

27th Annual Conference

Institution of Structural Engineers,
47-58 Bastwick Street, London, EC1V 3PS
Wednesday 19th June 2024



The influence of technology continues to be at the forefront of construction and no less so than for concrete bridges. Iron bar to improve concrete performance was used in the 1870s (Homersfield Bridge Suffolk/Norfolk borders) and reinforcement with the Hennebique system (Chewton Glen Bridge, Hampshire) in 1902. The introduction of precast, prestressing, cantilever and incrementally launched sections, pushed the boundaries further. The exponential leap in computing power in the 21st century has enabled an explosion in digital technology in all areas of design and construction and, more recently, remote assessment and inspection.

The CBDG's 27th Annual conference will discuss the influence of intelligent engineering on concrete bridges; a material with intrinsic versatility, design flexibility and, above all, natural durability.

Keynote address

Embracing technology: a necessity not a choice; *Tim Arianpour - TfL*

Morning Session

3D concrete printing; *Peter Paul Cornelissen - Saint Gobain*

Developing a modular precast flexible bridge abutment; *Musa Chungue - Laing O'Rourke and Ramboll*

Comparison of embodied carbon in concrete structures based on local code constraints; *Lara Rueda - Mott Macdonald*

HS2 Fulfen Wood Overbridge; *Ryan Leaver - AtkinsRéalis*

Afternoon Session

Design of the permanent structural health monitoring system of the Colne Valley Viaduct being delivered by the Align JV as part of HS2 Phase One in the UK; *George Kapos and Ioannis Koromilas - Rendel Ltd*

Refined non-linear analysis of the existing M6 Bromford Viaduct against tunnel induced ground movements; *Stuart Moore and Thomas Wood - Mott Macdonald*

Bridge Health: Innovative data collection techniques using drones and AI; *Tarv Gohal - Arcadis Consulting*

Post-tensioned bridges - Improvements in the management of existing structures; *Donald Pearson-Kirk - WSP*

Exhibition stand space is available.

For further information and booking, please see www.cbdg.org.uk

