NTNU CCIS and SFI NORCICS Joint conference 2022

November 23rd

Time	Description
08:00-08:30	**Opening and registration**
08:30-09:00	**Welcome**
09:00-09:30	**Keynote:** *A view into some aspects of OT – IT integration in the Norwegian petroleum industry* Asbjørn Ueland, Principal Engineer, Petroleum Safety Authority
09:30-10:00	**Keynote:** *The 5G path in Telenor Research: Success stories, lessons learned and future steps* Andres Gonzalez, Automation Architect, Telenor Norway
10:00-10:30	**Keynote:** *Human and organizational aspects around cybersecurity in peace and conflict* Sigurður Emil Pálsson, Researcher, Operations Branch of the NATO CCDCOE
10:30-11:00	**Keynote:** *Using Hansken for collaborative, transparent and scalable digital forensic investigation, prosecution and fair trials in cyber crimes* Dr. ir. Hans Henseler, Digital forensic advisor OK Hansken, Netherlands Forensic Institute
11:00-12:00	**Lunch break and exhibition**
12:00-12:30	**Keynote:** *Industrial Cybersecurity in Times of Increasing IT/OT Convergence and Regulation* Manuel Ifland, Principal Industrial Cybersecurity Consultant, Siemens Energy Global GmbH & Co. KG Cybersecurity

12:30-13:00	**Panel discussion:** *IT & OT integration* Asbjørn Ueland (Petroleum Safety Authority), Manuel Ifland (Siemens Energy), Trond Solberg (Defendable AS), Judith Rossebo (ABB), Michail Maniatakos (New York University)
13:00-13:30	**Keynote:** *Regulatory challenges with 5G* Alexander Iversen, Chief Advisor Security, Norwegian Communications Authority (NKom)
13:30-14:00	**Panel discussion:** *5G* Andres Gonzalez (Telenor Norway), Alexander Iversen (NKom), Petter Olsen (Bouvet), Thomas Zinner (NTNU IIK)
14:00-14:30	**Coffee break**
14:30-15:00	**Keynote:** *To game or not to game? Using serious games for cyber security education* Dr. Andreas Haggman, Head of Cyber Advocacy - Skills, Innovation and Research, Department for Digital, Culture, Media and Sport (DCMS) UK
15:00-15:30	**Panel discussion:** *Human and Organizational Aspects* Sigurður Emil Pálsson (NATO CCDCOE), Dr. Andreas Haggman (DCMS UK)
15:30-16:00	**Keynote:** *The impact of the European AI Act on Data Analytics* Inger Marie Sunde, Professor of Law, Norwegian Police University College
16:00-16:30	**Panel discussion:** *Data Analytics* Dr. ir. Hans Henseler (Netherlands Forensic Institute), Inger Marie Sunde (Norwegian Police University College), Erik Alexander Løkken (Mnemonic), Michael Golding (Yara International)
16:30-16:45	**Closing remarks**

A view into some aspects of OT – IT integration in the Norwegian petroleum industry

Asbjørn Ueland

Principal Engineer
Petroleum Safety Authority

Asbjørn Ueland has been working with ICT-security for industrial control systems for decades. He was strongly involved when the petroleum industry in Norway developed the guideline NOROG 104 and did also take part in similar work from DNV, the recommended practice DNV RP-G108. The last 10 years he has supervised most of the audits done by the Petroleum Safety Authority Norway within ICTY security. He graduated from NTH in 1979 and has been working with industrial control systems in the petroleum industry since 1988.

About the keynote:

The petroleum industry is a large consumer of computing power, ranging from processing of seismic data to digital twins populated with live data from the facilities. In the presentation, I will discuss some of the interfaces between the engineering and operation IT domain and the OT systems for drilling of wells and the control and safety systems used for the production of oil and gas.

The 5G path in Telenor Research: Success stories, lessons learned and future steps

Andres Gonzalez

Automation Architect
Telenor Norway

Andres Gonzalez is an Automation Architect and former Senior Researcher in Telenor, working in the development of 5G since 2013. He holds a Ph.D in Telematics from NTNU, and he has worked as main technical architect in the implementation on several 5G trials, among others, the winner of the MWC Glomo Award 2021, and in several trials with the Norwegian Armed Forces considered by NATO in 2021 as the most advanced ongoing 5G-trials in Europe (https://ccdcoe.org/uploads/2021/10/Report_Supply_Chain_and_Network_Security_for_Military_5G_Networks.pdf)

About the keynote:

Telenor Research in the framework of the 5G-VINNI and 5G-FUDGE projects have implemented several 5G trials that have been recognized and awarded. This talk will provide the strategy and ambitions behind such results in the framework of the EU-H2020, and relevant key technical details considered during the implementation. Finally, the talk will provide some reflections on current state and future perspectives of 5G in Telenor.

Human and Organisational Aspects around Cybersecurity in Peace and Conflict

Sigurður Emil Pálsson

Researcher
Operations Branch of the
NATO CCDCOE

Dr. Sigurður Emil Pálsson is a researcher in the Operations Branch of the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE), on behalf of the Icelandic Ministry for Foreign Affairs. He has a PhD in physics and from 2013 to 2021 led work on cyber security strategy issues in Iceland. Prior to that he worked for decades on nuclear and radiological emergency response and radioecological research. This involved Icelandic and international response to the Chernobyl and Fukushima nuclear accidents, coordinating Nordic research projects and participating in planning many exercises, including some joint Nordic. After 2001 his work also involved technical aspects of counterterrorism.

About the keynote:

The growth of capability of computers has been exponential for more than half a century and it has been the backbone of the economic growth we have enjoyed. But has security been addressed as well as in other fields relying on new inventions? Computers and networks now play a key role in conflicts, both as targets and weapons. How do modern militaries view cyber and what is the framework for its use?

Using Hansken for collaborative, transparent and scalable digital forensic investigation, prosecution and fair trials in cyber crimes

Dr. ir. Hans Henseler

Digital forensic advisor OK Hansken
Netherlands Forensic Institute

Dr.ir. Hans Henseler is senior scientist digital forensics at the Netherlands Forensic Institute and is a part-time professor of Digital Forensics & E-Discovery at University of Applied Sciences Leiden. Hans is also chairman of the board of directors of the DFRWS conferences and has been active in the field of digital forensics for 30 years.

About the keynote:

In this keynote I will discuss the potential of Hansken for critical sectors when investigating and prosecuting cybercrimes such as ransomware attacks, espionage and sabotage. What is Hansken? Hansken is an open platform for digital forensic investigations that is begin developed by the Netherlands Forensic Science Institute since 2012 and that is being used, amongst others, by Dutch National Police and NC3 at Kripos/NCIS Norway. Hansken is built on the Digital Forensics as a Service (DFaaS) concept. It is unique because it can analyze large volumes (> 100 terabytes) of data consisting of hundreds of forensic computer and smartphone images in a single case. It is open because it offers multiple user and programming interfaces enabling both technical and non-technical investigators to collaborate on digital investigations, to integrate Hansken with other systems in the organization and it can even be used by courts to provide defense lawyers remote access to their particular dataset in a secure way.

But Hansken is more than a software platform. Digital forensic knowledge and technical innovations are shared among law enforcement agencies in the Hansken Community. Training materials are available to all partners via the Hansken Academy. Hansken tools for extraction and analysis are innovated using by data scientists in law enforcement together with academia in the Hansken Academic Network such as NTNU in Norway and the University of Applied Sciences Leiden in the Netherlands.

Industrial Cybersecurity in Times of Increasing IT/OT Convergence and Regulation

Manuel Ifland

Principal Industrial, Cybersecurity Consultant, Siemens Energy Global GmbH & Co. KG Cybersecurity

Manuel Ifland works as Principal Industrial Cybersecurity Consultant in the central cybersecurity organization at Siemens Energy in Erlangen, Germany. In his role, he supports product development and project business worldwide in questions related to cybersecurity regulation and legislation. One of his main areas of focus is the IEC 62443 standard series with a focus on the secure product development process. Manuel represents Siemens Energy in aspects of industrial and OT cybersecurity in external bodies such as the German Electro and Digital Industry Association (ZVEI), the Federation of German Industries (BDI), and the Software Assurance Forum for Excellence in Code (SAFECode).

About the keynote:

Operational technology (OT) becomes increasingly complex and interconnected and it is not uncommon that products and systems, originally developed for IT application, are used for OT purposes. This inevitably leads to increased cybersecurity risks and potentially puts our critical infrastructure at risk. Regulators have realized that and therefore increase the requirements put on critical infrastructure operators as well as manufacturers. The presentation will elaborate on how our industrial world is changing and how cybersecurity can be addressed holistically by considering the entire supply chain including all stakeholders.

Regulatory challenges with 5G

Alexander Iversen

Chief Advisor Security
Norwegian Communications Authority (NKom)

Alexander Iversen is Chief Adviser at the Norwegian Communications Authority (Nkom). His focus is on developing effective security & robustness regulation in the telecom and internet sphere, whilst facilitating technological development & innovation.

About the keynote:

5G introduces new technology, new business models and new applications to industry etc. Is the telecom security regulation directed towards the mobile operators fit for purpose?

To game or not to game? Using serious games for cyber security education

Dr. Andreas Haggman

Head of Cyber Advocacy - Skills,
Innovation and Research,
Department for Digital, Culture, Media and Sport (DCMS) UK

Dr Andreas Haggman is Head of Cyber Advocacy at the UK Department for Digital, Culture, Media and Sport. Andreas has a PhD from Royal Holloway, University of London with a thesis investigating using wargames for cyber security education. Andreas has delivered educational cyber security games for government, military, academic and private sector audiences in 8+ countries. Andreas also has experience developing scenarios for cyber incident response training.

About the keynote:

Games can be powerful learning tools. Games generate high student engagement to effectively deliver educational content. But games are not a panacea and misuse can impact learning outcomes. This talk will outline that when using games for cyber security education, with great power comes great responsibility.

The impact of the European AI Act on Data Analytics

Inger Marie Sunde

Professor of Law
Norwegian Police University College

Professor Sunde has published extensively on cybercrime and cyber investigation law, and recent years on the legal framework for use of artificial intelligence in policing. She is leader of the research group Policing and technology at the Norwegian Police University College (NPUC/ Politihøgskolen), and co-chair of the Europol Strategic Group on Ethics and Technology. Sunde was senior public prosecutor in Økokrim from 1993-2005, and established the Norwegian Cybercrime Center in the police. She then took a PhD at the law faculty in Oslo and continued an academic career at the NPUC. Sunde also has the Main course (Hovedkurset) from the Norwegian Defense University College (Forsvarets høgskole).

About the keynote:

The proposed regulation on AI adds a new layer to existing law with an impact both on law enforcement authorities, private and public organisations. The question to be addressed concerns whether and how cybersecurity measures are affected by the regulation.