
FOREWORD

Special Section on Recent Development of Electro-Mechanical Devices — Selected Papers from International Session on Electro-Mechanical Devices 2014 (IS-EMD2014) and Other Recent Research Results —

Electro-Mechanical devices (EMD) mainly refer to mechanical switching and connecting devices, such as mechanical relays, switches and connectors. They have a long history in practical usage in various industrial fields for the purpose of delivering and/or controlling electrical signals and power, and are still serving as important key components. Especially in recent years, their roles are being re-focused in several technical fields. For example, demands of DC power distribution are increasing in power distribution, and MEMS switching techniques are becoming important in high-frequency signal transmission. Thus, R&D efforts in the related fields of technologies have been strongly required.

The 14th International Session on Electro-Mechanical Devices (IS-EMD2014) was held on November 29–30 in Chitose, Hokkaido, Japan. About 40 participants including several overseas members gathered, and 30 technical papers were presented, including ones from P.R. China, Thailand, Malaysia and Poland. Intensive and fruitful discussions and exchanges of opinions were realized at the conference site.

In this special section, several papers from IS-EMD2014 as well as other recent research activities are published. Those papers in this special section surely provide advantageous and beneficial technical results in the related research fields.

Lastly, I would like to express my great thanks to the members of the Editorial Committee. Especially, I greatly appreciate Mr. Shin-ichi Wada, Secretary, for his dedicated contribution to editorial task of this special section.

Special Section Editorial Committee

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Makoto Hasegawa (Chitose Institute of Science and Technology), Guest Editor

Makoto Hasegawa (*Senior Member*) received his B.E., M.E. and Ph.D. degrees in electrical engineering from Keio University, Yokohama, Japan, in 1986, 1988 and 1991, respectively. After spending several years in industry, Dr. Hasegawa is now a Professor at the Department of Global System Design, Chitose Institute of Science and Technology, Japan. He is currently involved in research on electrical contact phenomena and related measuring techniques, as well as optical sensing techniques, and also development of physics and science education programs and activities. Prof. Hasegawa is a senior member of IEEE, and a member of Institute of Electrical Engineers of Japan (IEEJ), Japan Society of Applied Physics (JSAP), Society of Photo-Optical Instrumentation Engineers (SPIE), Physics Education Society of Japan, and Japan Association for College and University Education, respectively.

