Special Issue

MEMS/NEMS Sensors: Advances, Trends and Challenges

Message from the Guest Editors

MEMS/NEMS are micro-/nano-electromechanical systems that integrate specific electrical and mechanical components on a nanoscale and microscale, allowing various micro-/nano targets to be measured quickly and precisely. Using MEMS sensors (e.g., microfluidic biosensors), for example, micrometer-sized cells (from hundreds of micrometers to sub-micrometers) can be characterized at frequencies exceeding 1000 Hz. On a nanoscale, nanomechanical structures provide indispensable functions such as sample introduction, separation, and purification when handling continuous single-molecule and single-nanoparticle processing. Nanoscale sensitivity enables the monitoring of various environments for viruses, bacteria, and particulate materials. We invite researchers to contribute either original research or review articles focusing on, but not limited to:

- (i) MEMS/NEMS sensor design and applications;
- (ii) novel fabrication techniques/protocols;
- (iii) stabilization of the detection of MEMS/NEMS sensors;
- (iv) signal analysis methods for MEMS/NEMS sensors;
- (v) development of intelligent MEMS/NEMS sensors.

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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