Special Issue

Dynamics and Application of Modern, Smart and Active Elements or Structures

Message from the Guest Editor

The Special Issue is focused on covering all of the newest outcomes and trends in the nonlinear mechanics of systems and structures with smart, active, and modern materials. The modeling, machining, testing, and controlling of nonlinear dynamical systems is a key point of the Issue. Modern materials including shape memory alloys, composites, superalloys and smart materials have reached today a significant level of applications in many branches of industry and medicine, e.g., in spaceships, airplanes, bridges, high-performance cars, boats, sports equipment, and medical devices. However, new applications are still being explored. Their exceptional electrical, thermal, and mechanical properties can be used for new untypical uses. This needs a new approach for modelling, controlling and analysing smart structures. In light of the above, any progress in a nonlinear dynamics aspect is of great importance for further expansion in the field of mechanical engineering. Hereby, I would like to encourage any of the researchers working in the field to submit their valuable papers with theoretical, experimental, and numerical findings.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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