

DTU HIGH TECH SUMMIT

30-31 OCTOBER 2019



Technology conference on digitalisation and green solutions

Digitalization and sustainable development must go hand in hand. That is why this year's High Tech Summit focuses on digital development and sustainable solutions within climate, environment, and energy.

High Tech Summit aims to create the perfect environment for companies, start-ups, organisations and universities to meet and present their latest technological developments, debate the most recent discoveries, participate in matchmaking events, and generate ideas. In 2019, we highlight seven overall themes, including Industry 4.0 & Robotic; Big Data & Artificial Intelligence; Internet of Things; Sustainable Energy, Environment & and Climate; Business Inside Technology; Entrepreneurship; and For the Global Goals. For the first time, we offer a complete track programme over two days focusing on water - under the Sustainable Energy, Environment & and Climate theme.

Water Technology and Digitalization – special track in 2019

Worldwide today, water is critical for economic growth across virtually all sectors. Meanwhile, water-related issues such as extreme rainfall, storm surges, droughts - and the failure of climate adaptation countermeasures - pose the greatest risks for human well-being and prosperity. Hence, the SDGs point to major technological and management challenges related to water worldwide. They include the need for new water technologies utilizing new data sources, service-based business models, more intelligent products and components, more robust planning tools and more cross-cutting integration across sectors.



This overall track follows up on DTU's "Sector Development Project" on water and includes four interconnected sessions that will jointly address a subset of these challenges. Companies, universities, and other organisations will discuss recent advances in the area of water, and how embracing the new opportunities offered by digitalization can make the water sector and related sectors more efficient and innovative, and at the same time less fragmented and more sustainable. There is a need for action both politically and among the sector's stakeholders to initiate a more focused joint effort.

The timing of High Tech Summit 2019 is convenient since Copenhagen will host the 2020 version of the sector's main global event, the IWA World Water Conference & Exhibition. High Tech Summit 2019 will be the perfect occasion for taking stock of the preparations.

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| Water Technology and Digitalization (1)
Sustainability of water and resource recovery utility services
Organisers: Martin Rygaard & Anders Damgaard (<i>DTU Environment</i>), Facilitator: Jeanette Agertved (<i>EnviDan</i>) | Wednesday 30 Oct, 10:45-12:30 |
| Water Technology and Digitalization (2)
Digital tools for coastal protection and climate adaptation
Organiser/facilitator: Morten Andreas Dahl Larsen (<i>DTU Management</i>) | Wednesday 30 Oct, 14:30-16:15 |
| Water Technology and Digitalization (3)
Water for Smart Liveable Cities
Organiser: Peter Steen Mikkelsen (<i>DTU Environment</i>), Facilitator: Helle Katrine Andersen (<i>DANVA</i>) | Thursday 31 Oct, 10:00-11:45 |
| Water Technology and Digitalization (4)
Water and climate services
Organiser/facilitator: Martin Drews (<i>DTU Management</i>) | Thursday 31 Oct, 14:00-15:45 |

Water Technology and Digitalization (1) Sustainability of water and resource recovery utility services

Urban water and resource recovery systems become increasingly complex. Whether solutions are high tech or nature based, environmental impacts will happen in a complex interaction with energy systems, nature, traffic, waste management and much more. Eco-efficiency can assess the value creation of different technological scenarios and is an indispensable tool when decision makers create future water and waste management systems within the framework of the UN SDGs. In this sub-track, with focus on wastewater resource recovery, we will explore how research and industry contribute to developing solutions that are used in practice for developing utility services in a more sustainable manner.

Presentations by Mikkel Holmen Andersen (*Unisense*), Charlotte Scheutz (*DTU Environment*), Yariv Cohen (*EasyMining*), Lisbeth Ottosen (*DTU Byg*), Maria Farago (*DTU Environment*) and Per Henrik Nielsen (*VCS*). Debate on "challenges and solutions", all speakers.

Water Technology and Digitalization (2) Digital tools for coastal protection and climate adaptation

Many challenges in hazard prevention in the coastal zone need to be addressed across a range of disciplines within physical, economic and social sciences. Each of the disciplines make use of methodologies requiring vast amounts of data, processing and modelling, and a key output from the COHERENT project (IFD, 2017-2020) is a digital tool facilitating optimal decision-making for end-users. This sub-track covers the entire range from adaptation to emergency preparedness as well as from present conditions to longer-term future projections. The aim is to both facilitate debate and external opinions on the COHERENT approach, as well as to look beyond the COHERENT timeline.

Presentations by Lærke Heimdal Holm (*Halsnæs municipality*), Bo Brahtz Christensen (*DHI*), Lisa Bay (*DTU Management*), Carlo Sørensen (*Danish Coastal Authority*), Nils Drønen (*DHI*), Morten Revsbæk (*Scalgo*), Kristine Skovgaard Madsen (*DMI*) and David Konge (*Environment solutions*). Debate on "Challenges and solutions within tools to support climate hazards in the future", all speakers.

Water Technology and Digitalization (3) Water for Smart Liveable Cities

In this sub-track we will explore smart, green, holistic and liveable city solutions where water delivers basic sanitation services but also utilizes synergies between green infrastructure and intelligent systems, utilizing digitalization to empower cities to adapt to a changing climate and support the Paris Agreement, whilst improving the quality of life and well-being of society. It will be a platform for knowledge sharing that will continue up to and during the IWA World Water Conference & Exhibition, Copenhagen 2020, which has the same overarching theme and where academic institutions, utilities, industry, government, regulators and NGOs currently collaborate on the preparations for making a big splash.

Presentations by Dragan Savic (*KWR Watercycle Research Institute, NL, and chair of the IWA Digital Water Programme*), Marina Bergen Jensen (*University of Copenhagen*), Lars Schrøder (*Aarhus Water*) and Nadia Vorndran Schou Lund (*DTU Environment*). Debate on "How can the vision Water for Smart Liveable Cities drive transformations that make the water sector more efficient and innovative, less fragmented, and more sustainable?", all speakers + Henrik Dissing (*Danish Environment Protection Agency*).

Water Technology and Digitalization (4) Water and Climate Services

By adoption of the Government Strategy for Digital Growth (2018) and the ongoing development of novel digital services like the Climate Atlas by the Danish Meteorological Institute, a wide range of weather and climate data will be freely available for exploitation by both the private and public sector in the coming years. In parallel, the Copernicus Climate Data Store and Climate Services increasingly provides tailored and state-of-the-art digital water and climate services for a broad range of sectors. This track investigates, demonstrates and debates how these and other new data sources can lead to improved water and climate services and facilitate a more sustainable society.

Presentations by Eva Bøgh (*The Danish Agency for Data Supply and Efficiency*), Per S. Kaspersen (*DTU Management*), Ole Smith (*Orbicon*) and Jonas Wied Pedersen (*DTU Environment*). Panel debate with Eva Bøgh (*The Danish Agency for Data Supply and Efficiency*), Ole Smith (*Orbicon*), Lars Schrøder (*Aarhus Water*) and Karsten Arnbjerg-Nielsen (*DTU Environment*).

Exhibition Hall: Water DTU & CALL Copenhagen, Exhibition Hall G8

Water DTU (www.water.dtu.dk) aims to create a joint focus area taking advantage of possible synergies across DTU departments. CALL Copenhagen (www.callcopenhagen.dk) is a living lab for sustainable climate adaptation that builds innovative partnerships. Join us during the breaks and discuss your next water collaboration.

Participation is free, but you must sign up here: <https://www.hightechsummit.dk/>