



Innovative Devices and MEMS for Sensing Applications

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Message from the Guest Editors

Dear Colleagues,

The Special Issue presents a broad overview of methods of both the analysis and design of sensors and actuators, mainly addressed to scientists as well as research students in the area of Electrical, Electronic and Computer Engineering, as well as Artificial Intelligence and Mechatronics; special attention is focused on innovative MEMS devices.

In general, the following remarks can be put forward. Progress in the technology of devices for sensing and actuation is boosted by several factors, for instance, the availability of smart materials like magnetic composites, size miniaturization, the impact of power electronics for supply.

In particular, miniaturization techniques make it possible to integrate different physical domains within the same device, the behavior of which is characterized by the interaction of coupled fields. This in turn has an impact on the mathematical and numerical modeling level, because tools for analysis and design more likely than not are supposed to offer facilities for multi-physics non-linear analysis. Correspondingly, sophisticated techniques of measurement are needed for the assessment and testing of prototypes.





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Message from the Editor-in-Chief

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