

Preface

On behalf of the Organizing Committee I welcome the paper presenter and participants to the International Conference on Mechatronics and Intelligent Robotics (ICMIR2017) held at Kunming, China, during May 20–21, 2017. This annual conference is being organized each year by Interscience Research Network, an international professional body, in association with International Journal of Computational Vision and Robotics and International Journal of Simulation and Process Modelling, published by Inderscience Publishing House. I must welcome this year's General Chair Prof. Feng Qiao, Shenyang JianZhu University, Shenyang, China, for his generous contribution to ICMIR-2017. He has also contributed an issue of his journal International Journal of Simulation and Process Modelling to the selected papers of the conference.

Like every edition, this edition of ICMIR2017 was academically very rich and we had three eminent professors as keynote speakers namely Prof. John Wang, Dept. of Information Management & Business Analytics, School of Business Montclair State University, USA, Prof. Kevin Deng, Distinguished Professor and Executive Director of Automotive Research Institute, Jilin University, and Dr. Nilanjan Dey, Department of Information Technology, Techno India College of Technology, Kolkata, India.

There has been a rapid progress during last 5 (five) years. The domain covers various areas such as: robotic-assisted manufacturing; advanced mechanisms and robotics; systems modelling and analysis; instrumentation and device control; automation systems; intelligent sensing and control; medical robotics; and autonomous and complex systems. New technologies are constantly emerging, which are enabling applications in various domains and services. Intelligent Mechatronics and Robotics is no longer a functional area within the department of mechanical or electronics, but is an integral part of the manufacturing function of any organization. In the recent time, Intelligent Mechatronics and Robotics is probably the single most important facilitator of the manufacturing process. The result of research in this domain is now influencing the process of globalization, particularly in the

productive, manufacturing and commercial spheres. Creating economic opportunities and contributing to monotony reduction is another thrust area for the emerging epoch of Intelligent Mechatronics and Robotics.

This edition of ICIMR covered the following areas but not limited to intelligent mechatronics, robotics and biomimetics, novel and unconventional mechatronic systems, modelling and control of mechatronics systems, elements, structures, mechanisms of micro- and nano-systems, sensors, wireless sensor networks and multi-sensor data fusion, biomedical and rehabilitation engineering, prosthetics and artificial organs, AI, neural networks and fuzzy logic in mechatronics and robotics, industrial automation, process control and networked control systems, telerobotics, human–computer interaction, human–robot interaction, artificial intelligence, bio-inspired robotics, control algorithms and control systems, design theories and principles, evolutionary robotics, field robotics, force sensors, accelerometers, and other measuring devices, healthcare robotics, human–robot interaction, kinematics and dynamics analysis, manufacturing robotics, mathematical and computational methodologies in robotics, medical robotics, parallel robots and manipulators, robotic cognition and emotion, robotic perception and decision, sensor integration, fusion, and perception. This volume covers various articles covering the recent developments in the area of Intelligent Mechatronics and Robotics categorized into seven (7) tracks, such as:

1. Intelligent Systems
2. Intelligent Sensor & Actuator
3. Robotics
4. Mechatronics
5. Modelling & Simulation
6. Automation & Control and
7. Robot Vision

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