



THESIS EVALUATION SUPERVISOR EVALUATION

Author name: Monish Raghav Poorna Chandran, B.Eng.

Supervisor: Eng. Miroslav Novak, Ph.D.

Thesis title: Temperature chamber with Peltier cell

- A. Abstract quality, keywords matching..... Excellent minus (1-)
- B. Research scope and processing Very good (2)
- C. Level of theoretical part Excellent minus (1-)
- D. Appropriateness of the methods Excellent minus (1-)
- E. Results elaboration and discussion Excellent minus (1-)
- F. Students own contribution Excellent minus (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 Very good (2)
 - K. Formal quality Excellent (1)
(text structure, chapters order, clarity of illustrations)
 - L. Student access (independence, activity etc.) Very good (2)

Comments, remarks:

The presented work describes the design of a small temperature chamber with a Peltier cell. The proposal focuses on the static dimensioning of the chamber parameters. The simulation model in the Matlab PowerSim bolokset environment is also presented. Using the model, the basic transient event of a step change in the desired temperature is simulated. The functionality of the model was verified on the built temperature chamber model with more or less good agreement.

The last part of the work includes the design of a mobile application for control and monitoring of the chamber.

The student worked intensively on the solution, devoting much time to the 3D modeling of the chamber structure. He also performed FEM temperature simulations, which unfortunately are not included in the work. I praise the text part of the work, which is written logically and correctly with a minimum of typographical errors.

I believe the result could be even better if the student had better planned the time before the assignment

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Overall assessment:

I praise the physically correct analysis, the physical creation of the temperature chamber model and its verification.

Questions for the defense:

What is the required battery capacity for an hour of operation?

Plagiarism checking:

Similarity by STAG 1 % (see [www IS/STAG](http://www.IS/STAG))

Comment if similarity is above 5 %:

(!! Add your comment or more precisely explanation if the Similarity is higher and you are convinced that there is no plagiarism problem.)

Overall classification and recommendation:

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

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

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

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Supervisor signature