

Production, Properties, and Applications of Engineered Cementitious Composites

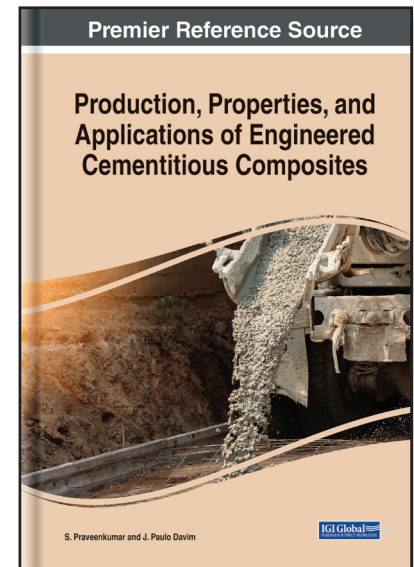
Part of the Advances in Chemical and Materials Engineering Book Series

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Description:

Engineered cementitious composites (ECC) is a new type of fiber-reinforced bendable cementitious composite that is used in various civil engineering applications instead of conventional and fiber-reinforced concrete due to its high mechanical and durable properties. In the macro and micro mechanic systems of ECC, the incorporation of different materials plays a vital role in enhancing the properties of ECC. Conventional concrete and fiber-reinforced concrete have a brittle nature and crack easily under environmental and mechanical loads, affecting the durability of structures. The usage of alternative materials in the ECC modifies the brittle nature and offers environmentally sustainable construction with low embodied energy and a negative carbon footprint.

Production, Properties, and Applications of Engineered Cementitious Composites highlights the new and innovative ways of production, properties, and various applications of engineered cementitious composites. The main focus of the book is on the latest advancements, technical knowledge, tools, and solutions for engineered cementitious composites manufacturing, design, and technologies for construction from various perspectives. Covering key topics such as alternative materials, mineral admixtures, and testing of engineered cementitious composites, this premier reference source is ideal for engineers, industry professionals, researchers, academicians, scholars, practitioners, instructors, and students.



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