

#### I. PERSONAL AND STUDY DETAILS

Student's name:	Sugralina Dilnaz
Faculty:	Faculty of Biomedical Engineering
Study program:	<b>Biomedical and Clinical Technology</b>
Branch of study:	<b>Biomedical Technician</b>

Personal ID number: 491334

## **II. EVALUATION OF THE BACHELOR THESIS**

Mo	del tool - Rubble CDAD	
110	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)* 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.	15
2.	Theoretical level and application of accessible sources. (0 – 30)* 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.	20
3.	Scope of experimental work (SW, HW) and applied knowledge, quality of methodology and conclusions of the thesis. (0 – 30)* 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.	15
ŀ.	Formal requisites and layout of the thesis (writing mastery, structuring, graphs, tables, citations in the text, list of references etc.). (0 – 10)* 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).	0
	Takal nainta	

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

1. Could the student demonstrate at least with the help of photo documentation real set up of the bubble CPAP tool? Is this set up really working with ventilation circuit?

2. What is the difference between HFNC and CPAP therapy?

3. One of the aims of the bachelor's thesis is to allow flow control in the range 0-12 L / min with a step of 1 L / min or continuous control. Please, clarify, where in the thesis is this flow range observed or why are there only four values of flow observed?

### 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
					х	

\*\* 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

This bachelor's thesis was focused on the design and implementation of a tool for educational and laboratory measurements, based on the principle of Bubble CPAP. The proposed solution should allow the measurement of min. 1 pressure in the ventilation circuit and should allow flow control in the range 0-12 L / min with a step of 1 L / min or continuous control. The pressure measurement should be controlled and displayed using Simulink software.

There is no doubt that the student spent a lot of time on this work, but the form of writing is appalling. It is not text of a professional work.

Further, there are a lot of things insufficiently described and justified, which does not necessarily mean that they are not correct, but it is the main reason why the evaluation of this work is so low.

One example for all, there is no complete description of the real design of a tool, which student has made and there is lot of measurements which are poorly processed using tables and graphs.

In the attachment, there are supposed to be pictures of measurements, but there are only set flow values with zero corresponding values.

Name and surname incl. degrees: Ing. Václav Bláha Institution: FN Motol OZTI OBMI Contact address: V Úvalu 84, 150 06 Praha 5 Signature: .....

Date: .....