



OPPONENT'S ASSESSMENT ON DIPLOMA THESIS

Student's name and surname: Sawant Saurabh Subhash

Name of the diploma thesis: The optimization of the automated logistic system of the battery assembly line.

Supervisor of the thesis: Ing. František Koblasa, Ph.D.

Opponent: Ing. Jakub Michálek

1. Diploma thesis evaluation

Evaluation	excellent	excellent minus	very good	very good minus	good	failed
Meeting the goal and fulfilling task of the thesis	x					
Quality of conducted survey	x					
Methodology of solutions		x				
Expert level of the thesis	x					
Merit of the thesis and its potential applicability of results		x				
Formal and graphic level of the thesis	x					

Mark x in the corresponding box.

Supervisor's final evaluation is based on his/her overall subjective evaluation.

Grading is stated literally in the article no. 5, neither by a number, nor by a letter.

2. Comments and remarks on diploma thesis:

The student covered well the issue of AGV, which is more and more important in today's fluctuating times. This pressure for automation may increase further in the future. The AGV analysis is comprehensive and sufficiently clear. The actual analysis of the AGV in the GS3.1 and GS3.2 project corresponds to reality. The actual setup of the simulation and its execution through individual experiments exceeded our expectations. Conclusions are accurate and detailed. As an opponent, I just have to agree with the proposed number of AGVs at this workload, which can never be reached in real operation to 100 percent. There is also room for sudden blockages outside the discrete simulation (forklifts, manual handling equipment, pedestrians...). Unfortunately, these effects are not controlled within the simulation, but thanks to the lower speed on the straight, this problem is generally contained. However, the results will be used for this and other similar projects.

3. Questions about diploma thesis:

1. What charging characteristic was set for an AGV during movement in the simulation?
2. Why is a weekly output 1400 pallets, when real is lower (Figure 52)?

4. Opponent's statement whether the diploma thesis meets the academic title requirements and whether it is recommended for defense: Yes

5. Opponent's grading:

The author fulfilled all the goals of the work and chose the discrete simulation method, which he mastered excellently, including the conclusions. Therefore, I propose an overall grading of excellent.

Date24.05.2024....., in Liberec

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Opponent's signature