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Minoru Sasaki
Gisang Choi Sang
Zushu Li
Ryojun Ikeura
Hyungki Kim
Fangzheng Xue
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Welcome

On behalf of the Organizing Committee, it is my great pleasure to welcome you to the 2007 International Conference on Mechatronics and Information Technology: ICMIT 2007 held 5-6 December 2007, in Gifu, Japan. ICMIT 2007 is governed, organized and sponsored by the Korea-Japan Joint Advanced Mechatronics Research Association, Faculty of Engineering, Gifu University, Japan, the Society of Applied Electromagnetics and Mechanics in Japan, Biomedical and Welfare Division, CRC, Institute of B.W.E, Yamaguchi University, Japan, Gifu Convention Center, Japan, GES Inc., Korea, KAHA Inc., Korea, and Chongqing Institute of Technology, China. ICMIT 2007 brings together researchers and engineers to present and exchange their ideas on the latest accomplishments, innovations, future trends, and applications in advanced mechatronics and information technology. We would like you to participate in the research area of your interest included in the topics of our conference. I hope that every attendee has a very positive professional experience at the conference and is also able to enjoy all that Gifu has to offer.

ICMIT 2007 is technically cosponsored by a number of leading technical organizations that include: Society of Instruments and Control Engineers (SICE), Japan; Chinese Association for Artificial Intelligence (CAAI), China; Institute of Control, Automation and Systems Engineers (ICASE), South Korea; Robotics Society of Japan (RSJ), Japan; Natural Science Foundation of China (NSFC), China; Korea Society of Precision Engineering (KSPE), South Korea; Japan Society of Mechanical Engineers (JSME), Japan; Chongqing Artificial Intelligence Society (CQAI), China; Korea Institute of Information and Telecommunication Facilities Engineering (ITFE), South Korea; Faculty of Symbiotic Systems Science, Fukushima University, Japan; Intelligent Automation Committee of Chinese Automation Association of (IACAA), China ; and The Institute of Electronics Engineers of Korea (IEEK), South Korea.

Since the first International Workshop on Advanced Mechatronics (IWAM) held in 1995 and continued every two years, significant achievements on the research cooperation in the advanced of the mechatronics field have been reached. In order to fit the new trend on the development of the mechatronics system and information technology and to promote a new international cooperation relationship in the 21st century, the committee decided to rename the International Workshop on Advanced Mechatronics (IWAM) to the International Conference on Mechatronics and Information Technology (ICMIT) in 2001. ICMIT 2007 is the fourth International Conference on Mechatronics and Information Technology. The international program committee has assembled a comprehensive technical program that covers a broad spectrum of topics in control theory and application, sensors and signal processing, actuators and mechanism, robotics and human interface, smart materials, mechatronics and

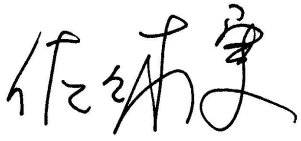
MEMS, Medical and health welfare instruments, Information technology, communication and network systems, intelligent control and systems, and ubiquitous applications. For ICMIT 2007, we received a total of 373 submissions, out of which 200 papers have been accepted for presentation and publication in these proceedings. We thank the authors, keynote speakers, and session chairs for their tremendous contributions toward a top-quality program.

Apart from attending the technical program, you are encouraged to experience Gifu. Gifu City is located in the center of Japan, about 250 km west of Tokyo, 140 km east of Osaka, and 30 km north of Nagoya. The limpid stream Nagara River running through the center of the city is richly endowed with nature and best known for "Ukai", which is an ancient fishing method catching ayu (Japanese trout) by using tamed cormorants. Moreover, green Mt. Kinka in the southern part of the city is suitable for hikers and you can find Gifu castle that is associated with best known feudal warlord Nobunaga Oda on the top of the mountain.

Last, but definitely not least, I would like to express my sincere gratitude to everyone involved in making the conference a success. Many thanks go to the organizing committee, the keynote speakers, the program committees, and reviewers, members of technical committees, the conference participants, our sponsors, and of course, to all the contributing authors who will be sharing the results of their research.

It is our great pleasure to have you with us at the conference. Best wishes, and may you have a wonderful and stimulating stay in Gifu.

Minoru Sasaki



General Chair, ICMIT 2007