

# NISK – 2018

## Longyearbyen, Svalbard

Report for COINS Research School  
by Diana Davidova



Norwegian ICT conference took place in Longyearbyen, Norway on 18th to 20th of September 2018. It was joint conference of the Norwegian Information Security Conference, the Norwegian Conference for Organizations Use of IT, the Norwegian Information Conference and the Norwegian Conference for Education and Didactics in IT subjects.

First day before the Norwegian Information Security Conference (NIKT) was organized COINS Ph.D. seminar. Current Ph.D. candidates and already graduated Ph.Ds had talks and were sharing with participants experience they got during the study and what happen after graduation. It was really very important talks for all of the current Ph.D. students and in particular for myself. When you hear thoughts of the other Ph.D. students which coincides with your own fears, thoughts, experience and difficulties it helps a lot to understand that it is normal to feel some uncertainty. Among the graduated Ph.D. student that gave a talk, was my college Bo Sun. Her talk had title "There is always light at the end of the tunnel". And it was positive talk, which gives you faith that if you really want to get your Ph.D. nothing

can stop you. In the second part of COINS Ph.D Seminar current Ph.D. candidates were presenting their research projects, results they already got and future research plans.

On 19th of September starts the NIKT conference in parallel with other conferences and meetings. The topics of talks were included the following areas:

1. Crypto-primitives,
2. Cryptoprotocols,
3. Security Analysis,
4. Biometrics and Malware.

I want to mention a talk by **Martha Norberg Hovd**, from Simula research center at University of Bergen and **Patrick Bours** from NTNU.

Martha was presenting her latest work with title "A successful Subfield Lattice Attack on a Fully Homomorphic Encryption Scheme". In this work she explains how to apply known lattice attack to fully homomorphic schemes. Nowadays fully homomorphic encryption schemes is a very hot topic.

**Patrick Bours** presented a paper with title "Fake Chatroom Profile Detection". It was quite an interesting talk, since it is interdisciplinary research, which merges social sciences and computer science. The main goal of this research is to identify online identities with real (physical) ones. Many times occur that online identity is quite different from real one. It can be quite dangerous when you do not know whom you are talking with, especially it refers to children. Nowadays almost every child has an account in some social network or almost free access to the internet. It is very important to understand whom with children are contacted and have conversations. Based on the words, formalization of sentences, punctuation and etc. it is possible to understand if a person is adult or a child. The presented project is a collaboration project of Patrick Bours with Parisa Rezaee Borj and Guoqiang Li.

The last talk that I want to mention is on the topic "Assessing face image quality with LSTMs". This is a joint paper of **Tommy Thorsen, Pankaj Wasnik, Christoph Busch, R. Raghavendra and Kiran Raja**. Face recognition is very important in our days and many devices use it as "password". As much face recognition gets popular as much we need better methods to protect data from third parties. Also it is very important to increase the quality of face image. The authors while investigating this question were using machine learning techniques. Which itself is a very modern and hot topic in present.

I want to express my appreciation to COINS for giving me such a great opportunity of participating in this conference, to meet many interesting people and get more knowledge about the hottest topics of our days related to computer science. I want also mention the place of the conference. it was a great chance to get experience of being in a such interesting and authentic place as Svalbard, and in particular, to get experience of coal mining.