

# Overview of neuroinformatics infrastructure in Pilsen, CZ



MOUŠEK, R., JEŽEK, P. *Overview of neuroinformatics infrastructure in Pilsen, CZ*. Boston, 2011.

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The paper deals with a present neuroinformatics infrastructure at Department of Computer Science and Engineering, Pilsen, the Czech Republic. EEG/ERP portal serves for storage and management of EEG/ERP experiments. The functionalities include experimental scenarios, a content management system and management of user groups, full text search or a laboratory booking system. The portal is registered within Neuroscience Information Framework (NIF). The inner structure of the portal is provided as ontology. The converters of widely used EEG/ERP data/metadata formats (edf, vhdr, ascii) have been developed. The library of methods for EEG/ERP signal processing includes the wavelet transform, matching pursuit algorithm, and the modification of Hilbert-Huang transform. JERPA/JUIGLE software is a software application for EEG/ERP signal visualization and processing. It includes epochs and artifacts marking, baseline correction, epochs averaging, and integration of signal processing methods.

04.09.2011

Boston