THESIS REVIEWER'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Wireless replacement of CAN based communication**
Author's name:	**Denys Chereda**
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Cybernetics and Robotics
Thesis reviewer:	Ing. Petr Krupanský, Ph.D.
Reviewer's department:	ComAp a.s.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment   **ordinarily challenging**

How demanding was the assigned project?

The tasks on project can be considered as a medium challenging. The work aimed to provide critical assessment of the state of art of commercially available solutions. It was not expected that during the project will be found suitable commercial solution on the market to fully cover all required parameters for the specific business. The work on topic will be continued as the author suggests in the conclusion.

Fulfilment of assignment   **fulfilled**

How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

Project tasks were executed as expected. Project discovered weak points of existing CAN/Wi-fi solutions and discussed the findings of test sessions in the enough details.

Methodology   **correct**

Comment on the correctness of the approach and/or the solution methods.

Approach in project is correct in general – Introduction, overview of candidate technologies, development of prototypes for prove of concept, testing and discussion of results. However, better construction of hypotheses and systematic tracking of hypotheses to conclusions would be beneficial. Also, the testing process did not follow strictly defined scenarios with well described conditions and properties of environment (e.g. nodes in line-of-sight or not, test in open area or area with obstacles, etc.)

Technical level   **A - excellent.**

Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?

Author proved his orientation in the field sufficiently. He raises proper research questions and discusses results critically. Especially, I appreciate the thoughts about economic viability of the solutions.

Formal and language level, scope of thesis   **C - good.**

Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?

The thesis is written in the slightly informal language which I appreciated actually. It helped me to better understand conditions of tests sometimes (e.g. overnight test against better formal description of long-term multi-hour test). The thesis suffers from many typographic errors. The most serious are visible of the chart 3-9 (fat line or oscillation?) and 3-10 (description of axis). The list of abbreviations would be appreciated as well.

Selection of sources, citation correctness   **B - very good.**

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

It would be appreciated the short insight to Wi-fi technology as well to balance intro to CAN technology. The texts are not linked to the sources thoroughly. However, the structure of chapters was unambiguously linked to clearly prior art concrete technologies. So there was no problem to distinguish authors observations from the prior art.

Additional commentary and evaluation (optional)
Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Student proved high level of self-reliance and good engineering skills with minimal supervision. Especially, I appreciate his proactive approach in consultations, recommendations to following work and enthusiasm to continue in the research further.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading. Pose questions that should be answered during the presentation and defense of the student's work.

The grade that I award for the thesis is **B - very good.**

Date: **21.8.2020**   Signature: