2nd International Conference on the Design of Cyber-Secure Water Plants (DCS-Water'25)

The Water Tower, Atlanta, Georgia, USA

"Protecting water is protecting life—securing its systems is securing our future." – DCS'25 Theme

Conference: October 28-29, 2025

Cyber Defence Training: Oct 30, 2025

The 2nd International Conference on the Design of Cyber-Secure Water Plants (DCS-Water'25) is a two-day global gathering that brings together leading minds from research, industry, and government to explore and exchange innovations in protecting water infrastructure from cyber threats.

As water and wastewater treatment plants grow increasingly digitized, they become more exposed to sophisticated and targeted cyberattacks. These facilities—essential to public health, economic activity, and environmental stability—rely on complex Industrial Control Systems (ICS), including PLCs, sensors, networked control platforms, and SCADA environments. While these technologies enable efficient and automated operations, they also introduce critical vulnerabilities that adversaries can exploit.

Cyberattacks on water infrastructure can result in far-reaching consequences, such as service disruptions, infrastructure damage, and compromised water quality. With the convergence of IT and OT systems, the growing scale of interconnectivity, and the evolving threat landscape, traditional perimeter-based defenses are no longer sufficient.

DCS-Water'25 aims to drive forward the development and deployment of advanced strategies—ranging from AI-driven threat detection and digital twins to zero-trust architectures and cyber-physical testbeds—that can secure water utilities at scale. By fostering collaboration across disciplines and sectors, this conference plays a crucial role in building resilient, trustworthy, and intelligent water systems for the future.

What's new!

(a) DCS25 features a 1-day training session designed specifically for water plant operators and IT specialists. This session will be conducted in the read-blue team style where engineers

from iTrust will constitute the red team that will launch cyber-attacks while the participants will be defending the plant under attack. The format of this training session, and the tools used, will be nearly the same as that deployed during some of the world's largest cyber-exercises, such as the Locked Shields.

(b) Authors may now submit work that relates impact of attacks on the water sector to dependent utilities such as electric power, transportation, and maritime.

Submissions could cut across any of the topics listed below. Submissions fall outside the topic listed below may also be considered when they fall within the domain of securing water utilities.

- Anomaly detection in water utilities
- Case studies and practical deployments in the water sector
- Cyber-physical testbeds for validation and training
- Cybersecurity education and workforce development
- Detection of rogue components in distributed water systems
- Digital twins for cybersecurity and operational training
- Fault and attack discrimination
- Generative models (e.g., GANs) for cyber threat simulation
- Honeypots and deception techniques for threat identification
- Inter and intra cascading effects of attacks on water utilities
- Operational resilience during active cyberattacks
- Preventing cascading failures in interconnected systems
- Reducing false positives in cyber-physical threat detection
- Scalable machine learning for threat detection
- Secure IT-OT integration and real-time incident response
- Zero-trust security architecture for water systems

General Chairs:

Chair:	Jianying Zhou
Co-Chair:	Mark Goh
Publicity & Web Chair:	Vanessa Lee

Program Chairs:

Chair:	Melissa Meeker	[Abstracts]
Co-Chair:	Aditya Mathur	[Regular Submissions]
Others:	TBD	

Submission deadline:

Regular Submission: Tue Aug 5, 2025

1. Page limit: 8 pages
2. Format: IEEE Conference
3. Submission portal: EasyChair

Abstract: Tue Sept 30, 2025

1. Page limit: 1 Page
2. Format: Microsoft Word or PDF
3. Submission portal: EasyChair

Author Notification:

Regular Submission:	Tue Sept 16, 2025	
Abstracts:	Tue Oct 7, 2025	
Camera Ready Submission:	Tue Oct 7, 2025	(only regular submission)

Cyber -Security Training Registration Deadline: Tue Sept 30, 2025

Registration fees:

Full time students: US$100
All other attendees: US$250

Exhibitors and demo:

Contact: TBD

Training session:

Contact: TBD