

## OPPONENT'S ASSESSMENT ON DIPLOMA THESIS

Student's name and surname: Prabhu Nattamai Balakrishnan

Name of the diploma thesis:

Production line for the Armrest in the company BOS Klášterec nad Ohří

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

Opponent: Ing. Vítězslav Ernest, General Manager BOS Automotive Products CZ, s.r.o.

### 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				
Student's personal approach	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 topic of the thesis is based on the practical requirement of BOS Automotive Products CZ s.r.o. in Klášterec nad Ohří. The main task of the thesis was to design a workplace layout with the aim of saving production area and increasing the efficiency of the production line. The quantification is stated in the diploma thesis together with partial tasks.

The results and conclusions of the thesis meet the requirements of the assigned task. In his work, the graduate proceeds in a clear and structured manner, studying the background of production systems, principles of lean production and logistics. He focused on work organization, ergonomics and operator qualifications. The graduate has studied a number of methods he describes in the theoretical part. He focused on creating layouts, analysing and measuring work, capacity calculations, customer cycle calculations and internal logistics requirements.

In the theoretical part, the graduate describes exhaustively the rules of lean production. In his research student focused on lean manufacturing methods and their use. It also mentions the requirements of the automotive industry. In the literature search I lack examples of the current solution of the problem. The practical part reflects the studied theory. The graduate follows the principles of project management and industrial engineering.

### 3. Questions about diploma thesis:

- a) What is the bottleneck in the process? How is the bottleneck in production working?
- b) Why is it important to follow the DMAIC project phase?
- c) Name the types of waste. Which type do you think is the most significant waste?

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

As a whole, the results and conclusions of the thesis meet the requirements of the assigned task. Student used the available project management, production planning and production organization documentation. It is evident that he has consistently become familiar with the issue. The assignment is solved by the diploma thesis excellently.

The diploma thesis is formally processed correctly. The study shows quantification of benefits. I recommend the thesis for defense.

### 5. Opponent's grading:

EXCELLENT

Date 10.5.2019, in Liberec

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*Opponent's signature*

