

## Special Issue on Modeling, Characterization, and Processing of Advanced Composites

### Call for Papers

Outstanding developments have been seen over the past few decades in the field of science and technology of composite materials. Their unique and multipurpose characteristics have rendered them as a high-priority group of candidate materials for several engineering applications in different sectors of industry including railroad, road, air, and sea transportation, military, aerospace, municipality, energy production, and transmission, civil and infrastructures, oil and petroleum, and sports and leisure. Furthermore, the development of new manufacturing methods associated with composites has often resulted in more cost-effective and value-added production lines. In particular, emerging composites such as nanocomposites, green composites, and 2D/3D textile composites in recent years have encouraged researchers to fully understand and improve their thermo-mechanical/electrical/chemical behavior and thereby expand their applications.

Concentrating on advanced composites and their applications, the main objective of this special issue is to provide a forum for exchanging the state-of-the-art and novel ideas in the field of modeling, characterization, and processing of polymer-matrix, natural, and hybrid composites at nano-/micro-/meso-/macroscales.

Authors are invited to submit original research articles as well as review articles to this special issue. Potential topics include, but are not limited to:

- Analytical and numerical techniques for the analysis of composites
- Experimental methods for the characterization of composites
- Multiscale modeling
- Functionally graded composites
- Multifunctional composites
- Composite structures
- Application of advanced composites
- Environmental impacts
- Processing and manufacturing

- Damage and fracture
- Durability and aging
- Impact and dynamic response
- NDE techniques and reliability
- Probabilistic approach and design
- Structural health monitoring
- Optimization and material selection

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/amse/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/amse/mcpa/> according to the following timetable:

Manuscript Due	Friday, 7 December 2012
First Round of Reviews	Friday, 1 March 2013
Publication Date	Friday, 26 April 2013

### Lead Guest Editor

**Philip Harrison**, University of Glasgow, Glasgow, UK;  
[philip.harrison@glasgow.ac.uk](mailto:philip.harrison@glasgow.ac.uk)

### Guest Editors

**Abbas S. Milani**, University of British Columbia -  
Okanagan, BC, Canada; [abbas.milani@ubc.ca](mailto:abbas.milani@ubc.ca)

**Roham Rafiee**, University of Tehran, Tehran, Iran;  
[roham.rafaee@ut.ac.ir](mailto:roham.rafaee@ut.ac.ir)