

I. IDENTIFICATION DATA

Thesis title:	Implementation of Industry 4.0
Author's name:	Karunanayakage Saradha Tharusha Desilva
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Instrumentation and Control Engineering
Thesis reviewer:	Ing. Miroslav Kotouček
Reviewer's department:	P-D Refractories CZ a.s.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
Our company is very different in term of production and that is the reason, why designing some kind of optimization is very hard. The task was very complex.	

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>	
The official assignment was fulfilled.	

Methodology	correct
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
The design of optimization was made after previous analysis of the company's production processes. This is the best way to approach such task. The analysis and optimization proposal themselves are correct for the company's future milestones.	

Technical level	A - excellent.
<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>	
In the work, student used good sources and knowledge in the field and paired it with the data and knowledge from the company. The technical aspects of the design are based on current technical trends and usable in the company. The technical level of thesis is high.	

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 thesis is written in good style and the scope of the thesis is very big for bachelor work. Sometimes in the work, our company is written PD instead of P-D. This plus minor mistakes are not affecting the quality of the thesis.	

Selection of sources, citation correctness	A - excellent.
<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 number of sources is high and their quality is sufficient. From our knowledge, it is hard to find any knowledge of production optimization in the ceramic/refractory industry, but the used sources are correct, also citation in text are correct.	

Additional commentary and evaluation (optional)

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.

Please insert your comments here.

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 presented thesis is done in good quality and volume. The student has done the analysis of the company first and designed the optimization proposal based on the facts from the analysis. The proposals are logical and technically correct. They could be used in the company and they are within the company's future intentions. For the implementation of such ideas, there are still many steps, that need to be done firstly, but these steps are also mentioned in the thesis. I fully recommend the submitted work for defense.

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

Date: **19.1.2022**

Signature: Ing. Miroslav Kotouček