Classification of Bachelor Thesis – supervisor

Author of classification: Ing. Libor Štěpanec, Ph.D.
Supervisor: Ing. Libor Štěpanec, Ph.D.
Opponents: Ing. Aleš Havel, Ph.D.
Title: Remote Light Control Demonstration Device
Thesis version: 1
Student: Thinh Gia Vo

1. Assignment of the thesis.
   It was a realization work, where the student had to connect knowledge of several fields. It was one of the more demanding works. The assignment was completed and brought to a functional demonstration sample.

2. Student’s activity during the project completing.
   The student actively approached to the solution and brought suggestions for further expansion. Due to time and complexity, no major expansion has been done and can be used for further improvement.

3. Student’s activity during the process of completion.
   The content of the work was regularly consulted. The practical realization was commissioned and its functionality was verified by remote control.

4. Overall evaluation of the thesis
   The text part of the work gives a good overview and instructions on how to get familiar with the used HW and given interfaces when more detailed instructions are placed in the attachments. The final device allows demonstrating remote control not only lighting. It uses on-off control of three outputs by relay and control of one output by PWM.

5. Evaluation of the new findings contribution.
   The outputs of the work can be used for familiarization with the remote control with a focus on IoT. The resulting device can be used to demonstrate remote control not only for lighting.

6. Utilization and selection of information sources.
   Sufficient resources are used to match the topic of work. References are properly cited at work.

7. Summary evaluation.
   The work is on a very good level even in the language. There are also included detailed instructions and guidelines on how to proceed in partial cases. The outputs are also a circuit solution, a 3D model and a final demonstration device for remote control over the Internet.

8. Question for the defense of the thesis.
   1. Can you define condition or situation when PWM will show the constant value of the analogue signal?
   2. Please define the outputs of the device from the perspective of connected loads and further expansion.
   3. What is the voltage range for the relay used?

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Overall classification: excellent

Ostrava, 23.05.2019

Ing. Libor Štěpanec, Ph.D.