

I. IDENTIFICATION DATA

Thesis title:	Theoretical and Experimental Analysis of Induction Motor Parameters
Author's name:	Mohith Kumaran Satyan BABU
Type of thesis :	master
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Automotive, Combustion Engine, and Railway Engineering
Thesis reviewer:	Ing. Jaroslav Kaněra
Reviewer's department:	ZF Engineering Plzeň

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
Thesis assignment requires making a theoretical and experimental analysis of static and dynamic parameters of electric drive with induction motor. Student should set up a simulation of an existing motor and validate it with laboratory measurement. I am considering this topic to be challenging.	

Fulfilment of assignment	fulfilled with minor objections
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
Main scope of the thesis - simulation based on a real existing motor, is fulfilled. Obviously, experiments were focused dominantly on dynamic testing than static behavior. I am missing characteristic curve of the motor from both simulation and experimental measurement. I would suggest presenting results from simulation cases in the same chart with curves measured on a real motor, to see how the simulation reflects the reality.	
That's why I believe achieved results could be presented in a better way.	

Methodology	correct
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
I evaluate approach of the author as correct. Content is logically ordered, with deep literature survey at the beginning and the experimental part following.	

Technical level	A - excellent.
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
Thesis is technically correct. There is a deep literature survey, describing not only induction machines in general, but obviously going very deep into induction motor control problematics. It shows author had to go very deep into the topic, to be able to set up a model, which reflects design of the motor.	

Formal and language level, scope of thesis	B - very good.
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
Thesis is sufficiently extensive and organized well. Figures are properly selected; important equations are numbered. There are only a few typos. As I am not a native speaker, I cannot thoroughly assess the level of English. However I had no problems understanding the text and all the formulations.	

Selection of sources, citation correctness**B - very good.**

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

There are enough sources cited in the thesis. Website sources, which can easily disappear, should be cited with respective dates of access.

Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Please insert your comments here.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading. Pose questions that should be answered during the presentation and defense of the student's work.

Mr. Babu's thesis is focused on simulation of induction motor. Author presents a deep literature survey analyzing methods of motor control and many parameters, affecting its characteristics. This is then used for setting up a simulation of given motor. A lot of work must have been done, but I think the author is not "selling" all the results as much as he could. Therefore, I award this thesis with a grade **B - very good**.

Date: **4.2.2022**

Signature:



Jaroslav Kaněra