

Guest Editorial Preface

Special Issue of Robotics and Mechatronics (HSST)

Wai Chi Fang, APAIS, Korea

Tai-hoon Kim, APAIS, Korea

Sabah Mohammed, APAIS, Korea

Mincong Tang, APAIS, Korea

We are pleased to present this issue of the Journal of Information Technology Research as a special issue entitled ‘Robotics and Mechatronics.’ This special issue of Journal of Information Technology Research (JITR) includes the researches presented at the 5th International Conference on Interdisciplinary Research Theory and Technology (IRTT 2017), which was held last December 21-23, 2017 at Daejeon University, Korea. International conferences have become more frequent because of rapid development in this field needing larger interaction among professionals (researchers, developers and practitioners). The usual practice in these events is to bring out only abstract / synopsis book at the time of the conference.

The organizers of IRTT 2017 decided to bring out papers presented at the conference, in full, as a special issue of the journal (JITR). Publication of full papers based on presentations at conferences/workshops has multiple advantages. For the authors, the quality of work may considerably improve through the seriousness of discussions with peers during the conference. For referees, it becomes easier to review the papers as referees are generally drawn from among the experts attending the conference. To provide equal opportunity to all authors of the invited and proffered papers of IRTT 2017, an announcement on the special issue was included in the conference circulars right from the start. Publishing was optional and the decision was left to authors.

The topics covered in this special issue includes: Automation and control, Ecomechatronics, Electromechanics, Embedded control systems, Integration of mechanical engineering with electronics and intelligent computer control, Synergistic integration of mechanics, electronics, and computer technology to produce enhanced products or systems, The synergistic combination of mechanical engineering, electronic engineering, and software engineering, Bioengineering materials, biomechanics and biotribology, Computational mechanics / FEM modelling and simulation, Computer-based manufacturing technologies: CNC, CAD, CAM, FMS, CIM, Technology that is used to design, build, and operate robots, Elements, structures, mechanisms, and applications of micro and nano systems, Teleoperation, telerobotics, haptics, and teleoperated semi-autonomous systems, multi-sensor data fusion algorithms and wireless sensor networks, Control system modeling and simulation techniques and methodologies, Robotics applications, Human-robot interaction, Motion planning and algorithms, Advanced robotics, Kinematics and dynamics aspects of robots, Nonholonomic systems and control, Sensory and visual feedback in robots, Mechanisms and machines, Micro and nanomechanics, Multifunctional and smart materials, Nanomaterials and nanomanufacturing, remanufacturing,

Solid mechanics and structural mechanics, Sustainable and green manufacturing, Nanorobotics. It is hoped that this JITR issue will make a good reference material and be of great use for information technology researchers and developers.

Wai Chi Fang
Tai-hoon Kim
Sabah Mohammed
Mincong Tang
Guest Editors
JITR