BACHELOR THESIS
PEER REVIEW

I. PERSONAL AND STUDY DETAILS

Student's name: Beqqali Yahya
Personal ID number: 473056
Faculty: Faculty of Biomedical Engineering
Study program: Biomedical and Clinical Technology
Branch of study: Biomedical Technician

II. EVALUATION OF THE BACHELOR THESIS

Bachelor's thesis title in English:

Pilot study for comparison of cerebral and somatic NIRS in septic patients

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>N. of points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fulfillment of the aim of the thesis and suitability of the structure of the thesis with respect to the topic (compliance with the assignment). (0 – 30)*</td>
<td>25</td>
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<tr>
<td>2. Theoretical level and application of accessible sources. (0 – 30)*</td>
<td>15</td>
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<tr>
<td>3. Scope of experimental work (SW, HW) and applied knowledge, quality of methodology and conclusions of the thesis. (0 – 30)*</td>
<td>15</td>
</tr>
<tr>
<td>4. Formal requisites and layout of the thesis (writing mastery, structuring, graphs, tables, citations in the text, list of references etc.). (0 – 10)*</td>
<td>6</td>
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</tbody>
</table>

* Verbal evaluation should be part of the Comments
III. PROPOSED QUESTIONS FOR THE DEFENSE (OPTIONAL)

1. According to the table 5.1 patients demographics: Can the amount of hemoglobin affects the NIRS measurement assessed by INVOS 5100C device?

2. Were there any medical events or procedures during the measured period? Could they affect the rSO2 waveform? (I’m missing some event markers or labels inside the graphs)

3. Is linear correlation the best option for your calculations of NIRS channel relations? Have you thought about for example intraclass correlation coefficient (ICC)?

IV. THE OVERALL ASSESSMENT OF THE LEVEL OF THE BACHELOR THESIS

<table>
<thead>
<tr>
<th>Grade**:</th>
<th>A (excellent)</th>
<th>B (very good)</th>
<th>C (good)</th>
<th>D (satisfactory)</th>
<th>E (sufficient)</th>
<th>F (failed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of points:</td>
<td>100 - 90</td>
<td>89 - 80</td>
<td>79 - 70</td>
<td>69 - 60</td>
<td>59 - 50</td>
<td>&lt; 50</td>
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</table>

** in case of F (failed) please explain in detail

I give the above grade to the bachelor thesis and I recommend/do not recommend it for the defence.

V. COMMENTS

The main goal of the work was met, however only 2 patients were included in this pilot study (due to the Covid-19 pandemic). Nevertheless, I would expect a better quality of the theoretical part, much better quality of methodology and conclusions of the thesis.

For example:

There are no relations (even just discussed) between measured data and patients condition. How it was concluded that the method can be used as perfusion „indicator“ for patients suffering sepsis? Based on correlation only?

The mentioned correlation was performed (due to artifacts) on shorter intervals - those intervals have been selected randomly (just part of the signal without artifacts)? Selected intervals are not the same for both patients.

Poor graphs or figures quality (e.g. 5.1 - why there is time axis in seconds?).

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Signature: .............................................
Date: ....................................................