

## DIPLOMA THESIS EVALUATION

**Student's name and surname:** Runer Shiloh Salonga

**Name of the diploma thesis:** Analysis Tool for the Evaluation of Measurement of the Single Bubble and Bubbles Structures Dynamic

**Supervisor of the thesis:** Ing. Miloš Müller, PhD.

### 1. Diploma thesis evaluation

Evaluation	excellent	excellent minus	very good	very good minus	good	failed
Meeting the goal and fulfilling task of the thesis	X					
Quality of conducted survey			X			
Methodology of solutions		X				
Expert level of the thesis		X				
Merit of the thesis and its potential applicability of results		X				
Formal and graphic level of the thesis			X			
Student's personal approach		X				

Mark x in the corresponding box.

Supervisor's final evaluation is based on his/her overall subjective evaluation.

Grading is stated literally in the article no. 5, neither by a number, nor by a letter.

### 2. Comments and remarks on diploma thesis:

#### Quality of conducted survey

The research should include more information about the effects, which are later discoursed later in the results evaluation parts (6 Results and Analysis). There is no summary of the literature survey applicable in thesis is given.

#### Methodology of solutions

From the experimental setup is not clear which electrodes junction concepts were used for the single and dual bubble dynamic. Schematic figure of the junction configuration should be presented. No comparison between the results obtained in the thesis and the data from the literature is given.

#### Expert level of the thesis

The author presents large amount of results in form of signals and camera records, however without their interpretation regarding the cavitation phenomena.



### **Merit of the thesis and its potential applicability of results**

The developed tool can be used in the cavitation studies for the evaluation of graphical and sensors data from measurements. For the practical utilization the tool should be supplemented with some user friendly graphical interface.

### **Formal and graphic level of the thesis**

There are some typing errors in the text probably caused by improper fonts. Some charts in the results evaluation are presented without units (Figure 5.1., Figure 5.2.).

### **Student's personal approach**

The representation of results in tables on Figure 6.12. to 6.15. are not clear. Presentation in separated charts would be more beneficial. The explanation of the trends in the chapter 6.2 The Two-Bubble Waveform is chaotic. Sometimes the author mixes the voltage and force results, which are in principle identical. Some charts in the force evaluation are presented in the form of voltage (Figure 6.16.). The calibration constant should be used for the recalculation.

### **3. Questions about diploma thesis:**

How is limited the minimum bubble size in the experiment?

Which bubble collapse patterns according to the chapter "1.2.4 Collapse Patterns" you can indicate in your results for the single and for the multiply bubble.

### **4. Supervisor's statement on results of the inspection carried out by the anti-plagiarism program in the STAG system:**

The anti-plagiarism program in the STAG system indicates 0% of similarities

### **5. Supervisor's grading of the diploma thesis:**

Excellent minus

Date: 21.5.2019, in Liberec

  
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Supervisor's signature