



## Modeling and Design Based on Shape Memory Behavior

Guest Editors:

**Dr. Eunsoo Choi**

Civil Engineering Department,  
Hongik University, Seoul,  
Republic of Korea

**Dr. Hamid Shahsavari**

Institute of Microstructure  
Technology, Karlsruhe Institute  
of Technology, Karlsruhe,  
Germany

**Dr. Alireza Ostadrahimi**

Department of Mechanical &  
Industrial Engineering, Louisiana  
State University, Baton Rouge,  
LA, USA

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### Message from the Guest Editors

Shape memory materials (SMMs) are a class of smart materials that, without any additional mechanical effort, are capable of memorizing their permanent shapes and recovering them through different types of stimuli. Among the four main types of shape memory material, which are shape memory ceramics, shape memory composites (SMCS), shape memory alloys (SMAs), and shape memory polymers (SMPs), the last two terms are of considerable attention due to the widespread types of applications. The feature of shape memory effect (SME) can be seen when a significant deformation may be recovered through a particular stimulus. However, other features including superelasticity (in alloys) and visco-elasticity (in polymers) have drawn attention due to the interesting behavior upon unloading and loading. Furthermore, several methods including experimental, computational, and applied mechanics may be employed to analyze mechanical as well as electrical devices.

Therefore, this Special Issue is focused on the analysis and development of novel devices, structures, and applications of SMAs and SMPs in engineering fields from civil and aerospace engineering to medical devices.





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## Editor-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

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Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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