



Master thesis opponent's review

Master thesis: **Simulation of a Brushless DC Motor in ANSYS – Maxwell 3D**

Author: **Prathamesh Mukund Dusane**

Thesis supervisor: **Ing. Karel Buhr, Ph.D.**

Thesis opponent: **Ing. Tomáš Lev**

Rating (1 – 5)
(1 = best; 5 = worst):

1. Fulfillment of assignment requirements:	<input type="text" value="B"/>
2. Systematic solutions of individual tasks:	<input type="text" value="A"/>
3. Ability to apply knowledge and to use literature:	<input type="text" value="A"/>
4. Thesis formal and language level:	<input type="text" value="A"/>
5. Thesis readability and structuring:	<input type="text" value="A"/>
6. Thesis professional level:	<input type="text" value="C"/>
7. Conclusions and their formulation:	<input type="text" value="B"/>
8. Final mark evaluation (A, B, C, D, E, F):	<input type="text" value="B"/>

verbal: Very good

Brief summary evaluation of the thesis (compulsory):

Author (Prathamesh Mukund Dusane) done the literary research on the BLDC hub motors, from its very beginnings to the use in present. Physical basics of BLDC motors were also reviewed and explained.

Input data for reasonable size of propulsion of the e-bike were determined and calculated.

Author of this Master thesis acquired enough skills to control the ANSYS Maxwell 3D software, along with the ability to create design in RMxpert, and has skills to set and analyze needed simulations. Outputs of the simulations could have been explained and described in more detail, especially, where some unexpected results appeared (magnetic induction of the stator tooth $B=4T$, about 600A in thin stator wire).

However, the overall conception, conclusions, systematic solution and also language skills shown in this Master thesis were very good.

Questions:

1.

Date: 09.06.2016

Signature: