

DIPLOMA THESIS EVALUATION SUPERVISOR EVALUATION

Author name: Igor Prikhodko
Supervisor: David Lindr
Thesis title: Innovation of the Aspherical Lenses Polishing Machine

A. Abstract quality, keywords matching	Excellent minus (1-)
B. Research scope and processing	Excellent minus (1-)
C. Level of theoretical part	Very good (2)
D. Appropriateness of the methods	Excellent (1)
E. Results elaboration and discussion	Very good (2)
F. Students own contribution	Excellent (1)
G. The conclusion statement	Very good (2)
H. Fulfillment of Thesis tasks (goals)	Fulfilled
I. Structure, correctness and fulness of references	Excellent (1)
J. Typographical and language level	Good (3)
K. Formal quality (text structure, chapters order, clarity of illustrations)	Very good (2)
L. Student access (independence, activity etc.)	Excellent (1)

Comments, remarks

The theoretical part and some chapters e.g. the chapter about communication between low level devices is unnecessary comprehensive.
Typographical and language level is low. The meaning of some paragraphs is sometimes hard to be understand.
The continuity of the text is corrupted. The sequence of some chapters are reversed (e.g. the student is describing the software selection before the description of the hardware regardless that the hardware gives no opportunity to the user to choose the software etc.).
The chapters about the software and hardware selection contains inaccurate statements (Simotion Scout is not the extension of the Simatic Manager, the motion controller Simotion is not the PLC and is not based on S7-300; using "Motion control unit" instead of the drive control unit might be confusing for te reader etc.).
The control algorithm described on the page 49 etc. would be rather explained by means of flowchart.
In the formula 1.3 the arccos function is missing, but the java script in an attachment contains the correct formula.

...cont. on page 2



Overall assessment:

The student started to work on the diploma thesis at the beginning of the summer semester. It was mainly because of the fact that he spent the winter semester in Hochschule Zittau. He managed to derive the kinematics of the polishing machine mathematically and proved its correctness by means of the application create in the java script (content of the electronic attachment). The student had to learn to work with the servo drive system and motion controller. He successfully converted the algorithm from the Javascript into STL language of the Simotion Scout and prove the mathematical equations experimentally. Even though that the student has only one semester for solving the diploma thesis, he managed to fulfill all the goals of the thesis almost completely.

Questions for the defense:

1. Are you able to describe the control system configuration correctly?

Overall classification:

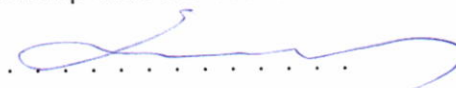
Work meets the Master degree requirements and therefore I recommend it for defense

I suggest to classify this work by grade Very good (2)

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date 9.6.2015

By signing I certify that I am not in any personal relationship with the author of the thesis



Supervisor signature