

I. IDENTIFICATION DATA

Thesis title:	Quality of Service-aware scheduling for distributed unit in Open Radio Access Network
Author's name:	Lin, Xiu-Wei
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Telecommunications Engineering
Thesis reviewer:	Lubomír Doboš
Reviewer's department:	Dpt. Of Electronic and Multimedia Telecommunications, FEI TU Kosice

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
I consider the assigned project to be more challenging with the benefit of improving the more efficient use of the spectrum 5G	

Fulfilment of assignment	fulfilled with minor objections
<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 completed the work assignment. The theoretical part is written clearly and comprehensibly. However, the practical part of the solution proposal is less clearly written. When describing the implementation of the proposed solution, I lack information about how and on which device the implementation was carried out..	

Methodology	correct
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
I consider the solution methodology is correct.	

Technical level	B - very good.
<i>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?</i>	
I consider the proposed solution to the problem to be technically correct. The student demonstrated that he was well versed in the field of NR 5G, specifically in the management of radio resources in Open RAN. Although the proposed solution can be considered correct, its description is somewhat unclear. For example, the description of the code modification (fig. 3.1-1) is very brief and somewhat unclear.	

Formal 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>	
On the formal side, the work is well organized. As I mentioned above, the description of the proposed solution and the implementation itself is difficult to read in some parts due to its brevity. In addition, I miss the list of abbreviations at work. I do not have the competence or education to assess the correctness of the English language.	

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 selection of sources is adequate, and citations meet the standards.	

Additional commentary and evaluation (optional)
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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 overall quality of the thesis is on very good level. The proposal of solution for RRM in ORAN is new and could have impact on enhancement spectrum utilization in NR 5G. Weaknesses of thesis I mentioned above.

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

My questions:

1. On page 27 you claim: "To achieve full loading, we adjusted parameters by increasing packet size and reducing transmission intervals." But in Table 4.3.1-2 and 4.3.1-3 are packet size same, only transmission intervals are reduced from 8ms to 4ms
2. Why did you use in Table 4.3.1-2 and 4.3.1-3 the values listed in the priority level column? Is clear, that
3. Figure 4.3.4-1 compares the processing time between QoS-aware SCH, FCFS SCH, and slice-enabled SCH. How is the traffic distributed in slice-enabled SCH? Is each traffic in one single slice, or all four in one slice.

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

Date: **7.6.2024**

Signature: