MTTRF Annual Meeting

An annual general meeting of MTTRF, whose operation DMG MORI CO., LTD. (hereafter “the company”) participates in as the principle supporting company, was held at the InterContinental Mark Hopkins Hotel in San Francisco, California, USA from July 6 to 7, 2016, with the attendance of around 70 machine tool researchers from countries worldwide.

At the general meeting, “DMG MORI, Integrated Global Machine Tool Manufacturer “, a lecture by the president of the company, Dr. Masahiko Mori, was followed by the presentations on the cutting edge research results that will have a great influence on the future development of machine tools and machining technology.

The company will continue its activities to assist research on a global scale, including providing machine tools, for universities and public research institutions that research and develop innovative technology relating to machine tools.

* MTTRF (the Machine Tool Technologies Research Foundation) is a non-profit foundation approved by the United States government and established through contribution of basic financial resources by DMG MORI CO., LTD. in October 2002. (then, MORI SEIKI CO., LTD.). Its President is Dr. Kazuo Yamazaki, Professor of the University of California, Davis and Berkeley, and Dr. Masahiko Mori, President of DMG MORI CO., LTD., and Mr. Natsuo Okada, Advisor of DMG MORI CO., LTD., serve as Directors.

< Contents of MTTRF Annual Meeting >

1. ESPRIT 2016 Update
   Mr. D. Frayssinet/CEO/D.P. Technology Corp.

2. Cutting Characteristics of Coated Carbide End Mills Deposited by Filtered Arc Deposition Method
   -Physical Properties of TiCN and DLC Coated Films-
   Prof. A. Hosokawa/Kanazawa University

3. Improved Data-Driven and Empirical Energy Prediction Models for Precision Machine Tools
   Dr. S. Robinson/University of California Berkeley

4. Machining and Selective Laser Hardening of Complex Shaped Components on a Multi-axis Machining Center
   Prof. B. Lauwers/Katholieke Universiteit Leuven
5. Direct Cutting of Cemented Carbide by Nano-Polycrystalline Diamond Tools  
   Mr. T. Fukaya/Sumitomo Electric Hardmetal Corp.

6. Identification of Machine Tool Dynamics Under Operational Conditions  
   Prof. G. Campatelli/University of Firenze

7. Compensation of Cutting Fluid Influences on Five Axis Machine Tools  
   Prof. K. Wegener/ETH Zurich

8. Research on Cutting Texture by Turn-Milling Processes  
   Prof. Y. Ihara/Osaka Institute of Technology

9. Adaptive Control in End-milling Operation Based on Predicted Cutting Force  
   Geometrical Error Compensation using the On-machine Measurement of Machined Workpiece in 5-axis  
   Machining Centers  
   Prof. K. Shirase/Prof. R. Sato/Kobe University

    Prof. M. Soshi/University of California Davis

11. Optimal Energy Saving Trajectory Generation for Machine Tool Motion and Experimental Verification  
    Prof. N. Uchiyama/Toyohashi University of Technology

12. Toward Fabrication of Thin-Film Thermocouples on Tungsten Carbide Inserts with Metal Shadow  
    Masks to Measure Cutting Temperature.  
    Energy Analysis of Additive-Subtractive Manufacturing  
    Associate Prof. F. Pfefferkorn/University of Wisconsin Madison

13. Improvement of the Tribological Behavior of Surfaces Used in Mold and Die as well as Combustion  
    Engine Applications  
    Prof. F. Bleicher/University of Technology

14. Tool Wear in Milling of Medical Grade Cobalt Chromium Alloys  
    Prof. G. Byrne/University College Dublin

15. New MTTRF Projects at UNC-Charlotte  
    Prof. G. Goch/University of North Carolina at Charlotte