
FOREWORD

Special Section on Recent Development of Electro-Mechanical Devices (IS-EMD2008)

Electro-Mechanical Devices (EMD) have been recognized as a sort of electrical or electronic parts which should be inevitably used in all electrically related appliances and even in today's optical systems. We define the EMD as the devices that can be moved with electrical energy and mechanical systems which can control electrical energy or electrical signal. Thus, the EMD includes all systems such as not only switching, connecting, commutating, sensing, optical connecting, etc., but also their materials and fabrications. So the EMD is the essential industrial bases for manufactures such as those of industrial machineries, car electronics and others which are the fundamental technologies of EMD that have been going to miniature system so called MEMS. They have made rapid progress towards downsizing, high-density packaging and the development from the viewpoints on energy-saving, environmental preservation, and creation of a new validity by applying new materials.

The 8th International Session on Electro-Mechanical Devices (IS-EMD2008) was held in 2008 at Tohoku Bunka Gakuen University, Sendai, Japan. The IS-EMD is the International Session of monthly research meetings on EMD in IEICE, and has been held every year since 2001. In this special section, the papers were selected mainly from the ones presented at IS-EMD2008. Among the total of 14 articles published, 9 papers were from abroad, including one invited paper. All of the published articles present beneficial results of researches in the EMD related fields.

Lastly, I greatly appreciate Dr. Hasegawa, Guest Editor, and the other members in the Editorial Committee for aggressive exertion. I also thank all reviewers for their judging adequately and giving useful comments.

Special Section Editorial Committee Members

Guest Editor: Makoto Hasegawa (Chitose Institute of Science & Technology)

Guest Associate Editors:

Mitsuo Ichiya (Panasonic Electric works, Co., Ltd.), Nobuhiro Kuga (Yokohama National Univ.), Tatsuo Kobayashi (Oki Sensor Device Corporation), Koichiro Sawa (Keio Univ.), Junya Sekikawa (Shizuoka Univ.), Hideaki Sone (Tohoku Univ.), Terutaka Tamai (Mie Univ.), Ryo Nagase (NTT), Yasuhiro Hatori (Sumitomo Wiring Systems, Ltd.), Kiyoshi Yoshida (Nippon Inst. of Technology), Noboru Wakatsuki (Ishinomaki Senshu Univ.)

Masanari Taniguchi, Guest Editor-in-Chief

Masanari Taniguchi (*Fellow*) received his B.S. degree in electrical engineering from Meijo University in Nagoya, Japan, in 1964, and Dr.Eng. degree from Tohoku University in Sendai, Japan, in 1994. In 1964, he became a Research Associate at the Faculty of Science and Technology, Meijo University, and then an Assistant Professor. In 2000, he became a Professor in the Faculty of Science and Technology, Tohoku Bunka Gakuen University, Sendai, Japan. In 2003, he became a Professor in Graduate School of Health and Environment, Tohoku Bunka Gakuen University, Sendai, Japan. His research interests are the reliability evaluation of electromechanical devices, the application of holography to measurements, application of infrared radiation to measurement and the application of optical fiber to sensors. Dr. Taniguchi is a senior member of the IEEE, a member of the IEE-J, IEI-J, IITE, SICE, JST, AST and JIEP, respectively.

