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

Guest Editor:

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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.

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Message from the Editor-in-Chief

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