

I. IDENTIFICATION DATA

Thesis name:	Alcohol content measurement within the fermentation process.
Author's name:	Gil Goldman
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Dept. of Control Engineering
Thesis supervisor:	Doc. Ing. Jiří Novák, Ph.D.
Supervisor's department:	Dept. of Measurement

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	ordinarily challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
Assignment theme comes from student. I found it interesting as number of small breweries is quickly increasing worldwide.	

Satisfaction of assignment	fulfilled with minor objections
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
All assignment points were fulfilled except of the fourth one, which was, nevertheless, optional. The reporting of predicted final time of fermentation process to user is not finished. Its incorporation should not be a serious issue taking into account the computing platform, which is equipped with the wireless interface.	

Activity and independence when creating final thesis	B - very good.
<i>Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.</i>	
Student was active over the whole period of work. It introduced the topic of assignment, read additional literature and he was in close relation with several home brewery owners. Also within the second half of working period he was active, but without personal consultations, using only email. This is probably the reason why the final results are not so good as they could be, as some issues were identified too late.	

Technical level	D - satisfactory.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
The idea for very low-cost technology based on hydrometer displacement measurement is interesting. Student designed and implemented a measurement system that fulfils user requirements. I miss more detailed analysis of results focused on influence of disturbing physical quantities and evaluation of results measured within real beer brewing process, which were not available in time.	

Formal and language level, scope of thesis	B - very good.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Thesis is easy to read, author's interest in topic is clearly visible. There are some mistypes and language errors but they do not affect readability of the text.	

Selection of sources, citation correctness	A - excellent.
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
All sources are correctly cited.	

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

Please insert your commentary (voluntary evaluation).

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

Analytic and implementation parts of thesis are very good, deeper analysis of results and results from actual brewing process are missing.

I evaluate handed thesis with classification grade **C - good**.

Date: **12.6.2018**

Signature: Jiří Novák