

The 17th Symposium on Theory of Machines and Mechanisms

Date: July 16, 2011

Place: Conference Room 304, 3rd Floor, Ishikawadai 3 Bldg. ,
Tokyo Institute of Technology (Ohokayama Campus)
2-12-1 Ohokayama, Meguro-ku, Tokyo 152-8552
(8 min. walk from Ohokayama Station, Tokyu Meguro-line and Ohimachi-line)

Program:

9:55 Opening Address by Yoshihiko NAKAMURA
President, Jc-IFTOMM (Univ. of Tokyo)

Session 1 : Measurement of Human Motion and Forces (10:00-11:00)
Chair: Ko YAMAMOTO (Tokyo Tech.)

10:00 Markerless Motion Capture Sensor Fusion
*Kota ENOMOTO (Tokyo Univ. of Agriculture and Technology) and Venture GENTIANE

10:20 Recovery of 3 Dimensional Motion from 2 Dimensional Images by Using Human Behavior Database
*Wataru TAKANO (Univ. of Tokyo), Junichi ISHIKAWA and Yoshihiko NAKAMURA

10:40 An External Force Calculation at the Plural Contact Point from Dynamics Identification
*Yuta KAWASHIMA (Tokyo Univ. of Agriculture and Technology Kyoto Univ.),
Venture GENTIANE and KAWASHIMA (National Rehabilitation Center)

Session 2 : Development of Motion Mechanisms (11:20-12:20)
Chair: Masafumi OKADA (Tokyo Tech.)

11:20 Mock-up Designs of a Toy with Transformable Mechanism
*Moritaka TANIGUCHI (Institute of Technologists), Hiroyuki MATSUMOTO and
Hisami OHISHI (Kogakuin Univ.)

11:40 Development of Leg by Introducing Link Mechanism with Variable Reduction Ratio into Knee Joint
*Shunpei NOZAWA (Univ. of Electro-Communications), Akira MARUYAMA, Aigou MING
and Makoto SHIMOJO

12:00 Development of a Large Workspace Parallel Robot with Flexure Joints
*Keiji YONEMOTO (Tokyo Tech.), Zheng TONG, Masaru HIGUCHI (Nippon Inst. Tech.) and
Yukio TAKEDA (Tokyo Tech.)

12:20-13:50 Luncheon

Session 3 : Vibration and Mechanical Elements

(13:50-14:50)

Chair: Nobuyuki IWATSUKI (Tokyo Tech.)

13:50 Experimental Analysis of Nonlinear Vibration System by Higher Order Spectra

*Hiroyuki MATSUMOTO (Institute of Technologists), Hisami OISHI (Kogakuin Univ.),
Shinji YAMAKAWA, Taturou SHIBAZAKI and Hiroki MURAOKA

14:10 Prediction of Static and Dynamic Performance and Thermohydrodynamic Analysis of Gas Foil Bearings

*Kai FENG (Tokyo Tech.), Shigehiko KANEKO (Univ. of Tokyo),
Shigeki MATSUMURA (Tokyo Tech.) and Haruo HOUJOH

14:30 Research on Driver System Applying Bourdon Tube Actuator (BTA)

*Kengo OHNISHI (Tokyo Denki Univ.), Toru OSHIMA (Toyama Prefectural Univ.),
Takanori HIGASHIHARA (Takamatsu Prosthetic & Orthotic MFG Ltd.) and
Yukio SAITO (Tokyo Denki Univ.)

Session 4 : Actuators

(15:10-16:10)

Chair: Yoshihiko NAKAMURA (Univ. of Tokyo)

15:10 Development of Underwater Soft Robot Mimicking the Motion of Manta's Fin

*Takuma OSAKA (Univ. of Electro-Communications), Jun SHINTAKE, Aigou MING and
Makoto SHIMOJO

15:30 Development of a Rotary Transformer for Driving Electrostatic Motors

*Fumiaki KANAYAMA (Univ. of Tokyo), Takuya HOSOBATA, Akio YAMAMOTO and
Toshiro HIGUCHI

15:50 Back Drivable Actuator with Hydraulic Skeleton

*Hitoshi KIMURA (Tokyo Tech.), Takuya MATSUZAKI, Mokutaro KATAOKA and
Norio INOU

16:10 Closing Address by Haruo HOUJOH

Vice President, Jc-IFTtoMM(Tokyo Tech.)

16:30 Annual Meeting 2011

(16:30-17:30)

Address from president:

Yoshihiko NAKAMURA(Univ. of Tokyo)

Chair : Nobuyuki IWATSUKI (Tokyo Tech.)

17:40 Wine party

(17:40-19:00)

at Room 305, 3rd Floor, Ishikawadai 3 Bldg.

The fee is 5,000 Jpn yen and free for students.