**Keynote Speaker**
**Anil Sawhney**

Director of the Infrastructure Sector, Royal
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Anil Sawhney is the Global Lead of the Construction and Infrastructure Sector at the Royal Institution of Chartered Surveyors (RICS). Anil is a construction and infrastructure sector expert, an educator, a researcher, and a Construction tech enthusiast. He is involved in producing the construction and infrastructure sector's body of knowledge, standards, guidance, practice statements, education, and training. Dr. Sawhney is also an Adjunct Faculty at Columbia University, Visiting Professor at Liverpool John Moores University in the UK, and an adjunct faculty at the University of Southern California. Anil has a rich mix of academic, research, industry, and consulting experience gathered in the USA, India, Canada, the UK, and Australia. In 2020, he co-authored a book entitled "Construction 4.0-Innovation Platform for the Built Environment." He is currently the co-editor of the Construction Innovation Journal. Dr. Sawhney serves on the international editorial board of the ICE Infrastructure Asset Management journal and the Journal of Information Technology in Construction.

**Keynote Presentation Title:** **Industrialized Construction: Megatrends shaping the future of construction**

*Abstract*: The construction sector faces an uncertain operating environment in 2023 – a trend in all global markets. Components of this uncertainty – a seemingly never-ending health crisis, the war in Europe, supply chain snarls, fixed-price contracts in a hyperinflationary environment, the shifting nature of the workforce, and an emerging response to environmental and social challenges – are complex and require a holistic response from all industry stakeholders. In the last three years, every sector of the economy, irrespective of maturity level, had to embrace changes supported mainly by technology. The construction sector was also swept up by this irreversible change seeing a significant acceleration in technology adoption and reconfiguration of processes and practices. Couple this with the changes driven by the Industry 4.0 framework, and the construction sector can leapfrog to more efficient production processes, business models, and value chains. The past three years have brought the following five technological megatrends to the forefront:

1. Prefabrication and advanced manufacturing

2. Robotics and automation

3. Big data, artificial intelligence, machine learning, and predictive analysis

4. Internet of Things and digital twins

5. Realtime data capture using drones, laser scanners, and other devices

With these megatrends and the progress in building information modelling and common data environment, the construction sector is now at an inflection point. A holistic paradigm that combines these emerging trends into a new operating model is needed. In this session, the speaker provides Industrialized Construction as this new operating system upon which our sector can continue to innovate. Industrialized Construction promises to reshape how we design, construct and operate our built assets. It is envisioned that the current challenges the industry faces can be overcome using this framework. This talk will discuss the key concepts, opportunities, and challenges of Industrialized Construction.