

## I. IDENTIFICATION DATA

<b>Thesis name:</b>	Implementation of Field Oriented Control in Simulink
<b>Author's name:</b>	Alvarez Alberto
<b>Type of thesis :</b>	master
<b>Faculty/Institute:</b>	Faculty of Electrical Engineering (FEE)
<b>Department:</b>	Department of Electric Drives and Traction
<b>Thesis reviewer:</b>	Ing. Stanislav Flígl Ph.D.
<b>Reviewer's department:</b>	European Patent Office

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>ordinarily challenging</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The thesis deals with well known problematics of Field Oriented Control of Induction Motor.	

<b>Satisfaction of assignment</b>	<b>fulfilled</b>
<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 points of assignment are mentioned in thesis.	

<b>Method of conception</b>	<b>correct</b>
<i>Assess that student has chosen correct approach or solution methods.</i>	
Thesis is developed from theory to simulation.	

<b>Technical level</b>	<b>B - very good.</b>
<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>	
Technical level of the thesis is on good level.	

<b>Formal and language level, scope of thesis</b>	<b>B - very good.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Thesis contains some typos and unclear formulation in text.	

<b>Selection of sources, citation correctness</b>	<b>A - excellent.</b>
<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>	
Sources are well selected and properly cited.	

<b>Additional commentary and evaluation</b>
<i>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.</i>
Please insert your commentary (voluntary evaluation).

### III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

*Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.*

The thesis deals with simulation model of induction motor and its control. The model is based on textbook equations. However the model outputs satisfactory results, therefore the main objective of the thesis was fulfilled. One simple strategy for sensorless estimation of the speed.

Questions:

- 1) You use MRAS speed estimator based on rotor flux, can you present any other variables/quantities used for speed estimation?
- 2) You are using speed current model for flux estimation, can you present any other?
- 3) Why is used park's transformation if FOC?

I evaluate handed thesis with classification grade **B - very good**.

Date: **28.8.2020**

Signature: