

Program Guide (Revised Oct. 31)

Thursday November 10

- 09:30-10:00 Departure (Kyungju TEMF Hotel) by Bus
- 10:00-11:00 HMC Technical Tour
- 11:00-12:30 HYSCO Technical Tour
- 12:30-14:00 Arrival (Kyungju Downtown), Lunch
- 14:00-17:00 Free Time (Sightseeing)
- 17:00-18:00 Registration
- 18:00-20:00 Banquet (Kyungju TEMF Hotel 'D'Hall)
- 20:00- Free Time (Hot Spring)

Program 1 - 『B』 Hall

Friday November 11

- 09:00-09:20 Registration
- 09:20-09:30 Opening Address
Prof. Youngsuk Kim (Chairman, Organizing Committee)
- Welcoming Address
Prof. Chungil Kang (President, KSTP)
- Congratulatory Address
Kyounghoan Na (MOST)
- Congratulatory Address
Prof. Kenich Manabe (Tokyo Metropolitan Univ.)

Session 1 (09:30 -10:30)

Chairperson : Yonghwan Kim (Chungnam Nat'l Univ.)

- 09:30-10:10 Cooperative Research of Japan Iron and Steel Institute on Evaluating Method of Tube Formability (Invited Speaker)

Yutaka Mihara

(Kagawa Univ., Japan)

- 10:10-10:30 The Effect of Prebending on the Formability in the Tube Hydroforming Process of an Aluminum Rear Subframe

Heonyoung Kim, Heetack Lim, Hyungjong Kim (Kangwon Nat' l Univ., Korea)

Dong Jae Lee (Austem Co., Korea)

Coffee Break (10:30-11:00)

Session 2 (11:00 -12:00)

Chairperson : Yeonsik Kang (POSCO)

- 11:00-11:20 Experimental and Analytical Investigation on the Forming Limits of Steel Tube

Kengo Yoshida, Toshihiko Kuwabara

(Tokyo University of Agriculture and Technology, Japan)

- 11:20-11:40 Effect Analysis of Bending Process on Hydroforming

Dusu Park, Yungyu Kim (HYSCO, Korea)

- 11:40-12:00 Integrated Optimization of Lightweight Hollow Structural Member and its Tube Hydroforming Process

Kenich Manabe, Kentaro Akimoto, Masamitsu Suetake, Tetsuya Yagami

(Tokyo Metropolitan Univ., Japan)

Lunch (12:00-13:30)

Session 3 (13:30 -14:30)

Chairperson : Sadakatsu Fuchizawa (Utsunomiya Univ.)

- 13:30-13:50 Deformation Behavior of Tubes with Rectangular Cross Section in Pre-pressing for Tube Hydroforming Process

Koji Suzuki, Shunsuke Toyoda, Masaru Fukumura, Qiang Yu, Masaki Shiratori

(JFE Steel Co., Japan)

13:50-14:10 Preform Design for Enhancement of Formability in Tube Hydroforming Process
Woojin Song, Gyungju Kang, Hanho Choi, Jeong Kim, Beomsoo Kang (Pusan Nat'l Univ., Korea)

14:10-14:30 Development of Manufacturing Technology for Crash Energy Absorption Bumper Stay with Hydroforming
Sungman Sohn, Munyong Lee, Bongjoon Kim, Younghoon Moon (Sungwoo Hitech Co., Korea)

Coffee Break (14:30-15:00)

Session 4 (15:00 -16:20)

Chairperson : Kengo Yoshida (Tokyo Univ.of Agriculture and Technology)

15:00-15:20 Tee-shaped Tube Hydroforming in TRIP Type Steel Tube
Shinya Sakamoto, Yoshino Terada, Kohsaku Ushioda, Masaaki Mizumura (NIPPON Steel Co., Japan)

15:20-15:40 A Study on the Friction Characteristics in Tube Hydroforming Process
Youngsuk Kim, Hyunsung Son (Kyungpook Nat'l Univ., Korea)

15:40-16:00 Effective Process Design and Robust Manufacturing for Hydroformed Parts
Stefan Werner, Bart Carleer, Chanho Lee (AutoForm Engineering Co., Korea)

16:00-16:20 Determination of Flow Stress of Tubular material from Experimental Bulge Test and Numerical Analysis of Tube Hydroforming Process
Heoseong Chan, Woojin Song, Chundal Park, Bosung Choi, Beomsoo Kang (Pusan Nat'l Univ., Korea)

Program 2 - 『C』 Hall

Friday November 11

Session 5 (09:30 -10:30)

Chairperson : Beomsoo Kang (Pusan Nat'l Univ.)

09:30-10:10 Hydroforming Applications in Automotive Parts (Invited Speaker)
Keunhwan Kim, Hanho Choi, Gisuk Chung, Yeonsik Kang, Sungho Park (POSCO, Korea)

10:10-10:30 Influence of Axial Feeding on the Growth of Circumferential Thickness Deviation in Free Hydraulic Bulging
Atsushi Shirayori, Sadakatsu Fuchizawa, Michiharu Narazaki (Utsunomiya Univ., Japan)

Coffee Break (10:30-11:00)

Session 6 (11:00 -12:00)

Chairperson : Bing Yang (Shanghai Jiaotong Univ.)

11:00-11:20 Bursting Failure Prediction in Tube Hydroforming Processes Using the FEM Combined with Forming Limit Stress Diagram
Woojin Song, Sangwoo Kim, Jeong Kim, Beomsoo Kang (Pusan Nat'l Univ., Korea)

11:20-11:40 Research on Hydroforming Tubular Parts with Large Perimeter Difference
Xiaosong Wang, Shijian Yuan, Wenjing Yuan (Harbin Institute of Technology, China)

11:40-12:00 Performance Comparison of Hydroformed Side Member to Stamped Side Member of Automotive Full Frame Assembly
Gyoungsu Jin, Hyosub Kim (HYSCO, Korea)

Lunch (12:00- 13:30)

Session 7 (13:30 -14:30)

Chairperson : Toshihiko Kuwabara (Tokyo Univ. of Agriculture and Technology)

13:30-13:50 Estimation of Formability of Steel Pipes by Ring Tensile Test

*Hidenori Yosimura, Akitoshi Hino, Yusuke Warizaya, Yutaka Mihara
(Kagawa Univ., Japan)*

13:50-14:10 Development of Production Engineering of Hot Bulge Forming

*Daiske Yamamoto, Izuru Hori
(Honda Engineering Co., Japan)*

14:10-14:30 Finite Element Simulation of the Tube Preforming
and Hydroforming Process for an Automobile Subframe

*Bing Yang, Shuhui Li, Peng Hu, Zongqin Lin, Weigang Zhang
(Shanghai Jiaotong Univ., China)*

Coffee Break (14:30- 15:00)

Session 8 (15:00 -16:20)

Chairperson : Soosik Han (Kumoh Nat'l Univ.)

15:00-15:20 Deformation Property of Steel Tubes in Rotary Draw -Bending
with Axial Tension

*Shuji Sakaki
(Tokyo Metropolitan Institute of Technology, Japan)*

15:20-15:40 The production Developments Driven by the Innovative
Hydroforming Methods

*Lang Lihui, Tao ri, Xianbin Zhou, Shijian Yuan, Joachim Danckert, Karl Brian Nielsen
(Beihang Univ., China)*

15:40-16:00 New Hydroforming Technology Uniform

*Daekern Kang, Hoju Lee, Cheolhyun Park
(Tallis Tech Co., Korea)*

16:00-16:20 Numerical Simulation Research on Hydro-Piercing

*Xiaosong Wang, Cong Han, Haibo Su, Shijian Yuan
(Harbin Institute of Technology, China)*