

Curriculum Vitae

Péter Nagy

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Personal

Date and Place of Birth: 1992, Budapest, Hungary
Nationality: Hungarian
Languages Spoken: Hungarian, English, German

Education

2023 PhD degree
Electrical Engineering

2017-2022 PhD student
Budapest University of Technology and Economics
Faculty of Electrical Engineering and Informatics
Doctoral School of Electrical Engineering

2015-2017 M.Sc. in Biomedical Engineering
Budapest University of Technology and Economics

2011-2015 B.Sc. in Electrical Engineering
Budapest University of Technology and Economics

Employment

2023- Research Fellow
Research Centre for Natural Sciences
Institute of Cognitive Neuroscience and Psychology
Sound and Speech Perception Research Group

2023- Assistant Professor
Department of Measurement and Information Systems
Budapest University of Technology and Economics

2022-2023 Research Assistant
Research Centre for Natural Sciences

2022-2023 Assistant Lecturer
Budapest University of Technology and Economics

2018-2019 Software Test Engineer
Alten SW GmbH

2016-2017 Software Test Engineer
B. Braun Medical Kft.

Honors and Awards

Innovation award of the Pro-Progressio Foundation, 2020
Josef Heim special award of the Schnell László Foundation, 2020
Josef Heim award of the Schnell László Foundation, 2019

Publications

Nagy, P., Tóth, B., Winkler, I., & Boncz, Á. (2024). The effects of spatial leakage correction on the reliability of EEG-based functional connectivity networks. *Human Brain Mapping*, 45(8), e26747.

Nagy, P., Sax, B., Kozák, A., Merkely, B., Osztheimer, I., & Jobbágy, Á. (2023). Automatic non-invasive blood pressure measurement in left ventricular assist device patients with a photoplethysmography assisted device. *The International Journal of Artificial Organs*, 46(5), 274-279.

Nagy, P., & Jobbágy, Á. (2022). Sensor fusion for the accurate non-invasive measurement of blood pressure. *Measurement: Sensors*, 24, 100481.

Jobbágy, Á., & Nagy, P. (2018). The effect of cuff occlusion on the pulse wave transit time from the heart to the cuff. *Slovenian Medical Journal*, 87(5-6), 237-248.

Bonyar, A., Nagy, P., Mayer, V., Vitéz, A., Gerecs, A., Sántha, H., & Harsányi, G. (2017). A colorimetry based, semi-automated portable sensor device for the detection of arsenic in drinking water. *Sensors and Actuators B: Chemical*, 251, 1042-1049.

Jobbágy, Á., Majnár, M., Tóth, L. K., & Nagy, P. (2017). HRV-based stress level assessment using very short recordings. *Periodica polytechnica Electrical engineering and computer science*, 61(3), 238-245.

Conference papers

Csapó, T. G., Arthur, F. V., Nagy, P., & Boncz, Á. (2023). Comparison of acoustic-to-articulatory and brain-to-articulatory mapping during speech production using ultrasound tongue imaging and EEG. In: *SMM23, Workshop on Speech, Music and Mind 2023* (pp. 16-20). ISCA.

Csapó, T. G., Arthur, F. V., Nagy, P., & Boncz, Á. (2023). Towards Ultrasound Tongue Image prediction from EEG during speech production. In: *24th INTERSPEECH Conference 2023* (pp. 1164-1168).

Nagy, P., & Jobbágy, Á. (2022). A New Method to Determine Systolic Blood Pressure Indirectly Aided by Parallel Recording of ECG and PPG. In *Proceedings of the 15th International Joint Conference on Biomedical Engineering Systems and Technologies* (pp. 221-227). SciTePress.

Nagy, P., & Jobbágy, Á. (2020). Heart Rate Variability Calculation Using Heart Periods Measured Between Consecutive P onset Points. In *European Medical and Biological Engineering Conference* (pp. 613-621). Springer, Cham.

Nagy, P., & Jobbágy, Á. (2019). Accurate calculation of heart period and pulse wave transit time. In *Mediterranean Conference on Medical and Biological Engineering and Computing* (pp. 267-275). Springer, Cham.

Nagy, P., & Jobbágy, Á. (2019). Personalization of the oscillometric blood-pressure measurement. In World Congress on Medical Physics and Biomedical Engineering 2018 (pp. 885-888). Springer, Singapore.

Jobbágy, Á., & Nagy, P. (2017). The Effect of Occlusion with the Cuff. In EMBEC & NBC 2017 (pp. 9-12). Springer, Singapore.

Nagy, P., Bonyar, A., Sántha, H., & Harsányi, G. (2016). The effect of elevated water sample temperature on the performance of a custom-developed colorimetric arsenic sensor. *Procedia Engineering*, 168, 1479-1482.

Jobbágy, Á., & Nagy, P. (2015). Pulse Wave Velocity as a Function of Cuff Pressure-Extra Information About the Cardiovascular System. In World Congress on Medical Physics and Biomedical Engineering, June 7-12, 2015, Toronto, Canada (pp. 1279-1282). Springer, Cham.

Posters

Nagy, P., Kovács, P., Boncz, Á., Szalárdy, O., Baumgartner, R., Ignatiadis, K., Winkler, I. & Tóth, B. (2024). Neural Mechanisms of Timing and Anticipation in Auditory Perception. Presented at the 2024 Annual Meeting of the Society for Psychophysiological Research (SPR), October 23-26, Prague.

Nagy, P., Béres, L., Boncz, Á., & Winkler, I. (2024). Movement Synchrony and Gaze Coordination during Face-to-Face Communication. Presented at the 5th Workshop on Cognitive Neuroscience of Auditory and Cross-Modal Perception, 15-17 April, Košice.

Nagy, P., Tóth, B., Boncz, Á. & Winkler, I. (2023). Reliability of functional connectivity and person identification based on resting-state EEG. Presented at the Salzburg Mind Brain Annual Meeting (SAMBA) 2023, June 13-14.

Nagy, P., Tóth, B., Boncz, Á. & Winkler, I. (2022). Reliability of EEG resting-state networks. Presented at the Salzburg Mind Brain Annual Meeting (SAMBA) 2022, June 14-15.

Nagy, P., Tóth, B., Winkler, I., & Boncz, Á. (2021). Similarity and modular organization of resting-state EEG networks. Presented at the 5th International Conference of the European Society for Cognitive and Affective Neuroscience, June 23-26, Virtual event.

Nagy, P., Tóth, B., Winkler, I., & Boncz, Á. (2021). Reliability of EEG functional connectivity based modular network organization. Presented at the SfN Global Connectome, January 11-13, Virtual event.