

Pushing the Boundaries of Urban Drainage: AI, Drones, Sensors & Robotics



International conference: More than 50 experts from across the globe attended

Last week, we hosted a truly inspiring international conference in Gelsenkirchen, Germany:

“AI, Drones, Sensors and Robots for Smart Sewers and Urban Drainage 2025”

More than 50 experts from across the globe gathered to explore how cutting-edge technologies are transforming the way we inspect and manage urban drainage systems.

Key topics and contributions

- AI-powered sewer diagnostics at Tokyo Metropolitan Sewerage
- Stormwater prediction through deep learning



International case studies
from Tokyo, the UK,
Germany, Canada, and more

- Real-time data from Water and Wastewater Networks for AI analysis
- Practical AI use cases by Yorkshire Water, United Utilities, and Gelsenwasser
- Drone and sensor applications from WinCan, Andrews.Engineer, and Wirtschaftsbetriebe Duisburg
- Robotic inspection and maintenance featuring the MAC System, Pipebots from the University of Sheffield, and even Robo-Dogs from Jade Hochschule
- Cleaning-driven asset management presented by Sewer Robotics

Conference Programme 2025:

<https://bit.ly/IKT-International-Conference-2025>



Discussions and networking
sessions

International networking

In the various sessions and inbetween, participants took part in vibrant discussions and networking, proving:

The challenges in urban drainage – aging infrastructure, climate resilience, workforce shortages – are global.

Smart technologies offer new opportunities for efficient, cost-effective solutions.



Live demonstrations at IKT's test facilities gave participants hands-on insights into the latest inspection technologies.

Live demonstrations

Live demonstrations featured drone flights, IKT's MAC system for non-destructive assessment, and robotic dogs navigating sewer networks – all in IKT's test facilities.

This conference was more than just an event – it was the start of deeper international collaboration in wastewater innovation. It marks the beginning of closer international cooperation in the field. The journey continues next year!



Drain Trader Magazine, May 2025: "Pushing boundaries: reflections from the IKT conference"

Read the excellent summary of our conference, which appeared in the renowned British trade journal 'Drain Trader Magazine': Pushing boundaries: reflections from the IKT conference

Take a look at the photo impressions of this lively conference here: <https://bit.ly/Photos-Conference-2025>

In the IKT research sewer pipe, Andrews Engineers from Canada demonstrate how they inspect sewers with their drone:

RoboDog visits the International Conference on Communications and Transportation (IKT) and his owner, Prof. Dr. Sebastian Hollermann, reports on the possibilities of using him in the sewer system:

In the IKT research sewer pipe, Andrews Engineers from Canada

demonstrate how they inspect sewers with their drone.

IKT International Conference 2025: AI, Drones, Sensors and Robots for Smart Sewers and Urban Drainage



IKT International Conference
2025:

AI, Drones, Sensors and Robots
for Smart Sewers and Urban
Drainage

This international conference brings together experts and innovators to explore cutting-edge AI, robotics, and sensor technologies for real-time monitoring, predictive maintenance, and smarter infrastructure solutions.

The future of urban drainage and sewer management is here!

Key topics for Smart Sewer Systems and Urban Drainage:

- AI – How digitalization can transform their management

- Drones and Robotics – Improving safety and cost-effectiveness
- Robotics – Automating maintenance for efficiency
- Sensor Technologies for Inspection & Real-Time Data – Enhancing decision-making
- Predictive Analytics – Preventing failures before they happen

Programme:

International Conference 2025: AI, Drones, Sensors and Robots for Smart Sewers and Urban Drainage

2 – 3 April 2025

Venue

IKT – Institute for Underground Infrastructure
Gelsenkirchen / Germany

Who should attend?

Municipalities, utilities, innovation teams, engineers, industry professionals, contractors and suppliers who are shaping the future of sewer systems and urban drainage!

For delegates: Registration

For exhibitors: Registration is open

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