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## Ceramic Matrix Composites

Guest Editor:

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Deadline for manuscript  
submissions:

**closed (25 November 2021)**

### Message from the Guest Editor

Dear Colleagues,

Ceramic matrix composites (CMCs) are state-of-the-art advanced lightweight, high-temperature-resistant materials that offer metal-like gradual failure properties despite being manufactured from brittle ceramics. CMCs weigh less than the presently used nickel-based superalloys and their melting temperature is twice as high. Energy systems incorporating these materials have greater fuel and energy efficiency, resulting in significant greenhouse gas emissions reduction. Over the past few 2–3 decades, a significant body of scientific work has been built to develop an understanding of material properties, characterization techniques, manufacturing methods, etc. for CMCs. The aim of this Special Issue is to provide a state-of-the-art review of present and potential applications of CMCs, showcasing application-oriented modelling techniques for CMCs. Researchers are encouraged to submit their work highlighting examples of the application of material constitutive models for CMCs, models for CMC fabrication, in-service degradation of CMC components due to fatigue, creep oxidation, and related topics.

Dr. Rohan Galgalikar  
*Guest Editor*



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# Special Issue



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## Editor-in-Chief

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## Message from the Editor-in-Chief

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