Preface

This is the second book by the MEMS symposium of the International Conference on Materials for Advanced Technologies (ICMAT). The ICMAT is a bi-annual conference organized by the Materials Research Society of Singapore, covering contemporary topics of importance for science, engineering and technology of materials. This year, the fifth ICMAT will carry a total of 23 Symposia - with technical program that includes Plenary, Keynote, Invited, Oral, Poster presentations and also Nobel Laureates speaking at the conference and at accompanying public lectures opened to conference participant and to the general public including students from local Junior Colleges, Polytechnics and Universities.

Particularly for this book, a special issue of the conference proceedings for symposium L of ICMAT 2009, titled “NEMS/MEMS Technology and Devices”, the technical emphasis has been placed on Nanoelectromechanical Systems (NEMS)/Microelectromechanical Systems (MEMS) technology and devices. Particularly, the symposium aims to cover not only applications that involve MEMS design, but also its modeling, fabrication processes (e.g. semiconductors, polymers, etc.) lab-on-a-chip, and biophotonic medical devices (e.g. DNA, protein and cell sorting, etc). The focuses for these points of interest are on the exploration of new devices and processes innovation and engineering applications, especially as related to NEMS/MEMS technology and devices.

Many people are to be appreciated for making this book possible. To begin with, the symposium would not have been possible without the efforts of ICMAT conference manager – Mr Ivan BOO and chair of conference Professor B V R CHOWDARI of the National University of Singapore, Singapore. Next, the chairs of the symposium, Professor Tarik BOUROUINA of the Ecole supérieure d'Ingénieurs en Electrotechnique
et Electronique - France, and Professor Ai-Qun LIU of the Nanyang Technological University – Singapore (who is chairing for the third consecutive time), provided much guidance with their valuable experience together with the co-chairing professors: Vincent Chengkuo LEE of the National University of Singapore, Singapore; Hua Li, of the Nanyang Technological University, Singapore; Gwo-Bin LEE of the National Cheng Kung University, Taiwan, and Frank CHOLLET of the Universite de Franche Comte, France.

As in the previous volume, this book has been completed in a relatively short period of time because of the devotion and hard work of a strong team. As always, Selin TEO was her dependable self, overseeing the compilation of papers, while assiduous Weiming ZHU provided invaluable assistance in liaising with the authors, putting together the classifications of the papers etc. At the same time, Anne WOHLBIER and Thomas WOHLBIER of the publisher gave of their professional advises most generously and had been integral to the timely publication of this book. Finally, Tao Jifang and many others, whom we are unable to name individually in listing, are much appreciated for their helpful and diligent support rendered behind the scene.

Finally, we wish to express our thanks and appreciation to the contributors, who have shared with us their knowledge of the field and responded to our requests for data, information and follow-ups with cooperation, understanding and forbearance. We are responsible for any remaining errors and shortcomings in the book.

The editors May 2009