The opponent report of Ph.D. thesis

Ing. Ibrahim Salem Jahan: EEG Data Analysis

The goal of the submitted Ph.D. thesis was an analysis of EEG data. In the thesis is not precisely defined the goal of the thesis. Part of the work is based on review and compilation of theoretical knowledge in the available literature. At the end of the work is ten pages of proposed three methods for EEG analyzing. Finally the short discussion and results comparison is presented.

From my point of view is very difficult to evaluate the work oriented to informatics methods application even on biomedical signals. Nevertheless the work describe the present review of the methods for EEG analyzing and their results. There are described the original methods of EEG processing and comparison within existing methods results. Some of presented methods did not reflect clinical requirements and outputs. Methods used for EEG processing like FFT analysis and polynomial fitting and Lempel-Ziv complexity is most disputable due the biomedical signal specificity.

Consistency and structure of individual chapters of the work is quit complete and logically understandable. Chapter titles do not represent necessarily their content. There is wide range of literature in reference that shows deep interest of the author in the topic.

The Ph.D. thesis is rather weakly concerning the level and requirements for thesis dissertation.

In summary, the work has questionable benefit to applicable in practice. Still, I can recommend working to defense.

In Ostrava, 24. April 2015

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