Curriculum Vitae

Michal Vavrečka

Personal:

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Place of birth:	Frýdek-Místek
Date of birth:	07.03.1977
Nationality:	Czech

Education:

1/2005- 6/2008	Masaryk University, Faculty of Social Studies, Brno, Czech Republic, PhD. Degree, General Psychology, 18.6.2008, Application of cognitive semantics in the model of spatial relations representation.
9/1999-1/2005	Masaryk University, Faculty of Arts, Brno, Czech Republic, M.A. Degree, Psychology, 1.2.2005, Methods of Human Intelligence Simulation.

Position:

4/2008- present	Czech Technical University, Faculty of Electrical Engineering, Biodat Research Group, Gerstner Laboratory, Prague, Czech Republic, Assistant Professor

Scholarships:

2009	SAIA scholarship Department of Applied Informatics, Faculty of Mathematihcs, Physics and informatics, Mei:CogSci, Comenius University, Bratislava, Slovakia
2006	SAIA scholarship Department of Applied Informatics, Faculty of Mathematics, Physics and informatics, Mei:CogSci, Comenius University, Bratislava, Slovakia
2006	Summer school of Cognitive science Central and Eastern European Center for Cognitive Science, Sofia, Bulgaria

Grants:

2009	FRVS 2081/2009/F1/a Innovation in Cognitive Systems
2011	GACR - Neural correlates of reference frames in 3D world

Teaching:

2005-2010	Introduction to Cognitive Science
2008-present	Cognitive Systems
2009-present	Cognitive Psychology - Metacognition
2012-present	Neuroinformatics

Membership:

Eucog II -	2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics
CSKI	Member of the Czech Society of Cybernetics and Informatics

Publications

2 impacted papers, 3 journal papers, 1 book chapter, over 15 conference papers

Vavrečka, M., Farkaš, I., Lhotská, L., (submitted). A multimodal connectionist architecture for unsupervised grounding of spatial language
Vavrečka, M., Gerla, V.,Lhotská, L., Brunovský, M., (2012). Frames of reference and their neural correlates within navigation in a 3D environment, Visual Neuroscience 29 (03), 183-191
Štěpánová, K. Vavrečka, M., Lhotská, L., (2012).Changes in strategy during the mental rotation task and its correlation with EEG, Clinical Neurophysiology 123 (3), e10-e10
Vavrečka, M., Farkaš, I., Lhotská, L., (2012). The inter-individual differences and the test–retest reliability of a EEG signal, Clinical Neurophysiology 123 (3), e10-e11
Vavrečka, M., Farkaš, I., Lhotská, L., (2011). Bio-inspired Model of Spatial Cognition. In Lecture Notes in Computer Science 7062 LNCS (PART 1), pp. 443-450
Vavrečka, M., Lhotská, L., (2011). EEG analysis of the navigation strategies in a 3D tunnel task. In Lecture Notes in Computer Science 7062 LNCS (PART 1), pp. 388-395
Vavrečka, M., Lhotská, L., (2011). Event related spectral perturbations within 3D navigation task. Activitas Nervosa Superior Rediviva, vol.53, 2011
Vavrečka, M., (2011). (in Czech) Visually driven homonyms disambiguation. In: Kelemen, J. , Kvasnička, V., Pospíchal, J.,(eds.), Kognice a umělý život XI. Opava 2011, p. 293-299.

Vavrečka, M., Farkaš, I., (2011). Unsupervised Grounding of Spatial Relations. In B. Kokinov, A. Karmiloff-Smith, N. J. Nersessian & (Eds.), Proceedings of the Third European Conference on Cognitive Science, paper 194. Sofia, Bulgaria: New Bulgarian University Press
Vavrečka, M., Kužílek J., Lhotská, L., (2010). Classification of the EEG feature components , *In Proceedings of 10th International Conference on Information Technology and Applications in Biomedicine [CD-ROM],.*Piscataway: IEEE, 2010
Gerla V., Djordjevic, V., Vavrečka, M., Lhotská, L., (2010). Application of Clustering for Increasing the Evaluation Objectivity of Electroencephalographic Recordings , *In Proceedings of 20th Biennal International Conference on Biosignal Processing [CD-ROM],.Brno*: 2010
Vavrečka, M., (2010). *(in Czech)* Representation of objects in space based on two visual pathways. In: *Kelemen, J. , Kvasnička, V., (eds.), Kognice a umělý život X.* Opava 2010, p. 403-409.
Vavrečka, M. (2009). *(in Czech)* Model for spatial relations grounding. In *M. Petrů et al. (eds.) Struny mysli : Kognice 2007*. Ostrava: Montanex, 2009, p.139-148. ISBN 978-80-7225-302-9.
Macaš, M., Vavrečka, M., Gerla V., Lhotská, L., (2009). Classification of the emotional states based on the EEG signal processing , *In Proceedings of 9th International Conference on Information Technology and Applications in Biomedicine [CD-ROM],.*Piscataway: IEEE, 2009
Vavrečka, M., (2009). The neural correlates of spatial reference frames processing, *Cognitive processing,* 10:2, Springer Berlin, p. 342-345.
Vavrečka, M., (2009). The EEG Correlates of the Allocentric and the Egocentric Spatial Reference Frames Processing, In: *O. Dossel and W. Schlegel (Eds.), World Congress on Medical Physics and Biomedical Engineering 2009, IFBME Proceedings,.* Heidelberg: Springer, 2009, vol. 25/IV, p. 2295-2299.
Vavrečka, M., (2009). *(in Czech)* The EEG activity within the spatial navigation. In: *Kelemen, J. , Kvasnička, V., Rybár, J. (eds.), Kognice a umělý život IX.* Opava 2009, p. 341-350.
Vavrečka, M., (2008). *(in Czech)* Spatial frames of reference processing and its EEG correlates. In *55. společný sjezd české a slovenské společnosti klinické neurofyziologie.* MSD Brno, p. 49
Vavrečka, M. (2008). *(in Czech)* Application of the cognitive semantics in the model for the spatial terms representation. *Unpublished PhD thesis, Masaryk University in Brno, Czech Republic.*
Vavrečka, M. (2008). *(in Czech)* Multimodal representations for symbol grounding. In*: V. Kvasnička, P. Trebatický (Eds.), Kognice a umělý život VIII* Praha : VŠE Praha, 2008
Vavrečka, M. (2007). *(in Czech)* Grounding of spatial terms. In: *J. Kelemen, V. Kvasnička (eds.). Kognice a umělý život VII*. 1. vyd. Opava : Slezská univerzita, p. 365-377.
Vavrečka, M. (2006). *(in Czech)* Symbol grounding in context of zero semantic commitment. In: *J. Kelemen, V. Kvasnička (eds.), Kognice a umělý život VI.* Opava : Slezská univerzita, p. 401-411
Vavrečka, M. (2006). *(in Czech)* How long-term presentation of text stimuli affects production and perception of visual mental images. In: *Šikl, R., Lukavský, J. (eds.), Kognice 2006.* 1. vyd. Praha : Psychologický ústav AVČR, (2006). p. 150-158