TECHNICKÁ UNIVERZITA V LIBERCI
Fakulta mechatroniky, informatiky
a mezioborových studií

DIPLOMA THESIS EVALUATION
SUPERVISOR EVALUATION

Author name: Radek Pujman
Supervisor: Ivo Noack
Thesis title: Implementation of methods of state diagnosis in an existing software application for active magnetic bearings

A. Abstract quality, keywords matching . . . . Excellent (1)

B. Research scope and processing . . . . Excellent (1)

C. Level of theoretical part . . . . Excellent (1)

D. Appropriateness of the methods . . . . Excellent (1)

E. Results elaboration and discussion . . . . Excellent (1)

F. Students own contribution . . . . Excellent (1)

G. The conclusion statement . . . . Excellent (1)

H. Fulfillment of Thesis tasks (goals) . . . . Fulfiled

I. Structure, correctness and fulness of references . . . . Excellent minus (1-)

J. Typographical and language level . . . . Excellent (1)

K. Formal quality . . . . Excellent (1)
   (text structure, chapters order, clarity of illustrations)

L. Student access (independence, activity etc.) . . . . Excellent (1)

Comments, remarks

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Overall assessment:

The scope of work was to transfer known methods of state diagnosis into a new developed software system. Thereby modern object-oriented techniques of programming should be used.
Mr. Pujman was able to get quick and independently involved into the complex theme of active magnetic bearing (AMB) and he could excelent deal with foreign-language technical literature. He managed the transfer of methods of state diagnosis, based on the work of Dr. Gärtner, onto a new platform and developed it further. Thereby Mr. Pujman also used fuzzy-rules whose interpretation and processing was devoloped by himself. Furthermore he worked out a methode to make the diagnosis results accessible to the user over modern hardware like tablets.
The results of conducted verification tests were very similar to the results of Dr. Gärtner. The results of this work serves as basis for further development of industrial AMBs. With the state diagnosis an industrial operator of such a high-technology in the future gain the ability to exploit the full potential of AMB.

Questions for the defense:

1. Did you make any performance check?
2. What should be the next steps to expand your Software.

Overall classification:

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

I suggest to classify this work by grade   Excellent (1)

In Zittau, Germany

date 01.02.2016

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

Supervisor signature