Surname: __Demirci__   Given Name(s): __Yekta__

Department: __Electrical & Computer Engineering__ Email: __ydemirci@uwaterloo.ca__   ID #: __20837581__

End of display period: __January 19, 2022__

Thesis Title: __WRR based Two-Level Slice Scheduler for 5G RAN Sharing in the context of Neutral__ Host
Final thesis title (if changed): _____

A MASc Thesis Acceptance Form will be prepared by the Engineering Graduate Studies Office following the 15 business day display period, after all acceptance signatures have been obtained, course requirements have been verified, and the final thesis title has been confirmed.

Readers: Please complete reading within 3 weeks of receipt of thesis.

Reader Name	Supervisor	Department	Corrections Required	Signature	Date
Mahesh Tripunitara	☒	ECE	☐	_____	_____
Catherine Rosenberg	☒	ECE	☐	_____	_____
Werner Dietl	☐	ECE	☐	_____	_____
Patrick Mitran	☐	ECE	☐	_____	_____
_____	☐	_____	☐	_____	_____

By signing, you are confirming that the thesis has been completed to your satisfaction and is now ready for acceptance. If you have required minor corrections to be made, you may withhold your signature until you have seen and approved the changes in the revised thesis.

The supervisor(s) and student agree to the following embargo length:

☒ None   ☐ 4 months   ☐ 1 year   ☐ 2 years

_____   _____   _____   _____
Candidate's Supervisor (1)   Date   Candidate's Supervisor (2)   Date

Students must complete all program and course requirements before they can submit their thesis to UW Space. Before approving this form the Associate Chair or department coordinator must confirm this student has met all of the requirements of their program with the exception of the Thesis Acceptance.

Check to confirm all program requirements have been met: ☐ Dept. initial _____ Date _____

_____   _____
Associate Chair, Graduate Studies   Date

Re: Final version of the thesis

Mahesh Tripunitara <tripunit@uwaterloo.ca>
Wed 2022-01-19 8:56 AM
To: Yekta Demirci <ydemirci@uwaterloo.ca>

I accept this thesis.

Mahesh Tripunitara
--
ECE, University of Waterloo
https://ece.uwaterloo.ca/~tripunit/

From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: January 18, 2022 8:09 PM
To: Mahesh Tripunitara <tripunit@uwaterloo.ca>; Catherine Rosenberg
<cath@uwaterloo.ca>
Subject: Final version of the thesis

Hi Professor Mahesh and Professor Catherine,

I have completed updating the thesis, considering the feedbacks provided by Prof. Mitran
and Prof. Dietl. Besides the corrections:

1. p43: I appended a runtime analysis of the implemented WRR algorithm.
2. p54: I fairly updated the experiment results, including new transmission time plots.
3. p68: The conclusion is fairly changed.

May I kindly ask if you would approve me sending this version of the thesis to EGSO (as the
final version of the thesis)?

Kind regards,

Yekta

Your thesis

Catherine Rosenberg <cath@uwaterloo.ca>
Fri 2022-01-21 4:45 PM
To: Yekta Demirci <ydemirci@uwaterloo.ca>

Hi Yekta,
I approve your thesis.
Tell me if you need anything else from me.
Congrats,
Catherine

Prof. Catherine Rosenberg
Canada Research Chair in the Future Internet
Cisco Research Chair in 5G Systems
Department of Electrical and Computer Engineering
University of Waterloo
200 University Avenue West
Waterloo, ON, N2L 3G1, Canada
Tel: +1-519-888-4510
Web: https://uwaterloo.ca/scholar/cath/

Re: The MASc thesis

Werner Dietl <werner.dietl@uwaterloo.ca>
Tue 2022-01-18 9:27 PM
To: Yekta Demirci <ydemirci@uwaterloo.ca>

Hi Yekta,

I approve your thesis.

Best,
cu, WMD.

_____

From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: Tuesday, January 18, 2022 20:09
To: Werner Dietl
Subject: Re: The MASc thesis

Hi Professor Dietl,

Firstly, I am sorry for the late email. I have completed updating the thesis. Besides the corrections:

1. p43: I appended a runtime analysis of the implemented WRR algorithm.
2. p54: I fairly updated the experiment results, including new transmission time plots.
3. p68: The conclusion is fairly changed.

May I kindly ask if you would approve me sending this version of the thesis to EGSO (as the final version of the thesis)?

Kind regards,

Yekta

_____

From: Werner Dietl <werner.dietl@uwaterloo.ca>
Sent: January 11, 2022 2:45 PM
To: Yekta Demirci <ydemirci@uwaterloo.ca>
Subject: Re: The MASc thesis

Hi Yekta,

You got the high-level bit of my comments from my questions and the discussion after the seminar: a clearer highlight of the contributions would be useful to see.

A few small details I noticed while going through your thesis:
- In the abstract it would be good to write out all abbreviations - it should be readable stand-alone. It uses RAN, VNO, PRB and a few others without spelling out.
- "We assume, the RAN infrastructure..." Is the comma needed?
- "State of The Art (SOA)" Here the "T" is capitalized, elsewhere the O.
- Last sentence: "better system throughput in overall however..." Is the "in" needed?

Maybe a comma before the "however".
- Maybe go through it with the writing center - I think usually a thesis is written in present tense, not past tense as you use in the abstract.

- p4: "network using in the emulation" odd wording
- In a few places you write "At the line x of Algorithm (1)" The "the" is a bit odd. Also, elsewhere you don't put the algorithm number in parenthesis.
- p14: "It is the RR-based algorithm given in 1. Should this be "Algorithm 1"? Or some other refernce?
- p16: "The source codes are open-source and they are subject to change." It's not clear to me what the "subject to change" should mean. Is that a positive or a negative??
- p17: "Before setting up the AOI platform..." should that be OAI?
- Ubuntu versions follow the pattern YY.MM. So there is no Ubuntu 20, only 20.04 or 20.10.
- "By the time I am using:" isn't a complete sentence. Here you also start switching between "I" and "we".
- You sometimes use an italic font for things that would be better as code font/tt. For example, the "- - phy_simulators" flag looks really ugly. Elsewhere you have menus where the -> also is very poorly laid out.
- I find the white text on black background command-line fragments rather ugly. As noted earlier, some of these details seem better for a user manual/tutorial than a thesis.
- p19: "I leave the link here https..." and "I couldn't manage to..." are odd sentences for a thesis.
- "By the time, I am using..." Odd wording.
- p20: "Configuretion" should be "Configuration".
- "For the above SIM configuration... " should refer to Fig. 4.3"
- Some of the screenshots are really hard to read, at least on my black & white device. It would be much easier to just have the text in a figure.
- p22: Technically speaking... 256 UEs. However, ..." next paragraph: "Ideally speaking ... 256 UEs. However, ..." These four sentences say the same thing twice?
- p25: The code at the bottom shows just the cd commands and a comment for what to copy. Either also show the copy command or just describe it. Again, this seems like the wrong level of abstraction for a thesis.
- p35: "right after calibrate line" Odd line break after "after".
- p42: "the Algorithm given in 2 at..." the "in 2" is odd. Figure 2? Alg. 2?
- "Once the licensing concern is handled..." This is out of context, I have no idea what this is talking about.
- Code blocks that just say "Edit file" don't really add anything other than the file name.
- p53: "Figure 6.4 which is consistent with distribution given in Figure 6.2." Odd wording. Shouldn't this be 6.3?
- Figures 6.6 and 6.8 (maybe others) could use nicer LaTeX tables instead of ASCII art.
- p60: "a detailed configuration guides" and "to the slices which has less" Both sentences have mismatches between singular and plural.

I hope some of these comments are useful in preparing your final version.

Congratulations again!
cu, WMD.

_____
From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: Monday, December 20, 2021 14:12
To: Werner Dietl

Cc: Mahesh Tripunitara; Catherine Rosenberg
Subject: Re: The MASc thesis

Hi Professor Dietl,

Thank you very much for your reply.

Kind regards,

Yekta

_____
From: Werner Dietl <werner.dietl@uwaterloo.ca>
Sent: December 20, 2021 2:09 PM
To: Yekta Demirci <ydemirci@uwaterloo.ca>
Cc: Mahesh Tripunitara <tripunit@uwaterloo.ca>; Catherine Rosenberg
<cath@uwaterloo.ca>
Subject: Re: The MASc thesis

Hi Yekta,

I confirm receiving your thesis.

I can also make Jan. 11th at 11am for your seminar.

Best,
cu, WMD.

_____
From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: Monday, December 20, 2021 13:58
To: Werner Dietl
Cc: Mahesh Tripunitara; Catherine Rosenberg
Subject: The MASc thesis

Hi Professor Dietl,
(Professor Mahesh and Professor Catherine are cc-ed)

I have attached my thesis to this email. Could you please acknowledge its receipt?
Additionally, may I kindly ask if you would be available on the 11th of January 2022
(Tuesday) at 11 am for the master's seminar? If this is not convenient, could you please
suggest another time that day?

Kind regards,

Yekta

Re: A friendly follow-up

Patrick Mitran <pmitran@uwaterloo.ca>
Wed 2022-01-19 9:32 AM
To: Yekta Demirci <ydemirci@uwaterloo.ca>

Hi Yekta,

I approve this version of your thesis.

Regards,
Patrick

_____

From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: January 18, 2022 8:09 PM
To: Patrick Mitran
Subject: Re: A friendly follow-up

Hi Professor Mitran,

Firstly, I am sorry for the late email. I have completed updating the thesis. Besides the corrections:

1. p43: I appended a runtime analysis of the implemented WRR algorithm.
2. p54: I fairly updated the experiment results, including new transmission time plots.
3. p68: The conclusion is fairly changed.

May I kindly ask if you would approve me sending this version of the thesis to EGSO (as the final version of the thesis)?

Kind regards,

Yekta

_____

From: Patrick Mitran <pmitran@uwaterloo.ca>
Sent: January 14, 2022 2:57 PM
To: Yekta Demirci <ydemirci@uwaterloo.ca>
Subject: Re: A friendly follow-up

Hi Yekta,

please find attached my commented version of your thesis from when I read it. I has several language corrections as well as stylistic comments. You may implement any or none of these, the choice is yours.

If I do have some comments on style: a thesis is not a tutorial like you may find online. So statements in the second person such as "You can resolve this issue by ..." as well as in the singular 1st person such as "I addressed this issue by .." should be avoided.

I have already signed off on your masc seminar. If you need an more approvals let me know so I can sign off on them.

Regards,
Patrick

_____
From: Yekta Demirci <ydemirci@uwaterloo.ca>
Sent: January 14, 2022 2:11 PM
To: Patrick Mitran
Subject: A friendly follow-up

Hi Professor Mitran,

Firstly, thank you very much for being a part of the committee members and approving the seminar.

I am planning to finalize the thesis on the weekend by adding the new test results and also according to the feedback you provided during the seminar such as:

1. p12: Clarify "Available PRBs of a Meta-buffer" at the first line of Algorithm 1.
2. p13: The error about the weights of WRR algorithm, where I define wq as a ratio in [0,1] but used it as a natural number afterwards.
3. Improvise the grammar
4. Add new experimental results and update chapters 6.3 Results and 7 Conclusion

Besides, may I kindly ask if there is any revision you would ask me to do? I am hoping to send the final version of the thesis in the morning of next Monday (17th of Jan) and send the final version of the thesis to EGSO as soon as the display period ends, given the committee members approve. I wanted to write the follow-up email since I will just meet the 100% refund deadline if I can send the thesis to EGSO by the end of the display period.

Once more, thank you very much for your time.

Kind regards,

Yekta