

Press Release

July 15, 2008

The MTTRF Annual General Meeting and Awards Ceremony

On July 1 and 2 of 2008, the MTTRF (Machine Tool Technologies Research Foundation) annual general meeting and its awards ceremony were held at the InterContinental Mark Hopkins San Francisco Hotel in San Francisco, California.

MTTRF was built in October 2002 with fundamental resources donated by Mori Seiki, intended for universities and public institutes to conduct research and development of machine tools at an international level. This is a nonprofit organization authorized by the government of the United States of America. The President of MTTRF is Professor Kazuo Yamazaki of the University of California, Davis, and the President of Mori Seiki, Dr. Masahiko Mori and Managing Director, Dr. Makoto Fujishima are Directors.

Approximately 90 researchers gathered over the 2 days for a speech by our company's President Dr. Mori (Title: "Evolving Infrastructure for High End Machine Tool Business"), as well as other various speeches made by machine tool researchers from around the world.

During the closing ceremony, Dr. Mori received a valuable test machining workpiece (an ashtray), which was made by the world's first NC machine tool developed at MIT (Massachusetts Institute of Technology), from Dr. Kegg, former vice president of Cincinnati Milacron who was invited as a guest speaker. The workpiece will be displayed at the Mori Seiki headquarters in Nagoya.

[This year's award winners]

Distinguished Service Award	Dr. Richard Kegg, Former Vice President of Cincinnati Milacron
Equipment Loan Award	Professor Yusuf Altintas University of British Columbia; Canada (Lending Machine: 5-axis Machining Center)
Equipment Loan Award	Professor Tojiro Aoyama Keio University; Japan (Lending Machine: Vertical Machining Center)
Equipment Loan Award	Professor David Dornfeld University of California, Berkeley; USA (Lending Machine: Vertical Machining Center)
Equipment Loan Award	Professor Atsushi Matsubara Kyoto University; Japan (Lending Machine: Vertical Machining Center)
Equipment Loan Award	Professor Keiichi Shirase Kobe University; Japan (Lending Machine: 5-axis Machining Center)
Equipment Loan Award	Professor Mustafizur Rahman National University of Singapore; Singapore (Lending Machine: Vertical Machining Center)

Equipment Loan Award	Professor Yoshimi Takeuchi Osaka University; Japan (Lending Machine: Multi-axis machine)
Equipment Loan Award	Professor Takashi Ueda Kanazawa University; Japan (Lending Machine: Vertical Machining Center)
Equipment Loan Award	Professor Joao Oliveira University de San Paulo; Brazil (Lending Machine: Vertical Machining Center)
Equipment Loan Award	Professor Konrad Wegener ETH Zurich; Switzerland (Lending Machine: 5-axis Machining Center)
Equipment Loan Award	Professor Bert Lauwers Katholieke Universiteit Leuven (Lending Machine: NC Lathe)
Equipment Loan Award	Professor Nilufer Egrican Yeditepe University (Lending Machine: 5-axis Machining Center)

[Presented Speeches]

Feed optimization for five-axes CNC machine tools with drive constraints
(Professor Altintas; University of British Columbia)

Cryogenic micromachining of PDMS for microfluidic chips
(Professors Aoyama and Kakinuma; Keio University)

Test piece for testing 5-axis machines
(Professor Wegener; ETH Zurich)

Tool path generation functionality and ultrasonic assisted machining of ceramic components using multi-axis machine tools
(Professor Lauwers; Katholieke Universiteit Leuven)

A study on tool posture decision for process planning in 3+2-axis control milling
(Professor Shirase; Kobe University)

Evaluation of tool life in micro milling
(Professor Rahman; National University of Singapore)

Development of CAM system for multi-tasking machine tools
(Professor Takeuchi and Dr. Kotani; Osaka University)

Analysis of cutting strategies for high-productive end milling and a long-term process control scheme to regulate tool life
(Professors Matsubara and Ibaraki; Kyoto University)

Measurements and inspection with machine tools by remote control in micro-milling operations – a first investigation
(Professor Coelho; University of San Paulo)

Thermal aspects of actively driven rotary tool in turning
(Professor Ueda; Kanazawa University)

Micromachining for the precision fabrication of microfluidic devices
(Professor Dornfeld; UC Berkeley)

Research opportunities in multi scale high speed machining of aerospace and medical grade alloys
(Professor Egrican; Yeditepe University)

[Photos]



[Schedule]

ASCENTI-CNC ANNUAL MEETING 2008 PROGRAM

Day 1: July 1, 2008 (Tuesday)

07:00 – 08:30 Registration and Breakfast

08:30 – 08:50 Opening Address

Prof. Kazuo Yamazaki

08:50 – 10:10 Technical Presentations

08:50 – 09:10	A Study on the Generation of Silicon Based Hardware PLC by means of the Direct Conversion of the Ladder Diagram to Circuit Design Language	Daoshan Du Xiaodong Xu
09:10 – 09:30	Automatic On Machine 3D Modeling System of Cutter and Holder	Xi Zhang
09:30 – 09:50	A Design of Comprehensive on-machine Tool Cutting Edge Evaluation Using Machine Vision	Waiming Tsang
09:50 – 10:10	Virtual On-machine NC Program Debugging by Means of Shortest Distance Checking in Machining Workspace	Mohammad Uddin

10:10 – 10:40 Coffee Break

10:40 – 12:10 Technical Presentations

10:40 – 11:00	A Study on the Development of a High Speed and High Power Spindle System for Quality Productive Machining	Masakazu Soshi
11:00 – 11:20	Systematic Study of Ultrasonic Vibration Assisted Electron Beam Irradiation	Zhigang Wang
11:20 – 11:35	Automatic NC Programming for Making Custom End Mills by Tool Maker's Six-axis Wire EDM	Xiang Cheng
11:35 – 11:55	Recent Upgrades of IMS Laboratory and Artistic Machining Initiatives in Progress	Peter Boonsom
11:55 – 12:10	A Study on Development of FPGA based Mechatronics Controller using Microcontroller as IP Core	Hector Gamero

12:10 – 12:20 Concluding Remarks

Prof. Kazuo Yamazaki

12:20 – 14:00 Lunch

14:00 – 14:20 Opening Address and Annual Activity Report
Prof. Kazuo Yamazaki, CEO and President of MTTRF

14:20 – 14:50 Foundation Lecture
Dr. Masahiko Mori, President and CEO, Mori Seiki, Co., Ltd.

14:20 – 14:50	Evolving Infrastructure for High End Machine Tool Business	Dr. Masahiko Mori
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14:50 – 15:00 Presentation of MTTRF 2008 Distinguished Service Award
Recipients: Dr. Richard Kegg

15:00 – 15:30 Technical Presentation by MTTRF 2008 Distinguished Service Award Recipient

15:00 -15:30	My experience in machine tools	Dr. Richard Kegg
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15:30 – 16:00 Coffee break

16:00 – 17:45 MTTRF 2008 Equipment Loan Award Presentation and Technical Presentation by Recipients

16:00 -16:30	Feed optimization for five-axes CNC machine tools with drive constraints	Burak Sencer, Prof. Yusuf Altintas (Univ. of British Columbia)
16:30 – 17:00	Cryogenic micromachining of PDMS for microfluidic chips	Yasuhiro Kakinuma, Nobuhito Yasuda, Prof. Tojiro Aoyama (Keio University)
17:00 – 17:30	Test piece for testing 5-axis machines	S. Bossoni, J. Cupic, Prof. Konrad Wegener (ETH Zurich, Switzerland)
17:00 – 17:45	Sodick Micro and Nano Machining Solutions	Peter Fonda (Sodick Co. Ltd. Chicago, USA)

18:30 – 21:30 Banquet Dinner

Day 2: July 2, 2008 (Wednesday)

07:00 – 08:30 Late Registration and Breakfast

08:30 – 09:00 Lecture by an Invited Lecturer

08:30 – 09:00	Mori Seiki University – Innovative and Efficient Training and Education for Modern Manufacturing Engineers	Roderick Jones (Mori Seiki USA)
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09:00 – 10:00 MTTRF 2008 Equipment Loan Award Presentation and Technical Presentation by Recipients

09:00 – 09:30	Tool path generation functionality and ultrasonic assisted machining of ceramic components using multi-axis machine tools	Prof. Bert Lauwers, D. Plakhotnik, M. Vanparys, W. Liu (Katholieke Universiteit Leuven)
09:30 – 10:00	A study on tool posture decision for process planning in 3+2-axis control milling	Prof. Keiichi Shirase, Toshiro Shibasaka, Keiichi Nakamoto, (Kobe University)

10:00 – 10:30 Coffee Break

10:30 – 12:00 MTTRF 2008 Equipment Loan Award Presentation and Technical Presentation by Recipients

10:30 – 11:00	Evaluation of tool life in micro milling	M.A.J. Huygens, Prof. Mustafizur Rahman, K. Neo, S. Tan, C. Tan (National Univ. Singapore)
11:00 – 11:30	Development of CAM system for multi-tasking machine tools	Takashi Kotani, Tohru Ishida, Prof. Yoshimi Takeuchi (Osaka University)
11:30 – 12:00	Analysis of cutting strategies for high-productive end milling and a long-term process control scheme to regulate tool life	Prof. Atsushi Matsubara Prof. Soichi Ibaraki (Kyoto University)

12:00 – 13:10 Lunch

13:10 – 13:30 Group Photo Taking

13:30 – 15:00 MTTRF 2008 Equipment Loan Award Presentation and Technical Presentation by Recipients

13:30 – 14:00	Measurements and inspection with machine tools by remote control in micro-milling operations – a first investigation	R.T. Coelho, A.J. Abackerli, Prof. Joao Fernando Oliveira, N.M. Torrisi, F.F. Watanabe (University of São Paulo)
14:00 – 14:30	Thermal aspects of actively driven rotary tool in turning	Akira Hosokawa, Prof. Takashi Ueda, Ryoji Onishi, Gregory A. Hyatt, Morihiro Hideta, Koji Okura (Kanazawa University)
14:30 – 15:00	Micromachining for the precision fabrication of microfluidic devices Interoperability Standards for Machine Tool Performance Monitoring	Athulan Vijayaraghavan, Jeffrey Hartnett, Sangkee Min, Prof. David Dornfeld (University of California, Berkeley)

15:00 – 15:30 Coffee Break

15:30 – 16:00 MTTRF 2008 Equipment Loan Award Presentation and Technical Presentation by Recipients

15:30 – 16:00	Research opportunities in multi scale high speed machining of aerospace and medical grade alloys	Prof. Nilufer Egrican Dr. Tugrul Ozel (Yeditepe University)
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16:00 – 16:30 Lecture by an Invited Lecturer

16:00 – 16:30	Binary Spaces / Machine Tool Simulation	Mr. Chuck Mathews (DP Technology Corporation)
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16:30 – 16:50 Concluding Address Dr. Masahiko Mori, Director of MTTRF

16:50 – 17:00 Concluding Remarks Prof. Kazuo Yamazaki, President of MTTRF

18:30 – 21:30 Sunset Dinner Cruise