



## Shape Memory Alloys Actuators

Guest Editors:

**Dr. Salvatore Ameduri**

CIRA, Italian Aerospace Research  
Centre, Via Maiorise, 81043  
Capua, Italy

**Dr. Antonio Concilio**

Department of Adaptive  
Structures, Centro Italiano  
Ricerche Aerospaziali, 81043  
Capua, CE, Italy

Deadline for manuscript  
submissions:

**closed (15 August 2020)**

### Message from the Guest Editors

Shape memory alloys (SMAs) is an emerging technology, which is increasingly being applied in different fields, from aerospace sector to automotive industry, and from biomedical field to civil engineering. SMAs' specific features make them suitable for actuation purposes. Their compactness and large energy and force density suit applications characterised by narrow available room that require as simple as possible actuation architectures, to minimise any transmission losses. Another important feature is the load bearing capability, which can cooperate with surrounding structure in absorbing external loads.

The present Special Issue aims at the current SMA applications in actuation field. Attention is paid to the development path, that is to say, the complex and often multidisciplinary process that starts from the requirements issued by specific problem (aerospace, biomedical, automotive, and civil engineering); continues with the generation of specifications for SMA actuation systems; arrives at the preliminary and advanced design of concepts; and finally, comes to the demonstration and validation, with a clear contextualisation of the achieved maturation level.

