Program of Lectures and Oral Presentations

March 21, 2006:
Lecture by 2005 JSTP International Prize Winner
Chairman: M. Shiomi (Osaka University, Japan)
10:00-10:30  Recent Developments of Precision Forging in Japan
             K. Osakada (Osaka University, Japan)

Keynote Lectures
Chairman: M. Shiomi (Osaka University, Japan)
10:30-10:55  Some Contributions to the Stability of Cold Forming Processes
             K. Kuzman (University of Ljubljana, Slovenia)
10:55-11:20  Metal Forming Striking New Paths
             R. Kopp (RWTH Aachen, Germany)
11:20-11:45  Digital Innovation for Forging Processes
             S. Fujikawa (Nissan Motor Co., Ltd., Japan)

Keynote Lectures
Chairman: S. Hamaya (Nichidai Corporation, Japan)
13:25-13:50  Net Shape Forging of an External Helical Gear with Boss and Internal Spline
             K. Kondo (Toyota Technological Institute, Japan)
13:50-14:15  Forging Process Simulation and Casting Tool Design Rules for Rheology Forming
             C.G. Kang (Pusan National University, Korea)
14:15-14:40  Technology and Application of Servo Press
             S. Enomae (Komatsu Industries Corp., Japan)

Oral Presentations
Chairman: N. Bay (Technical University of Denmark, Denmark)
15:00-15:15  Analysis of the Double Cup Extrusion Test for Evaluation of Lubricants
             M. Shirgaokar (The Ohio State University, USA)
15:15-15:30  Industrial Ceramics in Cold Forging: Increasing Surface Quality and Dimensional Accuracy
             A. Putz (University of Erlangen-Nuremberg, Germany)
15:30-15:45  Recent Developments and Trends in Manufacturing of Precision Forging Dies by High-Speed Cutting
             R. Schramme (Hirschvogel Umformtechnik GmbH, Germany)
15:45-15:55  Discussion

Chairman: T. Altan (The Ohio State University, USA)
15:55-16:10  Method to Estimate Workpiece-Die Heat Transfer Coefficient on Precision Warm Forging Process
             A.L. Jr. Lenhard (Universidade Federal do Rio Grande do Sul, Brazil)
16:10-16:25  Stiffness and Contact-Time of Presses in Forging Operations  
A. Ghiotti (University of Padova, Italy)

16:25-16:40  Hot-Die Forging Press with Adaptive CNC for Hot-Die Precision Forging  
Y. Gladkov (Bauman Moscow State Technical University, Russia)

16:40-16:50  Discussion

March 22, 2006:
Lecture by 2005 JSTP International Prize Winner
Chairman: S. Fujikawa (Nissan Motor Co., Ltd., Japan)
9:00-9:30  Modelling and Testing of Friction and Lubrication in Metal Forming  
N. Bay (Technical University of Denmark, Denmark)

Keynote Lectures
Chairman: S. Fujikawa (Nissan Motor Co., Ltd., Japan)
9:30-9:55  Evaluation of Tribological Characteristics by Forging Type Friction Tests  
T. Nakamura (Shizuoka University, Japan)
9:55-10:20  Method and Application of Hard Coatings  
M. Yasuoka (Nachi-Fujikoshi Corp., Japan)

Keynote Lectures
Chairman: R. Matsumoto (Osaka University, Japan)
10:30-10:55  Application of Technology to Compete Successfully in Precision Forging  
T. Altan (The Ohio State University, USA)
10:55-11:20  Effect of Carbide Morphology on Material Property of Forging Die Steels  
T. Shimizu (Daido Steel Co., Ltd., Japan)
11:20-11:45  Prediction of Dimensional Difference of Product from Tool in Cold Forging  
T. Ishikawa (Nagoya University, Japan)

Oral Presentations
Chairman: R. Kopp (RWTH Aachen, Germany)
13:30-13:45  Process Improvements of Hot Forging with Hub Bearing Parts by Applying 3-D CAE Analysis  
M. Nakasaki (Sanyo Special Steel Co., Ltd., Japan)
13:45-14:00  Flashless Precision Forging of Flat Long Pieces  
A. Specker (Institute for Integrated Production Hannover, Germany)
14:00-14:15  Analysis of Cold Forging Parameters with Taguchi Methods  
S. Masera (Iskra Avtoelektrika d.d., Slovenia)
14:15-14:25  Discussion

Chairman: K. Kuzman (University of Ljubljana, Slovenia)
14:25-14:40  Prediction of Ductile Fracture in Cold Forming Processes with the Finite Element Method and Artificial Neural Networks  
D. Breuer (RWTH Aachen, Germany)
14:40-14:55  Applications of Hole Flanging with Counter-Pressure: Gear-Shape Forming and Edge Sizing  
H-S. Lin (National Formosa University, Taiwan)
14:55-15:10  Numerical Analysis and Design of Pinion with Inner Helical Gear by FEM
            T-W. Ku (Pusan National University, Korea)

15:10-15:20  Discussion