# I. PERSONAL AND STUDY DETAILS

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|---|---|---|---|
| Student's name: | **Shaat Abdulrahman Mahmoud M** | Personal ID number: | **482840** |
| 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:

**Effect of measurement site temperature on perfusion index**

| | Evaluation criteria | N. of points |
|---|---|---|
| 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)* <br><br> Any part or sentence of the bachelor thesis assignment has to be dealt with. The full amount of points can be given to the excellent thesis only. The points are reduced in relation to the part of the assignment which is not properly dealt with or is not included at all. | 20 |
| 2. | Theoretical level and application of accessible sources. (0 – 30)* <br><br> The reader evaluates the relevance of the theoretical part of the thesis with respect to the assignment and structuring of the ideas. If word-for-word citing prevails, the reader shall decrease the rating by 15 points. (of course if copyright is abided). Moreover, another reason for decreasing the overall assessment is insufficient amount of theoretical knowledge, references and sources. | 30 |
| 3. | Scope of experimental work (SW, HW) and applied knowledge, quality of methodology and conclusions of the thesis. (0 – 30)* <br><br> Maximum number of points can be granted to a thesis which is fit for publishing. This aspect is judged with respect to enhancement of theoretical knowledge and practical implications. Creation of a model, SW or technical realization is valued. For minor methodological flaws, the assessment is reduced by up to 5 points. Inconsistency of elaboration with the theoretical background and unclear or not fully professional approach leads to a reduction by at least 15 points. Another decrease can be due to insufficient discussion. A total of 30 points can be given to a very complex and flawless work, including other activities such as participation in scientific-research project or grant, active participation in the writing publications, patents and utility models. | 25 |
| 4. | Formal requisites and layout of the thesis (writing mastery, structuring, graphs, tables, citations in the text, list of references etc.). (0 – 10)* <br><br> Reader evaluates formal requisites according to the rules of writing, attributes of final works, i.e. text formatting, structure of the text, references, quality of charts and tables and citations. Number of points can be reduced for noncompliance with the rules by the maximum of 2 points for each disrespected attribute. Grammatical mistakes, spelling mistakes and improper stylistics and terminology decrease the evaluation by 2-4 points. Only standard terminology should be used, especially in the English language (it is necessary to judge the ability to use the technical language - 2 points), graph are according to the rules (see tolerance and the influence of statistical processing - 2 points), captions are included for graphs and tables and everything is readable (2 points), citation rules are complied with according to ISO690 and ISO690-2 (2 points). | 2 |
| 5. | **Total points** | 77 |

* Verbal evaluation should be part of the Comments

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## III. PROPOSED QUESTIONS FOR THE DEFENSE (OPTIONAL)

1. In Chapter 3 (AIMS), the student states that in addition to the main objective stated in the assignment, they will explore the possibility of using the perfusion index as a „supplemementary diagnostic indicator with a specific focused evaluation of the efficacy of perfusion index as an auxiliary tool for the diagnosis and monitoring patients". I apologize for any confusion. If the student aims to explore the potential use of the mentioned parameter for diagnosing or monitoring patients, but the progress and conclusions of the work do not cover this aspect, it seems there is a discrepancy between the stated objective and the actual content of the work. Could the student explain the potential use of this parameter in clinical practice?

2. Are there any other parameters that significantly limit the use of the perfusion index?

3.

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

| Grade**: | A (excellent) | B (very good) | C (good) | D (satisfactory) | E (sufficient) | F (failed) |
|---|---|---|---|---|---|---|
| Number of points: | 100 - 90 | 89 - 80 | 79 - 70 | 69 - 60 | 59 - 50 | < 50 |
|  | ☐ | ☐ | X | ☐ | ☐ | ☐ |

** 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

1.In chapter 3 AIMS, the student mentions an additional goal of exploring the use of this parameter in diagnosing or monitoring patients. However, it appears that this objective has not been fulfilled.

2. Appropriate and relevant theoretical foundation

3. It seems that the evaluation of data normality is too extensive (7 pages), perhaps it would be sufficient to briefly state whether it follows a normal distribution and discuss the selection of the statistical test. The graphical representation of data (box plots 5.3, 5.4, and 5.5) in Chapter 5.1.2 seems peculiar. The values on the vertical axis do not align with the values in Figures 5.1 and 5.2, nor do they correspond to the values in Table 5.1. Furthermore, there appear to be an excessive number of outliers. In the conclusion, I would recommend summarizing the key points of the study and being modest regarding the contribution of the work.

4. Low level of English proficiency - use of colloquial terms (speaking of oximeters..), lowercase letters at the beginning of sentences, poorly chosen words that lack meaning in the given context, failure to use established terminology (breathing rate), grammatical errors, chapter headings at the end of the page, captions for images and tables on a separate page, errors in text formatting (block alignment etc..)

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Signature: ............................................

Date: ....................................................

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