

I. IDENTIFICATION DATA

Thesis title:	Machine Learning-based Dynamic Resource Allocation for 5G Services
Author's name:	Bc. Aida Madelkhanova
Type of thesis:	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Telecommunication Engineering
Thesis supervisor:	Doc. Ing. Zdeněk Bečvář, Ph.D.
Reviewer's department:	Department of Telecommunication Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
Thesis combines two areas – communication networks and machine learning, thus, I consider the assignment challenging.	

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 objectives of the thesis are fulfilled, minor variations are justified by unavailability of data sets.	

Activity and independence when creating final thesis	A - excellent.
<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 student was always well prepared for meetings, often come up with new ideas, and followed agreed schedule.	

Technical level	A - excellent.
<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 work is well and clearly explained with only minor issues such as too few details related to results and selections done in System model. However, in general the work is solid, and the contribution is clear and of a sufficient added value. The work is based on knowledge gained during studies and from literature.	

Formal level and language level, scope of thesis	C - 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>	
The thesis is well organized, easy to follow and relatively well written. However, there are quite many typos, incomplete sentences, formatting issues, and grammar errors in text. Abstract in Czech language is not easy to follow. Nevertheless, the whole thesis is written at a good level considering that neither English nor Czech are native languages of the student.	

Selection of sources, citation correctness	A - excellent.
<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 related works are sufficiently covered and properly referred in the thesis. The contribution and novel parts of the thesis are clear and well differentiated from the related works. Citations are in line with conventions in the field.	

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 thesis provides solid and novel results showing potential on exploitation of machine learning for resource allocation in mobile networks with slicing. The student is involved in double degree with EURECOM and the thesis was completed in collaboration professors in EURECOM.

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 student has demonstrated an ability to understand and solve a complex problem combining the fields of communications and machine learning. During the work on thesis, the student was very active and handle the problems individually. Moreover, the student has shown ability to work and study abroad in an international environment and team.

The grade that I award for the thesis is **A - excellent**.

Date: **27.1.2020**

Signature: