

I. IDENTIFICATION DATA

Thesis title:	Optimization of the Remote Robot Control via Mobile Networks
Author's name:	Bc. Marek Hulec
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Radioelectronics
Thesis reviewer:	Ing. Jan Plachý, Ph.D
Reviewer's department:	Department of Telecommunications

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
The assignment's objective is to optimize end to end communication, i.e., from control device to controlled device. This is a complex task, due to many blocks in the communication chain. The assignment primary focuses on the radio part (optimization of radio resources) but in contrast to many existing works both radio parts on side of controller and controlled device are optimized jointly.	

Fulfilment of assignment	fulfilled
<i>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.</i>	
The student has covered the whole communication problem in theory. There could have been a slightly more detailed analysis and consideration of communication parts, such as HARQ process. However, these are minor details which could be done in the future work.	

Activity and independence when creating final thesis	B - very good.
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
The activity of the students was very good. The student has managed to gain wide knowledge of mobile networks and as the work has progressed he has shown more activity to manage all tasks.	

Technical level	B - very good.
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
The thesis is technically sound, but some parts could be described in more detail to avoid any ambiguity.	

Formal level and language level, scope of thesis	B - very good.
<i>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?</i>	
Both formal and language level are very good. There are some very minor issues, which do not have an impact on describing the work done.	

Selection of sources, citation correctness	B - very good.
<i>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?</i>	
The student correctly uses citations and in adequate number. There may be a couple of citations that could be added, but this would require a deeper knowledge in the area of the thesis.	



THESIS SUPERVISOR'S REPORT

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.

The student has actively worked on the thesis and has shown the capability to work on his own. What I would like to add is that the student has shown adaptability and growth in management of projects. Overall, the student has met the goals of the thesis and was only limited by the missing capabilities of the state-of-the-art platform for mobile network emulation, that is primary platform for research on the global scale.

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.

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

Date: **29.1.2024**

Signature: