

ATILA FEM Tutorial (Post-Conference)
Micromechatronics Inc., State College, PA, USA
Thursday, 8 October 2009 9am-noon

ICAT 56th International Smart Actuator Symposium
Penn Stater Conference Hotel, State College, PA, USA

Tuesday, 6 October 2009

8:00 - 8:30 **On-site Registration;** Gathering and Refreshments

Session Chair: Kenji Uchino

8:30 - 8:40 Welcome Remarks, C. Pantano, Director of MRI
8:40 - 9:15 Annual Report of the ICAT, K. Uchino, Director of ICAT
9:15 - 9:30 Resonance and Antiresonance Modes, Y. Zhuang, MRI
9:30 - 9:45 High Power Piezoelectric ML Transformers, S. Ural, MRI
9:45 - 10:00 Loss in Magnetostriction, M. Tao, MRI

10:00 - 10:30 **Refreshment Break**

Session Chair: Shashank Priya

10:30 - 10:55 Multilayer Piezoelectric Devices, J. Lehrhofer, EPCOS, Austria
10:55 - 11:20 Microsystems for Minimally Invasive Diagnostics and Treatment,
Y. Haga, Tohoku University, Japan
11:20 - 11:45 Piezoelectric Actuator Components for Positioning Systems,
P. Pertsch, PI Ceramic GmbH, Germany

11:45 - 13:00 **Lunch Break**

Session Chair: Seok-Jin Yoon

13:00 - 13:25 Non-Pb Piezoelectrics, S. Nahm, Division of Materials Science and
Engineering, Korea University
13:25 - 13:50 Shape Memory Piezoelectric Actuator, T. Morita, University of
Tokyo, Japan
13:50 - 14:15 PMN-Single Crystals and Their Applications, H-Y Lee, Ceracomp,
Korea
14:15 - 14:40 Piezoelectric Energy Harvesting, S. Priya, Virginia Tech

14:40 - 15:10 **Refreshment Break**

Session Chair: Takeshi Morita

15:10 - 15:35 Efficient High Power Density Magnetic-less AC-DC Power
Conversion, Parameterized Design of Piezoelectric Transformers
and Topology Development, K. Sindling Meyer, Noliac, Denmark
15:35 - 16:00 Piezoelectric Actuators, H-J Schreiner, CeramTec, Germany
16:00 - 16:25 Piezo-Thin Films and USM, S. J. Yoon, KIST, Korea
16:25 - 16:50 Advanced Micro Motion Systems - Piezo Motors, Adaptive
Drives, Smart Sensors, D. Henderson, New Scale Tech

Evening Session

18:00 - 18:30 Bar Service
18:30 - 20:00 Dinner Banquet

ICAT 56th International Smart Actuator Symposium

Wednesday, 7 October 2009

7:30 - 8:00 **On-site Registration;** Gathering and Refreshments

Session Chair: Kenji Uchino

8:00 - 8:15 Piezoelectric Pump, R. Gosain, MRI

8:15 - 8:30 Multi-functional Micro Motors, S. Tuncdemir, MRI

8:30 - 10:30 **Exhibition & Poster/Refreshment Break**

[Upon Request, the Laboratory Tour is conducted:

8:40 Van leaves from the Penn Stater

9:00 - 10:15 ICAT/MRL Lab Tour

10:15 Van leave for the Penn Stater]

Session Chair: Ahmed Amin

10:30 - 10:55 Thin-sized Piezoelectric Loudspeakers for Cellular Phones,
M. Takahashi, NEC Corporation, Japan

10:55 - 11:20 Remote Sensing and Failure Analyses of Bridges, A. Dogan,
Anadolu University

11:20 - 11:45 New Applications of Piezoelectric Transformers, A. Vazquez
Carazo, Micromechatronics Inc.

11:45 - 13:00 **Lunch Break**

Session Chair: Sahn Nahm

13:00 - 13:25 Piezoelectric Films, S. Trolier-McKinstry, MRI

13:25 - 13:50 High Coupling Single Crystals and Recent Applications In Sound
Projectors, A. Amin, NUWC

13:50 - 14:15 Bio MEMS, S. Zheng, Bio Engineering PSU

14:15 - 14:40 The SPA30uXS, a new MRI-compliant Linear Piezo Micro-motor
for Medical Implants and Micro-robotic Applications,
F. Claeysen, Cedrat, France

14:40 - 15:10 **Refreshment Break**

Session Chair: Alfredo Vazquez Carazo

15:10 - 15:35 Damping of a Simple Piezoelectric Structure with Negative
Electric Circuits, J-C Debus, ISEN, France

15:35 - 16:00 Bioreactors and Microfabrication in Tissue Engineering: Potential
Actuator and Transducer Applications, G. Engelmayr, PSU

15:35 - 16:00 Drive/Control Circuits, G. Knowles, QorTek

16:25 - 16:50 A High Frequency, High Efficiency Resonant Driver for Piezo-
electric Devices, J. Kieres/A. Pandey, Trek Inc.

16:50 - 17:00 Closing Remarks, K. Uchino, ICAT Director

Fill-in Questionnaire and Collection

Uchino's Home Party

17:30 Shuttle cars will leave from the HOTEL for Uchino's house