

I. IDENTIFICATION DATA

Thesis title:	Equipment for reheating a coffee cup by induction heatingc
Author's name:	Darshil Patel
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Instrumentation and Control Engineering
Thesis reviewer:	Ing. Jakub Čechlovský
Reviewer's department:	LATECOERE Czech Republic s.r.o.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
Due to the scope and issues of induction heating, I choose the difficulty of the work as high	

Fulfilment of assignment	fulfilled
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
All primary objectives have been met. A thermal model has been created and the required energy has been calculated for multiple desired mug temperatures. The mug heating device was created and met all expectations.	

Methodology	correct
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
The student has correctly selected the design methodology for the mug warming device. He first correctly addressed the issue of induction heating, finding the correct information to draw from when designing the device in Chapter 4.	

Technical level	B - very good.
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
The student described the issue clearly and extensively. The AGROS outputs are clear and the work is easy to understand. The student uses his/her knowledge from his/her bachelor studies in the thesis.	

Formal and language level, scope of thesis	A - excellent.
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
The work is above average in scope and logically organized. The language is clear and the English is satisfactory.	

Selection of sources, citation correctness	B - very good.
<i>Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?</i>	
The quotations correspond to the standards. Their selection is adequate and their number is above average for the range of bachelor theses.	

Additional commentary and evaluation (optional)
<i>Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.</i>
I rate the work as very high quality. In the introductory part of the work there is an extensive description of the problem and description of the individual tips used in the components. The work is fluent and follows one axis of thought. The simulation was done correctly as it matched the result of the experiment.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading. Pose questions that should be answered during the presentation and defense of the student's work.

The student has completed the assignment

in the first part described the types of induction heating and their use in practice. In the next part he described topologies and components affecting induction heating. He then discussed the design of the device itself, describing the components and equipment used. In the last part of the bachelor thesis the student dealt with calculations and modelling in the AGROS system. The thesis is comprehensive, the objectives are met. Despite the difficulty of the assignment, I find the thesis easy to understand.

The grade that I award for the thesis is **A - excellent**.

Question:

Since this is a mug, the beverage will be gradually sipped and the required power of the device will decrease. How would you regulate the power depending on the filling of the mug ?

Date: **26.8.2022**

Signature: