ICE Water Knowledge Programme 2019

Access a wealth of knowledge to grow your career
Capturing, treating and distributing water, and planning, developing and managing our water resources are central to society’s needs. Civil engineers play a key role in the delivery and management of water.

Throughout 2019, ICE Knowledge will provide water professionals with valuable tools and resources in line with the technical advances and developments in the sector to deliver sustainable, innovative infrastructure solutions.

Visit ice.org.uk/water to:

- Access the latest best practice
- Learn from project case studies
- Watch on-demand lectures and inspiring videos
- Explore journals and books
- Sign-up for training courses
- Read new blog articles written by industry experts

About ICE

The Institution of Civil Engineers (ICE) is home to over 92,000 civil engineers in more than 180 countries. Our members play a hugely important role in shaping our world and building the essential infrastructure we all depend on.

To support civil engineers meet the challenges posed by our constantly evolving world, ICE provides knowledge, professional expertise and guidance, sustainable development and connections between Government, industry and the supply chain.

ICE Knowledge

Civil engineers never stop learning and at ICE we are committed to providing lifelong career support to our members and infrastructure professionals to drive the industry forward.

ICE Knowledge is an integral part of this commitment, utilising the cross-industry expertise within the Institution to create unrivalled platform, a vast array of case studies, fact sheets, best practice and events offering unmissable opportunities to network and forge new relationships.

ICE Knowledge Partner

Wavin proudly sponsors the ICE Water Knowledge Programme 2019

Access a wealth of water engineering knowledge to grow your career
Key themes

Our knowledge programme is designed to give you the knowledge, confidence and resilience to stay relevant and competitive in the water industry. Explore resources tailored to your needs, themed around:

- Water energy
- Waste water management
- Hydrology
- Construction
- Flood control and disaster management
- Waterfront engineering
- Clean water
- Sanitation
- Sustainable urban drainage systems
- Water pollution management
- Managing water scarcity
- Water transport
- Climate change
- Structures

UN Sustainable Development Goal 6: Ensure availability and sustainable management of water and sanitation for all

The Water Knowledge Programme is aligned with the aims of the UN Sustainable Development Goal 6, providing a repository of peer knowledge and expertise to help tackle climate change and water-related challenges.

1 in 10 of the population has no access to clean water. This means a child dies from a water borne disease every 15 seconds. The burden for gathering drinking water falls largely on women and girls, who spend a back-breaking 200 million hours everyday collecting it. This is time that could be spent in school or gainful employment.

2/3rds of the world’s population could face water stress by 2050 – with the potential to fuel social, economic and environmental tensions within and between countries. The impact of climate change – droughts, floods and ecosystems degradation – will only serve to exacerbate resource-related unrest.

Water-related ecosystems – such as wetlands and mountains – underpin most of the Earth’s natural processes. But water stress is depleting aquifers, reducing river flows and degrading wildlife habitats. Unless urgently addressed, this will have devastating economic, ecological and human consequences.

Successfully balancing interrelated global demands for water, energy and food will be central to realizing sustainable development. Agriculture currently uses 70% of freshwater supplies – and the need for water will only grow as demand for food and energy is expected to rise by 50% and 35% respectively by 2050. Water efficient innovations and practices must be rolled out across all sectors to help meet growing need without degrading ecosystems.

Research suggests only 20% of global wastewater is currently being treated. The rest gets dumped untreated into water supplies – rivers, lakes and oceans. If wastewater is drunk – as happens in many water-stressed cities – or used directly in agriculture, the impacts for human health, ecosystems, biodiversity and agriculture can be considerable.

Learn more about the role of engineers in delivering the UN Sustainable Development Goals at ice.org.uk/congress

Source: Unilever for World Water Day
Key dates and events

23 January
John Mitchell Lecture 2019
This lecture will trace the development of soil and rock injection over the past 45 years and address the need for specialist skills to safeguard future development.

6 February
Joint ICE and Topcon Lecture
The sixth annual ICE and Topcon evening lecture on innovation will present key findings from a joint thought leadership report to be published in January 2019, addressing the barriers to change in the construction industry.

25 February
Engineering the Landscape - Capability Brown's Role
This lecture will celebrate the 300th anniversary of the birth of Capability Brown to recognize the significant contribution that the eighteenth-century landscape architect made to civil engineering.

5-7 March
Futurebuild
ICE’s Refill Station at Futurebuild will showcase better ways to manage surface water, explore the use of SuDS and highlight the upcoming release of Sewers for Adoption 8. Visit us at stand F160.

22 March
International World Water Day
As part of this United Nations initiative, ICE will draw attention on the importance of freshwater and sustainable management of resources.

28 March
Joseph Bazalgette’s 200th Birthday
2019 celebrates 200 years since the birth of civil engineer Joseph Bazalgette, renown for engineering London’s sewer network which was instrumental in relieving the city from cholera epidemics.

1 April
Dugald Clerk Lecture
This free-to-attend evening lecture, run thanks to historic legacy, will explore the latest developments in water management and address the most critical engineering challenges.

30 April
ICE Health Summit
The ICE Health Summit 2019 is the opportunity for leaders to come together to develop a united approach to tackling some of the causes of ill-health for workers in the construction industry.

24-26 September
ICE Coastal Management 2019
This international conference will focus on new approaches to coastal engineering that integrate planning and ‘place-shaping’ to encourage bold adaptation to coastal change.

Invisible Superheroes Exhibition
Universal access to clean water and combating the effects of climate change around the world are key issues civil engineers have to face head on.

The new exhibition ‘Water – from source to tap’ will open on 22 March. The exhibition will focus on the civil engineers behind some of the world’s most impactful water projects.

Through a state-of-the-art new technology, the exhibition explores the response to fundamental engineering challenges like providing drinking water and sanitation systems to billions of people around the world.

ICE Learning Hub
The ICE Learning Hub provides a range of online learning modules and resources, designed to support the professional development of civil engineers.

Available free and exclusively to ICE members, this single, online portal can store 1,000 hours of content across 400 different activities. Water engineering programmes are now available online and new content is released every month.

Learn more at ice-vle.digits.co.uk

Ask Brunel for all your water engineering questions
ICE member? Want to know more about any civil engineering topic? Need an answer fast? Want reliable, expert information? Then Ask Brunel! Visit ice.org.uk/askbrunel