

## DAFTAR PUSTAKA

- Anggadamari, B., & Wijayanto, T. (2015). *Analisis Pengaruh Physical Workload Terhadap Situation Awareness Dan Performansi Mengemudi Di Pagi Dan Malam Hari* [UGM]. [http://etd.repository.ugm.ac.id/home/detail\\_pencarian/90089](http://etd.repository.ugm.ac.id/home/detail_pencarian/90089)
- Anzanello, M. J., & Fogliatto, F. S. (2011). Learning curve models and applications: Literature review and research directions. *International Journal of Industrial Ergonomics*, 41(5), 573–583. <https://doi.org/10.1016/j.ergon.2011.05.001>
- Basahel, A. M., Young, M. S., & Ajovalasit, M. (2010). Impacts of physical and mental workload interaction on human attentional resources performance. *ECCE 2010 - European Conference on Cognitive Ergonomics 2010: The 28th Annual Conference of the European Association of Cognitive Ergonomics, June*, 215–217. <https://doi.org/10.1145/1962300.1962344>
- BPS. (2018). *Statistik Transport Darat (Land Transportation Statistics)*.
- Brandtner, A., Liebherr, M., Schweig, S., Maas, N., Schramm, D., & Brand, M. (2019). Subjectively estimated vs. objectively measured adaptation to driving simulators – Effects of age, driving experience, and previous simulator adaptation. *Transportation Research Part F: Traffic Psychology and Behaviour*, 64, 440–446. <https://doi.org/10.1016/j.trf.2019.05.019>
- Brookhuis, K. A., & de Waard, D. (2010). Monitoring drivers' mental workload in driving simulators using physiological measures. *Accident Analysis and Prevention*, 42(3), 898–903. <https://doi.org/10.1016/j.aap.2009.06.001>
- Brookhuis, K. a, Brookhuis, K. a, Waard, D. De, & Waard, D. De. (2003). How important is driver fatigue, and what can we do about it. *Virtual Reality*, 191–205.
- Brouwer, A. M., Hogervorst, M. A., Van Erp, J. B. F., Heffelaar, T., Zimmerman, P. H., & Oostenveld, R. (2012). Estimating workload using EEG spectral power and ERPs in the n-back task. *Journal of Neural Engineering*, 9(4). <https://doi.org/10.1088/1741-2560/9/4/045008>
- Cain, B. (2007). A Review of the Mental Workload Literature. *Defence Research and Development Toronto (Canada)*, 1998, 4-1-4–34. <http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA474193>
- Chang, E., Kim, H. T., & Yoo, B. (2020). Virtual Reality Sickness: A Review of Causes and Measurements. *International Journal of Human-Computer Interaction*, 36(17), 1–25. <https://doi.org/10.1080/10447318.2020.1778351>
- Cheng, S.-Y., & Hsu, H.-T. (2011). Mental Fatigue Measurement Using EEG. *Risk Management Trends*, June. <https://doi.org/10.5772/16376>
- Choi, M., Ahn, S., & Seo, J. O. (2020). VR-Based investigation of forklift operator situation awareness for preventing collision accidents. *Accident Analysis and Prevention*, 136(November 2019), 105404. <https://doi.org/10.1016/j.aap.2019.105404>
- Clifford, R. M. S., Khan, H., Hoermann, S., Billingham, M., & Lindeman, R. W. (2018). The Effect of Immersive Displays on Situation Awareness in Virtual Environments for Aerial Firefighting Air Attack Supervisor Training. *25th IEEE Conference on Virtual Reality and 3D User Interfaces, VR 2018 - Proceedings*, 533–534. <https://doi.org/10.1109/VR.2018.8446139>
- Comerchero, M. D., & Polich, J. (1999). P3a and P3b from typical auditory and visual stimuli. *Clinical Neurophysiology*, 110(1), 24–30. [https://doi.org/10.1016/S0168-5597\(98\)00033-1](https://doi.org/10.1016/S0168-5597(98)00033-1)
- Dani, T. H., & Gadh, R. (1997). Creation of concept shape designs via a virtual reality interface. *CAD Computer Aided Design*, 29(8), 555–563. [https://doi.org/10.1016/S0010-4485\(96\)00091-7](https://doi.org/10.1016/S0010-4485(96)00091-7)

- Davey, J., Wishart, D., Freeman, J., & Watson, B. (2007). An application of the driver behaviour questionnaire in an Australian organisational fleet setting. *Transportation Research Part F: Traffic Psychology and Behaviour*, 10(1), 11–21. <https://doi.org/10.1016/j.trf.2006.03.001>
- de Winter, J. C. F., van Leeuwen, P. M., & Happee, R. (2012). Advantages and Disadvantages of Driving Simulators: A Discussion. *Proceedings of the Measuring Behavior Conference, 2012*, 47–50.
- Endsley, M. R. (1995). Toward a theory of situation awareness in dynamic systems. *Human Factors*, 37(1), 32–64. <https://doi.org/10.1518/001872095779049543>
- Faure, V., Lobjois, R., & Benguigui, N. (2016). The effects of driving environment complexity and dual tasking on drivers' mental workload and eye blink behavior. *Transportation Research Part F: Traffic Psychology and Behaviour*, 40, 78–90. <https://doi.org/10.1016/j.trf.2016.04.007>
- Froelicher, V. F., Brammell, H., Davis, G., Noguera, I., Stewart, A., & Lancaster, M. C. (1974). A comparison of the reproducibility and physiologic response to three maximal treadmill exercise protocols. *Chest*, 65(5), 512–517. <https://doi.org/10.1378/chest.65.5.512>
- Galante, F., Bracco, F., Chiorri, C., Pariota, L., Biggero, L., & Bifulco, G. N. (2018). Validity of mental workload measures in a driving simulation environment. *Journal of Advanced Transportation*, 2018. <https://doi.org/10.1155/2018/5679151>
- Gevens, A., Smith, M. E., McEvoy, L., & Yu, D. (1997). High-resolution EEG mapping of cortical activation related to working memory: Effects of task difficulty, type of processing, and practice. *Cerebral Cortex*, 7(4), 374–385. <https://doi.org/10.1093/cercor/7.4.374>
- Ghasemi, F., & Mahdavi, N. (2020). A new scoring system for the Rapid Entire Body Assessment (REBA) based on fuzzy sets and Bayesian networks. *International Journal of Industrial Ergonomics*, 80(November). <https://doi.org/10.1016/j.ergon.2020.103058>
- Gopher, D., & Donchin, E. (1986). Workload. An examination of the concept. *Handbook of Perception and Human Performance: Volume 2, Cognitive Processes and Performance*, 41/41 \r-41/49.
- Gugerty, L. J. (1997). Situation Awareness during Driving: Explicit and Implicit Knowledge in Dynamic Spatial Memory. *Journal of Experimental Psychology: Applied*, 3(1), 42–66. <https://doi.org/10.1037/1076-898X.3.1.42>
- Hart, S. G. (2006). NASA-task load index (NASA-TLX); 20 years later. *Proceedings of the Human Factors and Ergonomics Society*, 904–908. <https://doi.org/10.1177/154193120605000909>
- Hassan, M. A., Malik, A. S., Fofi, D., Karasfi, B., & Meriaudeau, F. (2020). Towards health monitoring using remote heart rate measurement using digital camera: A feasibility study. *Measurement: Journal of the International Measurement Confederation*, 149, 106804. <https://doi.org/10.1016/j.measurement.2019.07.032>
- Hsu, B. W., Wang, M. J. J., Chen, C. Y., & Chen, F. (2015). Effective indices for monitoring mental workload while performing multiple tasks. *Perceptual and Motor Skills*, 121(1), 94–117. <https://doi.org/10.2466/22.PMS.121c12x5>
- Hwang, S. L., Yau, Y. J., Lin, Y. T., Chen, J. H., Huang, T. H., Yenn, T. C., & Hsu, C. C. (2008). Predicting work performance in nuclear power plants. *Safety Science*, 46(7), 1115–1124. <https://doi.org/10.1016/j.ssci.2007.06.005>
- Ihemedu-Steinke, Q. C., Sirim, D., Erbach, R., Halady, P., & Meixner, G. (2015). Development and evaluation of a virtual reality driving simulator. *Mensch Und Computer 2015 - Workshop*, 491–500. <https://doi.org/10.1515/9783110443905-070>

- Kantowitz, B. H. (1987). Defining and Measuring Pilot Mental Workload. *NASA. Langley Research Center, Mental-State Estimation*, 41, 179–188.
- Karvonen, J., & Vuorimaa, T. (1988). Heart Rate and Exercise Intensity During Sports Activities: Practical Application. *Sports Medicine: An International Journal of Applied Medicine and Science in Sport and Exercise*, 5(5), 303–311. <https://doi.org/10.2165/00007256-198805050-00002>
- Klimesch, W. (1999). EEG alpha and theta oscillations reflect cognitive and memory performance: a review and analysis. *Brain Research Reviews*, 29(2-3), 169–195. doi:10.1016/S0165-0173(98)00056-3
- Korves, B., & Loftus, M. (2000). Designing an immersive virtual reality interface for layout planning. *Journal of Materials Processing Technology*, 107(1–3), 425–430. [https://doi.org/10.1016/S0924-0136\(00\)00717-2](https://doi.org/10.1016/S0924-0136(00)00717-2)
- Lee, W. S., Kim, J. H., & Cho, J. H. (1998). A driving simulator as a virtual reality tool. *Proceedings - IEEE International Conference on Robotics and Automation*, 1(May), 71–76. <https://doi.org/10.1109/ROBOT.1998.676264>
- Liebe, S., Hoerzer, G. M., Logothetis, N. K., & Rainer, G. (2012). Theta coupling between V4 and prefrontal cortex predicts visual short-term memory performance. *Nature Neuroscience*, 15(3), 456–462. <https://doi.org/10.1038/nn.3038>
- Marottoli, R. A., Allore, H., Araujo, K. L. B., Iannone, L. P., Acampora, D., Gottschalk, M., Charpentier, P., Kasl, S., & Peduzzi, P. (2007). A randomized trial of a physical conditioning program to enhance the driving performance of older persons. *Journal of General Internal Medicine*, 22(5), 590–597. <https://doi.org/10.1007/s11606-007-0134-3>
- McCraty, R., & Shaffer, F. (2015). Heart rate variability: New perspectives on physiological mechanisms, assessment of self-regulatory capacity, and health risk. *Global Advances In Health and Medicine*, 4(1), 46–61. <https://doi.org/10.7453/gahmj.2014.073>
- McGuinness, B. (2004). 2004 Command and Control Research and Technology Symposium Quantitative Analysis of Situational Awareness (QUASA): Applying Signal Detection Theory to True / False Probes and Self-Ratings Barry McGuinness BAE SYSTEMS Quantitative Analysis of Situational. *Command and Control Research and Technology Symposium*.
- Mizuhara, H., Wang, L. Q., Kobayashi, K., & Yamaguchi, Y. (2004). A long-range cortical network emerging with theta oscillation in a mental task. *NeuroReport*, 15(8), 1233–1238. <https://doi.org/10.1097/01.wnr.0000126755.09715.b3>
- Mohammadfam, I., Mirzaei Aliabadi, M., Soltanian, A. R., Tabibzadeh, M., & Mahdinia, M. (2019). Investigating interactions among vital variables affecting situation awareness based on Fuzzy DEMATEL method. *International Journal of Industrial Ergonomics*, 74(July), 102842. <https://doi.org/10.1016/j.ergon.2019.102842>
- Murata, A. (2005). An attempt to evaluate mental workload using wavelet transform of EEG. *Human Factors*, 47(3), 498–508. <https://doi.org/10.1518/001872005774860096>
- Pallamin, N., & Bossard, C. (2016). Presence, Behavioural Realism and Performances in Driving Simulation. *IFAC-PapersOnLine*, 49(19), 408–413. <https://doi.org/10.1016/j.ifacol.2016.10.600>
- Parasuraman, R., Sheridan, T. B., & Wickens, C. D. (2008). Situation Awareness, Mental Workload, and Trust in Automation: Viable, Empirically Supported Cognitive Engineering Constructs. *Journal of Cognitive Engineering and Decision Making*,

- 2(2), 140–160. <https://doi.org/10.1518/155534308X284417>
- Puma, S., Matton, N., Paubel, P. V., Raufaste, É., & El-Yagoubi, R. (2018). Using theta and alpha band power to assess cognitive workload in multitasking environments. *International Journal of Psychophysiology*, 123(September), 111–120. <https://doi.org/10.1016/j.ijpsycho.2017.10.004>
- Restuputri, D. P., Pangesti, A. K., & Garside, A. K. (2019). The measurement of Physical Workload and Mental Workload Level of Medical Personnel. *Jurnal Teknik Industri*, 20(1), 34. <https://doi.org/10.22219/jtiumm.vol20.no1.34-44>
- Salmon, P. M., Stanton, N. A., Walker, G. H., Jenkins, D., Ladva, D., Rafferty, L., & Young, M. (2009). Measuring Situation Awareness in complex systems: Comparison of measures study. *International Journal of Industrial Ergonomics*, 39(3), 490–500. <https://doi.org/10.1016/j.ergon.2008.10.010>
- Salmon, P., Stanton, N., Walker, G., & Green, D. (2006). Situation awareness measurement: A review of applicability for C4i environments. *Applied Ergonomics*, 37(2), 225–238. <https://doi.org/10.1016/j.apergo.2005.02.001>
- Shakouri, M., Ikuma, L. H., Aghazadeh, F., & Nahmens, I. (2018). Analysis of the sensitivity of heart rate variability and subjective workload measures in a driving simulator: The case of highway work zones. *International Journal of Industrial Ergonomics*, 66, 136–145. <https://doi.org/10.1016/j.ergon.2018.02.015>
- Shaw, E. P., Rietschel, J. C., Hendershot, B. D., Pruziner, A. L., Miller, M. W., Hatfield, B. D., & Gentili, R. J. (2018a). Measurement of attentional reserve and mental effort for cognitive workload assessment under various task demands during dual-task walking. *Biological Psychology*, 134(1), 39–51. <https://doi.org/10.1016/j.biopsycho.2018.01.009>
- Shaw, E. P., Rietschel, J. C., Hendershot, B. D., Pruziner, A. L., Miller, M. W., Hatfield, B. D., & Gentili, R. J. (2018b). Measurement of attentional reserve and mental effort for cognitive workload assessment under various task demands during dual-task walking. *Biological Psychology*, 134, 39–51. <https://doi.org/10.1016/j.biopsycho.2018.01.009>
- Shen, K. Q., Li, X. P., Ong, C. J., Shao, S. Y., & Wilder-Smith, E. P. V. (2008). EEG-based mental fatigue measurement using multi-class support vector machines with confidence estimate. *Clinical Neurophysiology*, 119(7), 1524–1533. <https://doi.org/10.1016/j.clinph.2008.03.012>
- Silva, F. P. da. (2014). Mental Workload, Task Demand and Driving Performance: What Relation? *Procedia - Social and Behavioral Sciences*, 162(Panam), 310–319. <https://doi.org/10.1016/j.sbspro.2014.12.212>
- Slater, M., Guger, C., Edlinger, G., Leeb, R., Pfurtscheller, G., Antley, A., Garau, M., Brogni, A., & Friedman, D. (2006). Analysis of physiological responses to a social situation in an immersive virtual environment. *Presence: Teleoperators and Virtual Environments*, 15(5), 553–569. <https://doi.org/10.1162/pres.15.5.553>
- Sluiter, J. K. (2006). High-demand jobs: Age-related diversity in work ability? *Applied Ergonomics*, 37(4 SPEC. ISS.), 429–440. <https://doi.org/10.1016/j.apergo.2006.04.007>
- Souchet, A. D., Philippe, S., Lourdeaux, D., & Leroy, L. (2022). Measuring Visual Fatigue and Cognitive Load via Eye Tracking while Learning with Virtual Reality Head-Mounted Displays: A Review. *International Journal of Human-Computer Interaction*, 38(9), 801–824. <https://doi.org/10.1080/10447318.2021.1976509>
- Tanner, W. P., & Swets, J. A. (1954). A decision-making theory of visual detection. *Psychological Review*, 61(6), 401–409. <https://doi.org/10.1037/h0058700>
- Vidulich, M. A. (2000). The relationship between mental workload and situation

- awareness. *Proceedings of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Association*, "Ergonomics for the New Millennium," 460–463. <https://doi.org/10.1177/154193120004402122>
- von Rosenberg, W., Chanwimalueang, T., Adjei, T., Jaffer, U., Goverdovsky, V., & Mandic, D. P. (2017). Resolving ambiguities in the LF/HF ratio: LF-HF scatter plots for the categorization of mental and physical stress from HRV. *Frontiers in Physiology*, 8(JUN), 1–12. <https://doi.org/10.3389/fphys.2017.00360>
- Walch, M., Frommel, J., Rogers, K., Schüssel, F., Hock, P., Dobbelsstein, D., & Weber, M. (2017). Evaluating VR driving simulation from a player experience perspective. *Conference on Human Factors in Computing Systems - Proceedings, Part F1276(May)*, 2982–2989. <https://doi.org/10.1145/3027063.3053202>
- Will, P. M., & Walter, J. D. (1999). Exercise testing: Improving performance with a ramped Bruce protocol. *American Heart Journal*, 138(6 I), 1033–1037. [https://doi.org/10.1016/S0002-8703\(99\)70067-0](https://doi.org/10.1016/S0002-8703(99)70067-0)
- Wilson, S., & Nottrodt, J. (2009). Situational awareness and safety. *Conference Record of 2009 IEEE IAS Electrical Safety Workshop*, 39, 189–204. <https://doi.org/10.1109/ESW.2009.4813965>
- Yulianto, E., Susanto, A., Widodo, T. S., & Wibowo, S. (2013). Spektrum Frekuensi Sinyal EEG Terhadap Pergerakan Motorik dan Imajinasi Pergerakan Motorik. *Forum Teknik*, 35, 21–32.
- Zhang, T., Kaber, D., & Hsiang, S. (2010). Characterisation of mental models in a virtual reality-based multitasking scenario using measures of situation awareness. *Theoretical Issues in Ergonomics Science*, 11(1–2), 99–118. <https://doi.org/10.1080/14639220903010027>