

## DIPLOMA THESIS EVALUATION

**Student's name and surname:** Phan Menghuot

**Name of the diploma thesis:** Piezoelectric film sensors for the cavitation impact measurement

**Supervisor of the thesis:** Ing. Miloš Müller, Ph.D.

### 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:

The thesis fulfills all the tasks and goals given in the assignment.

One of the produced sensors was used for the measurement of the cavitation field produced by ultrasonic horn, which is illustrated in the Figure 4.9 as voltage signal. But the calibration constants were to be applied to give the values of forces.

There are some typing errors in the text and charts description. As a number of tests for the same parameters have been conducted, an error analysis should be valuable. From the measurement it is not clear whether the various sensors of the same size were used for the measurement of curves given in Figure 3.15 to Figure 3.17.

The manufactured sensors show better performance than the commercial variant with the advantage of possible manufacturing of any size of the sensor active area.

### 3. Questions about diploma thesis:

Is there any limit in size for the sensors production?

Is there any maximum load which can be applied to the produced sensors?

Can the material of the surface, on which the sensors are applied, influence the sensor response?


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

The anti-plagiarism system included in STAG indicates no similarities with other documents.

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

**The diploma thesis meets the academic title requirements and I recommend this thesis for the defense.**

Date: 18.6.2020, in Liberec

  
.....  
Supervisor's signature

