

## REFERENCES

- [1] Marchand, C., De Graaf, J. B. & Jarrassé, N. Measuring mental workload in assistive wearable devices: a review. *J. NeuroEngineering Rehabil.* 18, 1–15 (2021).
- [2] Karacan, K., Meyer, J. T., Bozma, H. I., Gassert, R. & Samur, E. An environment recognition and parameterization system for shared-control of a powered lower-limb exoskeleton. In 2020 8th IEEE RAS/EMBS International Conference for Biomedical Robotics and Biomechatronics (BioRob), 623–628 (IEEE, 2020).
- [3] Polich, J. Updating p300: an integrative theory of p3a and p3b. *Clin. neurophysiology* 118, 2128–2148 (2007).
- [4] Charles, R. L. & Nixon, J. Measuring mental workload using physiological measures: A systematic review. *Appl. ergonomics* 74, 221–232 (2019).
- [5] Debener, S., Makeig, S., Delorme, A. & Engel, A. K. What is novel in the novelty oddball paradigm? functional significance of the novelty p3 event-related potential as revealed by independent component analysis. *Cogn. Brain Res.* 22, 309–321 (2005).
- [6] Reis, P., Hebenstreit, F., Gabsteiger, F., von Tscharn, V. & Lochmann, M. Methodological aspects of EEG and body dynamics measurements during motion. *Front. human neuroscience* 8, 156 (2014).
- [7] Nathan, K. & Contreras-Vidal, J. L. Negligible motion artifacts in scalp electroencephalography (EEG) during treadmill walking. *Front. human neuroscience* 9, 708 (2016).
- [8] Kline, J. E., Huang, H. J., Snyder, K. L. & Ferris, D. P. Isolating gait-related movement artifacts in electroencephalography during human walking. *J. neural engineering* 12, 046022 (2015).
- [9] Ozdemir, R. A., Contreras-Vidal, J. L., Lee, B.-C. & Paloski, W. H. Cortical activity modulations underlying age-related performance differences during posture–cognition dual tasking. *Exp. brain research* 234, 3321–3334 (2016).
- [10] Protzak, J., Wiczorek, R. & Gramann, K. Peripheral visual perception during natural overground dual-task walking in older and younger adults. *Neurobiol. aging* 98, 146–159 (2021).
- [11] Delorme, A. & Makeig, S. EEGLAB: an open source toolbox for analysis of single-trial EEG dynamics including independent component analysis. *J. neuroscience methods* 134, 9–21 (2004).
- [12] Lopez-Calderon, J. & Luck, S. J. ERPLAB: an open-source toolbox for the analysis of event-related potentials. *Front. human neuroscience* 8, 213 (2014).
- [13] Swerdloff, M. M. & Hargrove, L. J. Quantifying cognitive load using EEG during ambulation and postural tasks. In 2020 42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2849–2852 (IEEE, 2020).