TECHNICKÁ UNIVERZITA V LIBERCI
Faculty of Mechanical Engineering

Department of Manufacturing Systems and Automation

DIPLOMA THESIS EVALUATION

Author name: Vaira Prakash Muthu Mariappan
Thesis title: Vehicle for Smart Factory Model with Principle of Industry 4.0 Controlled by Arduino
Opponent name: Ing.Radek Votrubec Ph.D.
Technical University of Liberec

Evaluation aspects of the diploma thesis	Classification			
	Excellent	Very good	Good	Failed
Fulfillment of Thesis tasks		X		
Results elaboration		X		
Applicability in practice	X			
Students own contribution		X		
Conceptual approach		X		
Formal quality	X			

The aim of the diploma thesis was to create a vehicle for model of smart factory which is able to reach desired position. All targets were fulfilled. The vehicle was designed and equipped with controll system with several sensors such as ultrasonic distance sensor, sensors for following black line and the compass. The vehicle is usable for model of smart factory with principles of Industry 4.0, which is developed at our department. These principles of Industry 4.0 are described in this book.

The diploma theses has usual structure. It consists of several chapters describing used methods and used components. In the following chapters the Arduino board and created control algorithm is introduced. First the bluetooth module was used for communication between the vehicle and another components, but it was replaced and the student has recommended the wifi communication. Specific protocol to communication was not a target of the work.

Finally, the work meets the Master degree requirements and therefore I recommend it for defense.

I suggest to classify this work with grade: **very *good*.**

In Liberec on: 7.6.2017

Radek Votrubec
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