

Abstract

The cement and concrete industry is undergoing a profound transformation as it seeks to reduce its carbon footprint while maintaining the performance, durability, and affordability required for modern infrastructure. This expert insight session will provide an overview of recent developments in low-carbon cementitious binders, with particular emphasis on supplementary cementitious materials (SCMs) and Limestone Calcined Clay Cement (LC3) technologies. The session will explore the scientific principles underpinning these materials, current research findings, and the practical challenges associated with their implementation in real-world applications. Topics will include material characterisation, fresh and hardened concrete performance, durability and service life considerations, standardisation and specification challenges, and lessons learned from emerging field applications.
