

I. PERSONAL AND STUDY DETAILS

Student's name: **Gil León Angie Vanessa** Personal ID number: **487718**
 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:

Analysis of the response of pulse oximeters to changes in oxygen saturation depending on the set averaging time

	Evaluation criteria	N. of points
1.	<p>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)*</p> <p>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.</p>	28
2.	<p>Theoretical level and application of accessible sources. (0 - 30)*</p> <p>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.</p>	28
3.	<p>Scope of experimental work (SW, HW) and applied knowledge, quality of methodology and conclusions of the thesis. (0 - 30)*</p> <p>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.</p>	30
4.	<p>Formal requisites and layout of the thesis (writing mastery, structuring, graphs, tables, citations in the text, list of references etc.). (0 - 10)*</p> <p>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).</p>	9
5.	Total points	95

* Verbal evaluation should be part of the Comments

III. PROPOSED QUESTIONS FOR THE DEFENSE (OPTIONAL)

1.

2.

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

** 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 work presented for review deals with very current, though complex issues, often overlooked in the daily work of medical personnel.

The work is divided into 7 parts plus attachments. The workflow is clear, correctly run and easy to read. The bibliography is well described, although one would like it to include more items, especially those that are more well-established than websites. Sometimes the author marks a given statement as coming from the literature, although there are no similar statements in the sources (vide "Introduction", first paragraph-item in literature No. 1.).

In the case of general statements, definitions in the field of medicine or patho /- physiology, it seems more appropriate to use sources of recognized reputation and serving as medical textbooks - websites are an interesting alternative and probably a sign of the times, but scientific work should be based on well-established and valued positions.

The work is legible and transparent, without factual errors, although there are some minor editorial errors (citation markings on page 11 - it seems that both sentences come from source 4, not only the first one: Oxyhemoglobin absorbs more IR (Infrared light) because it is full of oxygen, it has a reddish color and it is brighter to the eye [4]. deoxyhemoglobin absorbs more red light than infrared light.).

It seems incorrect to expand pVI as pulmonary vein isolation, it should be pleth variability index (page 9 and 20).

The work is up-to-date, the author presents the latest data and situations related to the topic (COVID-19) in an interesting way.

The author evaluates in the work 3 technologies of saturation measurement available in 3 different medical devices - however, she does not explain why these technologies were selected for comparison (Their availability? Their universality?) - from a scientific point of view, it seems interesting to know the selection key.

The methodology of work is noteworthy - very well planned, carried out and described. The conclusions are logical, legible and have their justification in the conducted research.

The author has full control over the collected material throughout her narrative.

The work meets the requirements for scientific work.

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Signature:

Date: