

Some additional aspects of cyber security (IVSB) final thesis

Valdo Praust

IVSB (Cyber Security Engineering) program manager

Spring 2021

Three parts of thesis

I recommend in general to divide final thesis into three main parts:

1. What was the state of the field before your work - why and what problem did you start to solve?
2. What was your specific contribution – i.e. what is the actual content of your work?
3. What is the actual result of your work?

First part of thesis

What was the state of the field before your work - why and what problem did you start to solve?

- Please explain the background situation in detail
- Please take into account that the commission does not know the details of your area but has usually only a modest knowledge about the topic

Second part of thesis

What was your specific contribution – i.e. what is the actual content of your work?

- Emphasis on introducing and analyzing possible options - this is what shows your skills as an IT and cyber security specialist
- Please note that there are usually many different solutions to each problem. It's actually your personal job to defend your specific solution in the front of commission – i.e. to convince the commission that it is the right one in certain specific circumstances

Third part of thesis

What is the actual result of your work?

- How the result of your work suits to the (early done) environment?
- In many cases, it is also reasonable to point out a number of further issues that were raised during the performing of your personal work, but which were clearly outside the scope of your work, for future work (and/or for future times).

Typical ratios of three parts

In the written part of the work -
2/7/1 or 3/6/1

In the defence speech –
1/1/1 or 3/4/3

Thesis' relation with cyber security, I

It's generally known that security is always a feature of all IT systems, but sometimes a specific security-related work is also a clear superstructure for existing IT systems.

As the topic of the thesis must be related to cyber security (engineering), one of the three statements must be satisfied:

- 1. The problem you are solving is clearly a problem in the field of cyber security**
- 2. The problem you are solving is not a cyber security problem (it is another IT problem) but the techniques used to solve it clearly come from the field of cyber security**

Thesis' relation with cyber security, II

3. Only in an emergency case choose the problem for which neither the problem nor its solution are directly from the field of cyber security - but cyber security techniques and corresponding requirements/restrictions plays an important role for solving the actual problem.

If you choose 3rd case, you must certainly to consult your supervisor before choosing a topic, who will assess the suitability of the topic for the cyber security dissertation.