444>
- Ishaque, S., Khan, N., & Krishnan, S. (2021b). Trends in Heart-Rate Variability Signal Analysis. *Frontiers in Digital Health*, 3. <https://doi.org/10.3389/fdgth.2021.639444>
- Jabès, A., Klencklen, G., Ruggeri, P., Antonietti, J.-P., Banta Lavenex, P., & Lavenex, P. (2021). Age-Related Differences in Resting-State EEG and Allocentric Spatial Working Memory Performance. *Frontiers in Aging Neuroscience*, 13. <https://doi.org/10.3389/fnagi.2021.704362>
- Khattak, A. J., Ahmad, N., Wali, B., & Dumbaugh, E. (2021). A taxonomy of driving errors and violations: Evidence from the naturalistic driving study. *Accident Analysis and Prevention*, 151. <https://doi.org/10.1016/j.aap.2020.105873>
- KNKT. (2024). STATISTIK INVESTIGASI KECELAKAAN TRANSPORTASI TAHUN 2024. *Komite Nasional Keselamatan Transportasi*.
- Kumagai, H., Kawaguchi, K., Sawatari, H., Kiyohara, Y., Hayashi, M., & Shiomi, T. (2023). Dashcam video footage-based analysis of microsleep-related behaviors in truck collisions attributed to falling asleep at the wheel. *Accident Analysis & Prevention*, 187, 107070. <https://doi.org/10.1016/j.aap.2023.107070>
- Kundinger, T., Yalavarthi, P. K., Riener, A., Wintersberger, P., & Schartmüller, C. (2020). Feasibility of smart wearables for driver drowsiness detection and its potential among different age groups. *International Journal of Pervasive Computing and Communications*, 16(1), 1–23. <https://doi.org/10.1108/IJPCC-03-2019-0017>
- Kwon, S., Kim, H., Kim, G. S., & Cho, E. (2019). Fatigue and poor sleep are associated with driving risk among Korean occupational drivers. *Journal of Transport and Health*, 14. <https://doi.org/10.1016/j.jth.2019.100572>
- Lal, S. K. L., & Craig, A. (2001). A critical review of the psychophysiology of driver fatigue. In *Biological Psychology* (Vol. 55). [www.elsevier.com/locate/biopsych](http://www.elsevier.com/locate/biopsych)
- Lea Muir. (2025, July 2). *Heart Rate Variability Chart by Age – 2 Key Trends to Know.* [https://nchstats.com/heart-rate-variability-chart-by-age/#What\\_Is\\_Genuinely\\_a\\_Good\\_HRV](https://nchstats.com/heart-rate-variability-chart-by-age/#What_Is_Genuinely_a_Good_HRV)

- Li, H., Wang, W., Yao, Y., Zhao, X., & Zhang, X. (2024). A review of truck driver persona construction for safety management. *Accident Analysis & Prevention*, 206, 107694. <https://doi.org/10.1016/j.aap.2024.107694>
- Lohani, M., Payne, B. R., & Strayer, D. L. (2019). A review of psychophysiological measures to assess cognitive states in real-world driving. In *Frontiers in Human Neuroscience* (Vol. 13). Frontiers Media S.A. <https://doi.org/10.3389/fnhum.2019.00057>
- Lopez, K. L., Monachino, A. D., Vincent, K. M., Peck, F. C., & Gabard-Durnam, L. J. (2023). Stability, change, and reliable individual differences in electroencephalography measures: A lifespan perspective on progress and opportunities. *NeuroImage*, 275, 120116. <https://doi.org/10.1016/j.neuroimage.2023.120116>
- Lu, K., Sjörs Dahlman, A., Karlsson, J., & Candefjord, S. (2022). Detecting driver fatigue using heart rate variability: A systematic review. *Accident Analysis & Prevention*, 178, 106830. <https://doi.org/10.1016/j.aap.2022.106830>
- Lyon, C., Mayhew, D., Granié, M.-A., Robertson, R., Vanlaar, W., Woods-Fry, H., Thevenet, C., Furian, G., & Soteropoulos, A. (2020). Age and road safety performance: Focusing on elderly and young drivers. *IATSS Research*, 44(3), 212–219. <https://doi.org/10.1016/j.iatssr.2020.08.005>
- Mahachandra, M., Yassierli, Sutalaksana, I. Z., & Suryadi, K. (2012). Sensitivity of heart rate variability as indicator of driver sleepiness. *2012 Southeast Asian Network of Ergonomics Societies Conference (SEANES)*, 1–6. <https://doi.org/10.1109/SEANES.2012.6299577>
- Malik, M. (1996). Heart rate variability: Standards of measurement, physiological interpretation, and clinical use. *Circulation*, 93, 1043–1065.
- Medic-Pericevic, S., Mikov, I., Glavaski-Kraljevic, M., Spanovic, M., Bozic, A., Vasovic, V., & Mikov, M. (2020). The effects of aging and driving experience on reaction times of professional drivers. *Work*, 66(2), 405–419. <https://doi.org/10.3233/WOR-203181>
- Merri, M., Farden, D. C., Mottley, J. G., & Titlebaum, E. L. (1990). Sampling Frequency of the Electrocardiogram for Spectral Analysis of the Heart Rate Variability. In *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING* (Vol. 37).
- Meuleners, L., Fraser, M. L., Govorko, M. H., & Stevenson, M. R. (2015). Obstructive sleep apnea, health-related factors, and long distance heavy vehicle crashes in Western Australia: A case control study. *Journal of Clinical Sleep Medicine*, 11(4), 413–418. <https://doi.org/10.5664/jcsm.4594>
- Miley, A. Å., Kecklund, G., & Åkerstedt, T. (2016). Comparing two versions of the Karolinska Sleepiness Scale (KSS). *Sleep and Biological Rhythms*, 14(3), 257–260. <https://doi.org/10.1007/s41105-016-0048-8>
- Moradi, A., Nazari, S. S. H., & Rahmani, K. (2019). 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*, 65, 620–629. <https://doi.org/10.1016/j.trf.2018.09.013>
- Müller-Putz, G. R. (2020). *Electroencephalography* (pp. 249–262). <https://doi.org/10.1016/B978-0-444-63934-9.00018-4>
- Nur, M., Adjidji, A., Lasalewo, T., Lahay, H., Nugroho, S., Hidayanti, S., Kurnia, M., Fitri, H. A., Program, ), Industri, S. T., Teknik, F., Gorontalo, U. N.,

- Riset, P., Transportasi, T., Riset, B., & Nasional, I. (2025). *Perbandingan Akurasi Deteksi Pengemudi Truk Pada Kondisi Waktu Siang dan Malam Hari*. <https://doi.org/10.56190/jvst.v4i2.73>
- Orsini, F., Baldassa, A., Grassi, M., Cellini, N., & Rossi, R. (2024). Music as a countermeasure to fatigue: A driving simulator study. *Transportation Research Part F: Traffic Psychology and Behaviour*, 103, 290–305. <https://doi.org/10.1016/j.trf.2024.04.016>
- Ortiz-Peregrina, S., Ortiz, C., Casares-López, M., Castro-Torres, J. J., Jiménez del Barco, L., & Anera, R. G. (2020). Impact of Age-Related Vision Changes on Driving. *International Journal of Environmental Research and Public Health*, 17(20), 7416. <https://doi.org/10.3390/ijerph17207416>
- Patel, M., Lal, S. K. L., Kavanagh, D., & Rossiter, P. (2011). Applying neural network analysis on heart rate variability data to assess driver fatigue. *Expert Systems with Applications*, 38(6), 7235–7242. <https://doi.org/10.1016/j.eswa.2010.12.028>
- Piotrowski, Z., & Szypulska, M. (2017). Classification of falling asleep states using HRV analysis. In *Biocybernetics and Biomedical Engineering* (Vol. 37, Issue 2, pp. 290–301). PWN-Polish Scientific Publishers. <https://doi.org/10.1016/j.bbe.2017.02.003>
- Piovesana, A., & Senior, G. (2018). How Small Is Big: Sample Size and Skewness. *Assessment*, 25(6), 793–800. <https://doi.org/10.1177/1073191116669784>
- Puspasari, M. A., Syaifulah, D. H., Iqbal, B. M., Afranovka, V. A., Madani, S. T., Susetyo, A. K., & Arista, S. A. (2023). Prediction of drowsiness using EEG signals in young Indonesian drivers. *Heliyon*, 9(9). <https://doi.org/10.1016/j.heliyon.2023.e19499>
- Rompelman, O., Coenen, A. J. R. M., & Kitney, R. I. (1977). Measurement of heart-rate variability: Part I-Comparative study of heart.rate variability analysis methods. In *Biol. Eng. & Comput* (Vol. 15).
- Salthouse, T. A. (2009). When does age-related cognitive decline begin? *Neurobiology of Aging*, 30(4), 507–514. <https://doi.org/10.1016/j.neurobiolaging.2008.09.023>
- Sarstedt, M., Ringle, C. M., Cheah, J.-H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics*, 26(4), 531–554. <https://doi.org/10.1177/1354816618823921>
- Scarpelli, S., Alfonsi, V., Gorgoni, M., Camaioni, M., Giannini, A. M., & De Gennaro, L. (2021). Age-related effect of sleepiness on driving performance: a systematic-review. In *Brain Sciences* (Vol. 11, Issue 8). MDPI. <https://doi.org/10.3390/brainsci11081090>
- Sparrow, A. R., LaJambe, C. M., & Van Dongen, H. P. A. (2019). Drowsiness measures for commercial motor vehicle operations. *Accident Analysis and Prevention*, 126, 146–159. <https://doi.org/10.1016/j.aap.2018.04.020>
- Spina, G. D., Gonze, B. B., Barbosa, A. C. B., Sperandio, E. F., & Dourado, V. Z. (2019). Presence of age- and sex-related differences in heart rate variability despite the maintenance of a suitable level of accelerometer-based physical activity. *Brazilian Journal of Medical and Biological Research*, 52(8). <https://doi.org/10.1590/1414-431x20198088>
- Suhardi, B., Alfiyanti, F. R., Iftadi, I., & Adiasa, I. (2023). EVALUATION OF READINESS OF AGRA MAS BUS DRIVERS BASED ON PHYSICAL,

- MENTAL, AND WORK ASPECTS USING THE FITNESS FOR DUTY MODEL. *Malaysian Journal of Public Health Medicine*, 23(1), 245–252.
- Suradi, A. A. M., Alam, S., Mushaf, Furqan Rasyid, M., & Djafar, I. (2023). Sistem Deteksi Kantuk Pengemudi Mobil Berdasarkan Analisis Rasio Mata Menggunakan Computer Vision. *JUKI: Jurnal Komputer Dan Informatika*, 5(2), 222–230.
- Thatcher, R. W., Walker, R. A., Biver, C. J., North, D. N., & Curtin, R. (2003). Quantitative EEG Normative Databases: Validation and Clinical Correlation. *Journal of Neurotherapy*, 7(3–4), 87–121. [https://doi.org/10.1300/J184v07n03\\_05](https://doi.org/10.1300/J184v07n03_05)
- Umetani, K., Singer, D. H., McCraty, R., & Atkinson, M. (1998). Twenty-Four Hour Time Domain Heart Rate Variability and Heart Rate: Relations to Age and Gender Over Nine Decades. *Journal of the American College of Cardiology*, 31(3), 593–601. [https://doi.org/10.1016/S0735-1097\(97\)00554-8](https://doi.org/10.1016/S0735-1097(97)00554-8)
- Utomo, D., Yang, T.-H., Thi Thanh, D., & Hsiung, P.-A. (2019). *Driver Fatigue Prediction Using Different Sensor Data with Deep Learning*.
- Voss, A., Schroeder, R., Heitmann, A., Peters, A., & Perz, S. (2015). Short-Term Heart Rate Variability—Influence of Gender and Age in Healthy Subjects. *PLOS ONE*, 10(3), e0118308. <https://doi.org/10.1371/journal.pone.0118308>
- Watling, C. N., Mahmudul Hasan, M., & Larue, G. S. (2021). Sensitivity and specificity of the driver sleepiness detection methods using physiological signals: A systematic review. *Accident Analysis and Prevention*, 150. <https://doi.org/10.1016/j.aap.2020.105900>
- Williamson, A., Lombardi, D. A., Folkard, S., Stutts, J., Courtney, T. K., & Connor, J. L. (2011). The link between fatigue and safety. *Accident Analysis and Prevention*, 43(2), 498–515. <https://doi.org/10.1016/j.aap.2009.11.011>
- Yang, Z., Chen, X., Deng, J., Li, T., & Yuan, Q. (2023). Footprints of goods movements: Spatial heterogeneity of heavy-duty truck activities and its influencing factors in the urban context. *Journal of Transport Geography*, 113, 103737. <https://doi.org/10.1016/j.jtrangeo.2023.103737>
- Young, R. (2012). Event Detection: The Second Dimension of Driver Performance for Visual-Manual Tasks. *SAE International Journal of Passenger Cars - Electronic and Electrical Systems*, 5(2), 297–316. <https://doi.org/10.4271/2012-01-0964>
- Zeller, R., Williamson, A., & Friswell, R. (2020). The effect of sleep-need and time-on-task on driver fatigue. *Transportation Research Part F: Traffic Psychology and Behaviour*, 74, 15–29. <https://doi.org/10.1016/j.trf.2020.08.001>
- Zhang, H., Yan, X., Wu, C., & Qiu, T. Z. (2014). Effect of Circadian Rhythms and Driving Duration on Fatigue Level and Driving Performance of Professional Drivers. *Transportation Research Record: Journal of the Transportation Research Board*, 2402(1), 19–27. <https://doi.org/10.3141/2402-03>
- Zhang, X., Wang, X., Yang, X., Xu, C., Zhu, X., & Wei, J. (2020). Driver drowsiness detection using mixed-effect ordered logit model considering

- time cumulative effect. *Analytic Methods in Accident Research*, 26. <https://doi.org/10.1016/j.amar.2020.100114>
- Zuraida, R., & Abbas, B. S. (2020). The differences of workload, fatigue, emotional intelligence and driving behavior based on age, experience, time on task per trip among Indonesian inter-city bus drivers. *IOP Conference Series: Earth and Environmental Science*, 426(1). <https://doi.org/10.1088/1755-1315/426/1/012132>