

## I. IDENTIFICATION DATA

<b>Thesis title:</b>	<b>Utilization of DKI-MRI in patients with pharmacoresistant epilepsy due to focal cortical dysplasia</b>
<b>Author's name:</b>	<b>Timur Abragimovich</b>
<b>Type of thesis :</b>	bachelor
<b>Faculty/Institute:</b>	Faculty of Electrical Engineering (FEE)
<b>Department:</b>	Department of Circuit Theory
<b>Thesis reviewer:</b>	Prof. Jakub Otáhal
<b>Reviewer's department:</b>	2.LF UK

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>extraordinarily challenging</b>
<i>How demanding was the assigned project?</i>	
The assigned work was extremely demanding, as it required extensive theoretical knowledge and implementation of a number of analytical algorithms and a number of procedures for working with image datasets. Furthermore, I would like to mention the necessary knowledge of physics and the basics of biological disciplines, especially neuroscience, as well as good programming skills.	

<b>Fulfilment of assignment</b>	<b>fulfilled</b>
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
The author has fulfilled the requirements of the bachelor thesis. The objectives were achieved and the author independently implemented algorithms that have not been applied to these datasets before.	

<b>Activity and independence when creating final thesis</b>	<b>A - excellent.</b>
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
The author was very independent during the work and took the initiative to come up with suggestions on how to move the project forward. I would also like to mention here his conscientiousness and discipline, which is not commonplace among students at this level of study.	

<b>Technical level</b>	<b>A - excellent.</b>
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
The technical level of the work is at a very high level, not only with respect to the implemented algorithms, but also the quality of programming and graphical outputs.	

<b>Formal level and language level, scope of thesis</b>	<b>C - good.</b>
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
Formally, the thesis is good, it meets the requirements set by the study regulations. The English language is at a very good level and the graphical outputs are mostly very well prepared. However, in some passages the text is brief and some information is missing. As an example, I would mention the absence of a description of the MRI acquisition protocol by which the datasets used were obtained. Furthermore, it would be useful to explicitly state that all data were acquired and processed on the basis of approved informed consent.	

**Selection of sources, citation correctness****B - very good.**

*Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?*

The author has worked very well with literary sources covering most of the important publications in the field, which are adequately cited in the text.

**Additional commentary and evaluation (optional)**

*Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.*

The submitted bachelor thesis is of very high quality both in terms of professional and formal aspects. The student has proposed and implemented a number of innovative tests that could ultimately find application in the diagnosis of epileptogenic lesions.

**III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE**

*Bakalářská práce Timura Abragimoviče je jednoznačně vyjímečná. Autor navrhnul a realizoval celou řadu nových postupů, ověřil jejich výkonnost a tím jednoznačně prokázal schopnosti zasluhující úspěšnou obhajobu bakalářské práce a tím i udělení titulu Bakalář.*

The grade that I award for the thesis is **A - excellent**.

Date: **2.6.2024**

Signature:

prof.MUDr. Jakub Otáhal, Ph.D.