

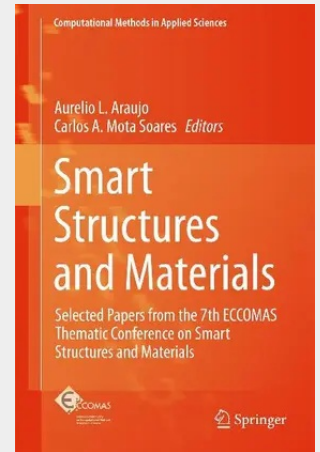
Smart Structures and Materials

Selected Papers from the 7th ECCOMAS Thematic Conference on Smart Structures and Materials

This work was compiled with expanded and reviewed contributions from the 7th ECCOMAS Thematic Conference on Smart Structures and Materials, that was held from 3 to 6 June 2015 at Ponta Delgada, Azores, Portugal. The Conference provided a comprehensive forum for discussing the current state of the art in the field as well as generating inspiration for future ideas specifically on a multidisciplinary level. The scope of the Conference included topics related to the following areas: Fundamentals of smart materials and structures; Modeling/formulation and characterization of smart actuators, sensors and smart material systems; Trends and developments in diverse areas such as material science including composite materials, intelligent hydrogels, interfacial phenomena, phase boundaries and boundary layers of phase boundaries, control, micro- and nano-systems, electronics, etc. to be considered for smart systems; Comparative evaluation of different smart actuators and sensors; Analysis of structural concepts and designs in terms of their adaptability to smart technologies; Design and development of smart structures and systems; Biomimetic phenomena and their inspiration in engineering; Fabrication and testing of smart structures and systems; Applications of smart materials, structures and related technology; Smart robots; Morphing wings and smart aircrafts; Artificial muscles and biomedical applications; Smart structures in mechatronics; and Energy harvesting.

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