



Prof. Ir Dr Mohd Haziman Wan Ibrahim

Biography:

Prof. Dr. Mohd Haziman Wan Ibrahim is a Professor at the Faculty of Civil Engineering and Built Environment, University Tun Hussein Onn Malaysia (UTHM). His proficiency is within the realm of structural and concrete technology, actively participating in various projects related to these fields. Dr. Haziman has an outstanding track record in publications, with a contribution to around 170 research papers published across journals, conferences, and book chapters. Google Scholar indicates that he has nearly 2000 citations, with an h-index of 24 and an i10-index of 58.

Transforming Waste into Wealth: Leveraging Coal Bottom Ash for Next-Generation Concrete Durability in Aggressive Environments

Abstract:

Concrete structures exposed to aggressive environments require meticulous attention to ensure their durability. Ordinary Portland Cement (OPC)-based concrete often deteriorates much faster than anticipated in such conditions. To enhance the durability of concrete, it is crucial to incorporate supplementary cementitious materials (SCMs). Coal bottom ash (CBA) emerges as a promising SCM due to its potential to improve concrete durability while addressing environmental concerns associated with its disposal. CBA, a byproduct of coal fired power plants, poses significant environmental challenges as a waste material. Utilizing CBA in concrete mixtures not only enhances the material's resilience but also converts a problematic waste product into a valuable resource, turning environmental concerns into opportunities for sustainability.