August 21. Friday, 2009

Symposium Ⅱ Chair : Dr. Jong-Kweon Park

10:00~10:30	**Development of Micro-Factory System Technologies for the Next Generation** Dr. Jong-Kweon Park *(Korea Institute of Machinery and Materials, KOREA)*
10:30~11:00	**Development of System Technologies of BT μ-Factory for Next Generation** Dr. Chan Bong Kim *(Vatech Co., Ltd., KOREA.)*
11:00~11:30	**Development of IT μ-Factory System for Next Generation** Dr. Jun-Yeob Song *(Korea Institute of Machinery and Materials, KOREA)*
11:30~12:00	**Development of Desktop Micro-Forming System** Eun-Duk Chu *(Space Solution Inc.. KOREA.)*
12:00~13:00	Lunch
13:00~13:30	**Development Desktop Complex Machining System for Micro Parts** Jung Pyo Hong *(Mekania Corp., KOREA.)*
13:30~14:00	**Development of Vision/Inspection System for Micro-Factory System** Dr. Woo Seop Chung *(TechMAC Co., Ltd., KOREA)*
14:00~14:30	**Development of High-Tech Component Technologies of Micro-Factories for Next Generation** Dr. Jong-Kweon Park *(Korea Institute of Machinery and Materials, KOREA.)*
14:30~15:00	Discussion

Nex-μF

등록안내

장 소 | 서귀포 KAL호텔
일 시 | 2009. 8. 20(오후 1시)

오시는 길

제주공항 리무진 셔틀버스 이용(15분배차, 60분 소요)
제주공항 택시이용(3만원, 30분 소요)

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IWMT 2009

5th International Workshop on Microfactory Technology

August 20-21, 2009
Seogwipo KAL Hotel, Jeju-do, Korea

Korea Institute of Machinery & Materials (KIMM)
The Korean Society of Machine Tool Engineers (KSMTE)

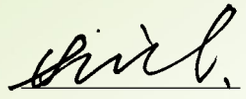
Sponsored by
Ministry of Knowledge Economy (MKE)

Invitations

The micro- and nano-scale manufacturing systems are regarded as key technologies for the future IT/BT/NT systems to produce micro-mechanical, micro optics and digital systems which will change the human life-style of the future. The 'Microfacoty System' is considered to have a much smaller size than the conventional manufacturing systems, so that it consumes less energy and space. This concept has been widely under development around the world.

From this motivation, our "Development of Microfactory Systems for the Next Generation" project started with sponsorship from the Ministry of Knowledge Economy, Korea in September, 2004. It is a 7 year research and development program in which many organizations in Korea, USA, Finland, and Japan are participating. Now, we are heading for the end of the fifth year and we hold "The 5th International Workshop on Microfactory Technology" on Thursday, August 20 and Friday, August 21, 2009 in Jeju-do, Korea. We hope this meeting will be a good opportunity to review our works and exchange the professional experiences and future directions.

August 20, 2009



Dr. Jong-Kweon Park

Principal Research Director of "Development of Microfactory Systems for the Next Generation" project

5th International Workshop on Microfactory Technology, IWMT 2009

August 20. Thursday, 2009

13:00~13:50	**Arrival & Registration**
13:50~14:00	**Opening Welcome Address** Dr. Jong-Kweon Park *(Korea Institute of Machinery and Materials, KOREA.)*
	Keynote Speech
14:00~14:25	**Industrial applications of microfactory philosophy by private sectors** Dr. Yuichi OKAZAKI *(AIST, JAPAN.)*

Symposium I Chair : Prof. Soo-Hun Lee

Session I

14:25~14:50	**Development of Micro-Factory System Technologies in KIMM** Drs. Seung-Kook Ro, Jong-Kweon Park *(Korea Institute of Machinery and Materials, KOREA.)*
14:50~15:15	**Surface Micro-texturing through Tertiary Tool Motion** Dr. Kornel F. Ehmann and Kostyantyn Malukhin *(Northwestern University, USA.)*
15:15~15:40	**Fabrication of micro-structures on oxygen free copper utilizing nano precision machining(2nd report)** Drs. Hitoshi Ohmori and Yosuke Hachisu *(RIKEN, JAPAN.)*
15:40~15:50	**Coffee Break**

Session II

15:50~16:15	**Development of a Flexible Gripper System for Small Optical Assemblies** Dr. R. Tuokko *(Tampere University of Technology, FINLAND.)*
16:15~16:40	**A New Approach to Modeling the Cutter/Workpiece surface intercations for force Prediction in Five-axis ball-end Micro-milling** Dr. Shiv G. Kapoor *(Univ. of Illinois at Urbana-Champaign. USA.)*
16:40~17:05	**Preliminary design and development of cutting fluid system for micro-machining based on ultrasonic atomization** Drs. Max Rukosuyev, Chan Seo Goo and Martin B. G. Jun *(Univ. of Victoria, British Columbia, CANADA.)*
17:05~17:15	**Coffee Break**
17:15~17:40	**Prototype Development and Magnetic Field-Based Sensing for a Multi-DOF Precision Tiltable Stage** Drs. Kok-Meng Lee, Shaohui Foong and Kun Bai *(Georgia Institute of Technology. USA.)*
17:40~18:05	**An integrated micromachining platform utilizing mechanical and laser processes** Drs. Chiaki ENDO *(Takashima Sangyo Co., Ltd. JAPAN.)*, Tsuyoshi OGAWA *(Toyo SeikiKogyo Co., Ltd. JAPAN.)* and Yuichi OKAZAKI *(AIST. JAPAN.)*
18:05~18:30	**Modeling of Ceramic Microgrinding by Cohesive Zone Based Finite Element Method** Drs. Jie Feng, Bong Suk Kim and Jun Ni *(Univ. of Michigan. USA.)*
18:30~19:10	**Poster Session**
19:10~21:00	**Banquet**