**REFERENCES**

[1]. Rechtschaffen, A., & Kales, A. (1968). A manual of standardized terminology, techniques and scoring system for sleep stages of human subjects. Public Health Service, US Government Printing Office.

[2]. Berry, R. B., Budhiraja, R., Gottlieb, D. J., Gozal, D., Iber, C., Kapur, V. K., ... & Tangredi, M. M. (2012). Rules for scoring respiratory events in sleep: update of the 2007 AASM Manual for the Scoring of Sleep and Associated Events. Journal of Clinical Sleep Medicine, 8(5), 597-619

[3]. Ronzhina, M., Janoušek, O., Kolařík, M., Léhar, J., Nováková, M., Honzík, P., & Provazník, I. (2012). Sleep scoring using artificial neural networks. Sleep Medicine Reviews, 16(3), 251-263.

[4]. Alickovic, E., & Subasi, A. (2018). Ensemble SVM method for automatic sleep stage classification. IEEE Transactions on Instrumentation and Measurement, 67(6), 1258-1265.

[5]. Supratak, A., Dong, H., Wu, C., & Guo, Y. (2017). DeepSleepNet: A model for automatic sleep stage scoring based on raw single-channel EEG. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 25(11), 1998-2008.

[6]. Chennu, S., & Bekinschtein, T. A. (2012). Arousal modulates auditory attention and awareness: insights from sleep, sedation, and disorders of consciousness. Frontiers in Psychology, 3, 65.

[7]. Sridhar, N., Ravi, S., & Singh, M. (2020). Deep learning for EEG-based sleep stage classification: A review. Artificial Intelligence Review, 53(8), 5371-5416.

[8]. Tsinalis, O., Matthews, P. M., & Guo, Y. (2016). Automatic sleep stage scoring using time-frequency analysis and stacked sparse autoencoders. Annals of Biomedical Engineering, 44(5), 1587-1597.

[9]. Sun, H., Jia, J., & Dong, Y. (2019). Sleep stage classification using Hilbert-Huang transform and ensemble learning. Neurocomputing, 349, 214-224.

[10]. Phan, H., Mertins, A., & Koch, P. (2018). Joint classification and prediction CNN framework for automatic sleep stage classification. IEEE Transactions on Biomedical Engineering, 66(5), 1285-1296.

**iv**