
Editorial

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Biographical notes: Jack Luo received his PhD from the University of Hokkaido, Japan. He worked in Cardiff University, UK, Newport Wafer Fab. Ltd., Philips Semiconductor Co. and Cavendish Kinetics Ltd., Cambridge University. From January 2007, he became a Professor in MEMS at the Centre for Material Research and Innovation (CMRI), University of Bolton to develop microsystems and sensors for biotechnology and healthcare.

Bill Milne is a Fellow of the Royal Academy of Engineering, UK. He is the Head of Electrical Engineering at Cambridge University and Director of the Centre for Advanced Photonics and Electronics (CAPE). His research interests include large area amorphous and nanocrystalline silicon and carbon nanotubes and other nanowire-based electronics and large area display devices, MEMS, bio-sensors and microactuators.

We would like to thank the IJCMSSE Editors for inviting us to guest edit this Special Issue on Microsystems (MEMS). The paper contributions to this issue range from highly specialised MEMS materials such as silicon carbide and shape memory alloys, the techniques used for characterising MEMS materials and microsystems, the new fabrication processes such as direct laser beam writing combined with water jet and deep reactive ion etching, and finally to application oriented microsystems.

Micro-Electro-Mechanical Systems (MEMS) is the integration of mechanical elements, sensors, actuators, and electronics through microfabrication technologies originally developed for the microelectronics industry. MEMS is an enabling technology for the development and creation of smart-products with revolutionised functionality. MEMS has found widespread applications covering space exploration, drug development, diagnosis, biotechnology and engineering. It is also becoming ever more integrated into the technologies of our daily lives

Progress in the MEMS application field are rapidly developing into a wide-branching research effort with multifaceted device functionalities. It is now becoming difficult to keep pace with the new advances. So, we have invited a number of leading specialists in the fields to contribute to this Special Issue and it is expected this will be useful and informative to the researchers and engineers already working in these fields. It may also serve as an overview and introduction for the newcomers.

This Special Issue would not have been possible without the thoughtful assistance that we received from the authors. Thanks also go to the Editorial board of the IJCMSSE for their help and hard work to get this issue published.