Preface

Micro-Electro-Mechanical Systems, or MEMS, is a technology that in its most general form can be defined as miniaturized mechanical and electro-mechanical elements (i.e., devices and structures) that are made using the techniques of microfabrication. The critical physical dimensions of MEMS devices can vary from well below one micron on the lower end of the dimensional spectrum, all the way to several millimeters. Likewise, the types of MEMS devices can vary from relatively simple structures having no moving elements, to extremely complex electromechanical systems with multiple moving elements under the control of integrated microelectronics. The one main criterion of MEMS is that there are at least some elements having some sort of mechanical functionality whether or not these elements can move. The term used to define MEMS varies in different parts of the world. In the United States they are predominantly called MEMS, while in some other parts of the world they are called Microsystems Technology or micromachined devices.

Aiming to the advances of MEMS and Mechanics, 2013 International Conference on MEMS and Mechanics (MEMSM 2013) is an annual conference to call together researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in MEMS and Mechanics.

MEMSM 2013 is sponsored by Hongkong Education Society, Hong Kong. MEMSM 2013 has received more than 280 submissions from 20 countries and regions. The papers come from both academia and industry reflecting the international flavor of this event in the topics of New Materials and Advanced Materials , Mechatronics, industrial Robotics and Automation, Machine Vision, Sensor Technology, Microelectronic Technology, Integrated Circuit Technology, Measure Control Technologies and Intelligent Systems, Transmission and Control of Fluid, Mechanical Control and Information Processing Technology, Embedded System, Advanced Forming Manufacturing and Equipment, NEMS/MEMS Technology and Equipment, Micro-Electronic Packaging Technology and Equipment, Advanced NC Techniques and Equipment, Power and Fluid Machinery, Energy Machinery and Equipment, Construction Machinery and Equipment , Mechanical Engineering, Industrial Electronics, etc. And about 110 papers were accepted to be presented in MEMSM 2013, according to the reports from anonymous reviewers. All the presented papers will be published by TTP Press in Advanced Materials Research which will be online available in full text via the platform www.scientific.net, and be indexed by Scopus, EI Compendex, ISI Proceedings, etc.

We express our thanks to all the members of the General Committee Chairs, Program Committee Chairs, Technical Program Committee and Volunteers who worked so hard to prepare the conference and chair the 2 sessions in MEMSM 2013 .

We hope that MEMSM 2013 will be successful and enjoyable to all participants. We look forward to seeing all of you next year at the MEMSM 2014.

Dehuai Yang

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