

Preface

The 17th International Symposium on Applied Electromagnetics and Mechanics (ISEM2015)

This volume of the International Journal of Applied Electromagnetics and Mechanics is a Special Issue containing selected papers presented at the 17th International Symposium on Applied Electromagnetics and Mechanics (ISEM2015) that was held successfully from September 15 to 18, 2015 in the Awaji Yumebutai International Conference Center, Awaji Island, Japan. The symposium started in the year 1988 in Japan and since then it was held in Japan, Korea, the United Kingdom, Germany, Italy, France, Austria, USA, China, and Canada.

The objective of the symposium is to provide a forum for exchanging ideas and discussing recent developments and results arising in electromagnetics and mechanics. For ISEM2015, around 300 papers were submitted from authors of 15 countries. The symposium was composed of 2 plenary lectures, 2 invited lectures, 8 organized sessions, 15 oral sessions, and 2 poster sessions. The organized sessions include the following topics in the field of applied electromagnetics and mechanics: Analysis and simulation of electromagnetic devices, Advanced electromagnetic systems, engineering, control, and dynamics, Inverse problems in electromagnetic measurements, Bio-inspired robots, Bio-medical engineering, Electromagnetic nondestructive testing in structured component, Cyber-physical system technology for smarter world realization, Robotics for health and rehabilitation. The oral and poster sessions cover the variety of recent issues related to ISEM traditional topics: Nanotechnology applications, Laser and particle beams and plasmas, Micro-magnetism and hysteresis, Electromagnetic functional materials and adaptive systems, Electromagnetic smart fluids, Electromagnetics processing of materials, Nuclear fusion technology, Applied superconductivity, Biomedical engineering, Micro electro-mechanical systems (MEMS), Electromagnetic sensors and actuators, etc.

The official procedures for the paper submission to ISEM 2015 consist of two steps. First, two-page short papers were reviewed and more than 280 papers were accepted and contained in the Conference Proceedings. Secondly, the extended full papers submitted were peer reviewed and 205 papers are accepted for publication in this special issue of IJAEM.

We are grateful to the ISEM International Steering Committee for its support and guidance. We would like to thank all the reviewers, particularly including the program committee members of ISEM 2015 for their careful reviews of the full-length papers. Finally, we would like to thank our principal sponsors: Organization of Advanced Science and Technology at Kobe University, Japan Society of Maintenance (JSM), Japan Society of Applied Electromagnetics and Mechanics (JSAEM), the Tateisi Science and Technology Foundation, and Hyogo Prefecture.

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