

Program Overview

Sunday, June 12, 2022

all times in CEST

19:00 Informal Come Together with the Steering Committee

Monday, June 13, 2022

09:00 Registration and social networking
 10:00 Conference Opening
 10:30 **Session 1:** Applied Security & Privacy
 12:00 Lunch Break
 13:00 **Keynote by Thijs Veugen:** "Secure Multi-Party Computation and its Applications"
 14:00 Presentation by QuTech
 14:30 Excursion: Visit to QuTech Laboratories
 16:00 Tea Break
 16:30 **Session 2:** Energy Harvesting & Environment Protection
 18:00 Walk to/in Delft city Centre – Canal Cruise – Dinner

Tuesday, June 14, 2022

08:30 **Session 3:** Smart Cities & Standardization
 10:00 Coffee Break
 10:20 Announcement of I4CS 2023
 10:30 **Session 4:** Smart Mobility & Routing
 12:00 Lunch Break
 13:00 **Invited Talk by Darian Meacham:** "Back to the Future of Work: Old Questions for New Technologies"
 14:00 **Session 5:** eHealth & Infrastructures
 15:30 Tea Break & Travel
 16:15 Historical tram ride with audio guide through The Hague
 19:00 Conference Dinner at Scheveningen-Beach

Wednesday, June 15, 2022

08:30 **Session 6:** Quantum Computing
 10:30 Coffee Break
 11:00 **Invited Talk by Herwig Unger:** "Brain-Inspired Approaches to Natural Language Processing and Explainable AI"
 12:00 Lunch Break
 13:00 **Session 7:** Applied Machine Learning
 14:00 Tea Break
 14:20 Awarding Ceremony – Closing Session

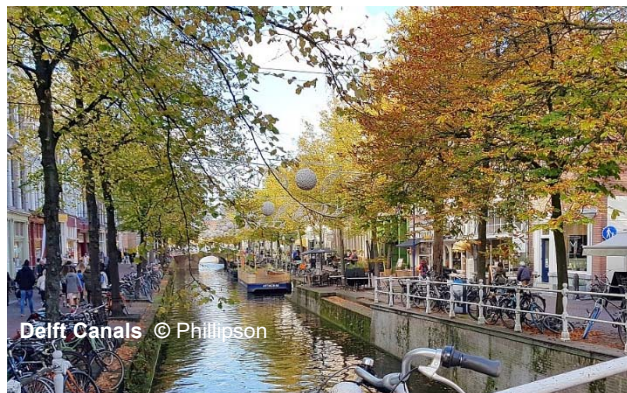


Hybrid Conference

After Corona, I4CS 2022 will be back in presence. As there are still travel limitations in some countries, the I4CS Steering Committee decided to offer a hybrid conference online via **MS Teams** and preferred, in presence at **Auditorium Conference Centre of Delft Technical University (Aula), Mekelweg 5, NL- 2628 CC Delft**

Room: Commissiekamer 3

Delft is one of the oldest cities in the Netherlands. It located in the province of South Holland, nearby Rotterdam and The Hague. Famous for its channels, it is a popular tourist destination. The rich social program of the conference will introduce you into the hidden secrets of this lovely place at the banks of many channels.



Conference Fees and Contacts

- Author rate – attendance in person incl. proceedings 380 €
- Non-author rate – attendance in person incl. proceedings 330 €
- Author rate – online participation 160 €
- Non-Author rate – online participation 80 €

For your online registration, more information and further details, please feel free to check out either

<http://www.i4cs-conference.org/>
<mailto:info@i4cs-conference.org>

or directly contact our conference chair

Frank Phillipson
 TNO ICT – Applied Cryptography & Quantum Algorithms
 Anna van Buerenplein 1
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22nd International Conference

I4CS 2022 Innovations for Community Services

June 13 – 15, 2022
 Conference Centre
 Delft, The Netherlands

Conference Program

Hosted by

TNO, Netherlands Organization for Applied Scientific Research



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Sessions in Detail

S1: Applied Security & Privacy

Jörg Roth:

A Platform for Offline Voice Assistants

Fatima Chahal, Dominique Gaiti, and Hacène Fouchal:

Consensus Algorithms in Cryptocurrency and V2X-IoT: Preliminary Study

Günter Fahrnberger:

Realtime Risk Monitoring of SSH Brute Force Attacks

S2: Energy Harvesting & Environment Protection

Michal Hodoň, Peter Ševčík, Juraj Miček, Veronika Olešániková, Peter Šarafín, Jan Kapitulík, and Lukáš Čechovič:

Solar Energy Harvesting for the Mobile Robotic Platform

Karl Seidenfad, Tobias Wagner, Razvan Hrestic, and Ulrike Lechner:

Demonstrating Feasibility of Blockchain-Driven Carbon Accounting – a Design Study and Demonstrator

S3: Smart Cities & Standardization

Lennox Kim, Frank Phillipson, and Robert Wezeman:

A Multi Service Capacitated Facility Location Problem with Stochastic Demand

Rebekka Alsvåg, Anthony Bokolo, and Sobah Abbas Petersen:

The role of a Data Marketplace for Innovation and Value-Added Services in Smart and Sustainable Cities

Dirk von Hugo, Gerald Eichler, and Behcet Sarikaya:

Challenges of Future Smart and Secure IoT Networking

S4: Smart Mobility & Routing

Jesper Slik and Sandjai Bhulai:

Understanding Human Mobility for Data-Driven Policy Making

Moritz Peter Weber and Ilenia Salvadori:

Research on Detecting Similarity in Trajectory Data and possible Use Cases

Emilien Bourdy, Marwane Ayaida, and Hacène Fouchal:

Misbehavior Verification on Cooperative Intelligent Transport System

S5: eHealth & Infrastructure

Dan Wu and Imran Shafiq Ahmad:

Emergency Evacuation Software Simulation Process for Physical Changes

Steffen Späthe, Florian Greulich, and Sebastian Apel:

Context Information Management in a Microservice Based Measurement and Processing Infrastructure

Udo Krieger and Marcel Großmann:

A Web Architecture for E-Health Applications Supporting the Efficient Multipath Transport of Medical Images

S6: Quantum Computing

Niels Neumann and Robert Wezeman:

Distributed Quantum Machine Learning

Christoph Roch, David Winderl, Claudia Linnhoff-Popien, and Sebastian Feld:

A Quantum Annealing Approach for Solving Hard Variants of the Stable Marriage Problem

Merel Schalkers and Matthias Möller:

Learning Based Hardware-Centric Quantum Circuit Generation

Frank Phillipson and Irina Chiscop:

A Quantum Approach for Tactical Capacity Management of Distributed Electricity Generation

S7: Applied Machine Learning

Pranav Kumar Singh and Bhabesh Mali:

Towards Simulating a Global Robust Model for Early Asthma Detection

Chérifa Boucetta, Laurent Hussenet, and Michel Herbin:

Practical Method for Multidimensional Data Ranking: Application for Virtual Machine Migration

Conference Proceedings

All accepted papers are included in the proceedings, published as volume No. 1585 <https://link.springer.com/book/9783031066689> in the series Communications in Computer and Information Science (CCIS) by Springer. The 22nd I4CS focuses on the traditional three key areas:



Technology:

Distributed Architectures and Frameworks

Applications:

Communities on the Move

Socialization:

Ambient Work and Living



Committees and Chairs

Steering Committee

Conference Chair:

Frank Phillipson, TNO, The Hague, The Netherlands

Steering Chair:

Gerald Eichler, Deutsche Telekom, Darmstadt, Germany

Program Chair:

Christian Erfurth, University of Applied Sciences Jena, Germany

Publication Chair:

Günter Fahrnberger, University of Hagen, Germany

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 Leendert W. M. Wienhofen, City of Trondheim, Norway



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