ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE

OPPONENT'S REVIEW OF FINAL THESIS

I. BASIC INFORMATION

Title:	**Noisy non-linear dynamics analysis and control design for the ball levitation set-up**
Author:	**Ing. Mehdi Badreddine Timizar**
Type of thesis:	Master thesis
Faculty:	Faculty of mechanical engineering
Depatrment:	12110 Dept. of Instrumentation and control engineering
Opponent:	Ing. Pavel Trnka
Opponent's workplace:	CTU in Prague, FME, Dept. of Instrumentation and Control Engineering

II. EVALUATION

Difficulty	**average**

Assignment compliance	**satisfied with objections**
The 1st guideline is not satisfied very well. Chapter 1 which should solve this part is poor in terms of both formal and expertise. Other guidelines have been satisfied.	

Procedure of solution	**correct**

Level of expertise	**C - good**

Formal and language level, scope of work	**E - sufficient**
Paper and electronic versions of thesis differ (1st chapter inserted). The equations are not numbered. Quantities and formulas in 1st chapter use different formalism opposite to rest of the thesis. Language level is not bad as the author is not a natural speaker, even if some unusual expressions are used. Structure of work is not bad, but chapters are unnumbered and font sizes of headers are confusing. In Chapter 4 volts are signed by lower case letter "v", it should be upper case "V". Scope of thesis (44 pages) is rather small for master thesis.	

Choice of resources, correctness of citations	**C - good**
Citations are more or less correct. List of sources is correct, but it does not follow citation standard very well.	

Other comments

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III. OVERALL RATING, QUESTIONS FOR THE DEFENSE, PROPOSED CLASSIFICATION

My questions to the author:

Which units are used in the time axes of measured step responses (figures 13 till 20). Is it "seconds" or "samples"?

The main aim – the finding the set-up model and robust controller – is solved, but low quality of thesis combined with average difficulty ld me to following classification.

I evaluate the submitted thesis by degree **D - satisfactory**

Date: 28.6.2015 Signature: