



Fractal Mechanics of Engineering Materials

Guest Editors:

Prof. Dr. Mohd Nasir Tamin

Faculty of Mechanical
Engineering, Universiti Teknologi
Malaysia, Johor Bahru 81310,
Malaysia

Dr. Seyed R. Koloor

Faculty of Mechanical
Engineering, Universität der
Bundeswehr München, Munich,
Germany

Deadline for manuscript
submissions:

closed (30 April 2024)

Message from the Guest Editors

Dear Colleagues,

Numerous engineering materials are inhomogeneous and inherit complex structures that exhibit statistical scale invariance over several length scales. These materials and structures include metals and alloys, geomaterials (rocks and aggregates), nanocomposites, engineered coatings and interfaces. The straining of these materials is quantified with appropriate theories within the domains of continuum, fracture, and damage mechanics. The fractality of geometrical features such as microstructures, granular aggregates, surface morphological irregularities and fatigue cracks can be quantified in terms of their fractal dimensions. The fractal analysis of these self-similar and multi-scale features aims to correlate the fractal geometry with meaningful mechanical quantities at micro-to-macro scale.

This Special Issue on "Fractal Mechanics of Engineering Materials" aims to present the state-of-the-art research methodologies and outcomes in fractal approaches for engineering materials. Therefore, we invite authors to submit quality review papers, research articles, and technical notes addressing the fractal aspects of engineering materials and related issues.

