

I. PERSONAL AND STUDY DETAILS

Student's name: **Kumbhar Asawari Pratiksha As** Personal ID number: **488082**
 Faculty: **Faculty of Biomedical Engineering**
 Study program: **Biomedical and Clinical Technology**
 Branch of study: **Biomedical Engineering (CEMACUBE)**

II. EVALUATION OF THE MASTER THESIS

Masters's thesis title in English:

A computational biomechanics study of the Chiari-Syringomyelia complex - Mechanics of Spinal Cord

	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 diploma 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. It is compulsory to state the aim of the thesis in the introduction.</p>	22
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 and sources.</p>	22
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 has practical implications for a particular organization and can be applied there. Maximum number of points can also be given to a thesis, which is important for improvement of the theoretical knowledge. This aspect is particularly judged with respect to publishing. For minor methodological flaws, the assessment can be reduced by up to 5 points. Inconsistency of elaboration and 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 writing papers, patents and utility models.</p>	22
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 judges formal requisites with respect to rules of writing, attributes of final works i.e. text formatting, structure of the thesis, list of references, graphs and tables, manner of citation. 2 points are subtracted for each noncompliance. 2 - 4 points are subtracted for grammatical mistakes, spelling mistakes, improper stylistics and terminology. Only standard terminology should be used especially in the English language (ability to express oneself with the use of professional language should be judged - 2 points), if graphs are created according to the rules (see tolerance and influence of statistical processing - 2 points), if there are relevant captions for graphs and tables and that everything is readable (2 points), citation rules ISO690 and ISO690-2 are observed (2 points).</p>	6
5.	Total points	72

* Verbal evaluation should be part of the Comments

III. PROPOSED QUESTIONS FOR THE DEFENSE (OPTIONAL)

1. The author of the thesis should clearly state, what was the author's contribution to solving the projects tasks.
2. What part of this work is valued most by the author?
3. What was the main obstacle to realization works?

IV. THE OVERALL ASSESSMENT OF THE LEVEL OF THE MASTER 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
	<input type="checkbox"/>	<input type="checkbox"/>	X	<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 master thesis and I recommend/~~do not recommend~~ it for the defence.

V. COMMENTS

The objective of the master's thesis is to construct computational mechanical model of spinal cord affected by Chiari malformation and exhibiting syringomyelia.
Both abstracts say that Impulse response of 0.38 mm Hg/ 5 cm H₂O was used in the model, which seems to me rather unrealistic, too low, and 1000 times the value would be too high. Please explain. The figure legends are mostly sketchy, otherwise the figures are instructive enough. Figures 31, 35, 43 and 40 show only sine wave. Figure 40: Please explain whether the data points are a bit too sparse? Figure 33 CT data are OK. Fig 43, are these rectified sine function, or alike? Total 63 Figures. Literary references look OK.

Name and surname incl. degrees: prof. MUDr. RNDr. Petr Maršálek, Ph.D.
Institution: 1.LF UK Praha
Contact address: Kateřinská 32, 121 08 Praha 2

Signature:
Date: