

I. IDENTIFICATION DATA

Thesis name:	Indoor SLAM using architectural plans
Author's name:	Jakub Havlíček
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Cybernetics
Thesis supervisor:	Prof. Dr.-Ing. Hartmut Bruhm
Supervisor's department:	Dept. of Engineering, Technische Hochschule Aschaffenburg (Germany)

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment <i>Evaluation of thesis difficulty of assignment.</i>	challenging
Multitude of competencies and tools required: SLAM under ROS, Gazebo simulations, image matching.	

Satisfaction of assignment <i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	fulfilled with minor objections
Goals achieved: - Localization capability of the robot relative to inventory plan - Enhances occupancy grid (EOG) = Fusion of inventory plan and occupancy grid from LIDAR sensor - Stabilization of the SLAM process in the presence of odometry errors.	
Shortcomings: <ul style="list-style-type: none"> - Software documentation not contained in thesis. - Perspectives of how to use the EOG not discussed / exploited. - Details of testing procedure not fully described (e.g. path followed by the robot during the test?)s 	

Activity and independence when creating final thesis <i>Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.</i>	C - good.
In the final phase of the project the student has shown his ability to work independently and intensively. In the beginning, however, progress was scarcely visible.	

Technical level <i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	C - good.
Technical level altogether is sound. More intensive testing with different scenarios would have been desirable.	

Formal and language level, scope of thesis <i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	A - excellent.
The student was confronted with the difficulty that some important documents were available on German language only. He mastered this situation very well. The formal quality of the thesis is excellent.	

Selection of sources, citation correctness <i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	C - good.
---	------------------

Only few, but highly relevant sources have been cited. The citations are formally correct.

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

From the feedback I received in the regular meetings with the student I conclude that work on the assignment was started much too late. My impression is that the student has an excellent potential, which he could not fully exploit due to the sub-optimal time management.

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

I evaluate handed thesis with classification grade **B - very good**.

Date: **2.6.2019**

Signature: