

The 16th Symposium on Theory of Machines and Mechanisms

Date: November 6, 2010

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:

10:45 Opening Address by Yoshihiko NAKAMURA

President, Jc-IFTtoMM (Univ. of Tokyo)

Session 1 : Transmission Devices and Reducers and Their Vibration (10:45-11:45)

Chair: Nobuyuki IWATSUKI (Tokyo Tech.)

10:45 Centrifugal Pendulum Vibration Absorber for Gear System Free from Alignment Error
in Tuning Operation

*Shigeki MATSUMURA (Tokyo Tech.) and Haruo HOUJOH

11:05 Mapping of Nonlinear Vibration System by Higher Order Spectra

*Hiroyuki MATSUMOTO (Institute of Technologists), Hisami OHISHI (Kogakuin Univ.)
and Shinji YAMAKAWA

11:25 Research on Ratio Variable System for Transportation Device

*Masaharu KOMORI (Kyoto Univ.), Jungchul KANG, Fumi TAKEOKA and Yukihiro KIMURA

11:45-13:00 Luncheon

13:00 Keynote Speech (13:00-13:50)

Speaker : Dr. Yukio SAITO

Vice President of Jc-IFTtoMM

Speech Title: The Technological Innovation of Welfare Devices
and Near Future Prosthetic and Orthotic Limb

Chair : Haruo HOUJOH (Tokyo Tech.)

Session 2 : Robotic Mechanisms (14:00-14:40)

Chair: Yoshihiko NAKAMURA (Univ. of Tokyo)

14:00 Kinematic Synthesis of a Two-DOF Rotational Parallel Mechanism with Functions
for Detection and Compensation of Position Error of the Rotation Center of the Output Link

*Jun OKAMURA (Graduate Student, Tokyo Tech.), Shuta HANAGASAKI (JGC Corp.)
and Yukio TAKEDA (Tokyo Tech.)

14:20 Dental Patient Robot – Reproduction of Whole-body Motion and Legs –

*Norio OKUBO (Kogakuin Univ.), Hideaki TAKANOBU, Kenji SUZUKI, Hirofumi MIURA,
Takashi ISHIGURO, Kotaro MAKI (Showa Univ.), Yoshikazu MIYAZAKI,
Mutsumi MADOKORO, Takeshi TANZAWA, Kenichi MIYAMOTO (Tmsuk Co., Ltd.),
Koichi TAKATSUJI, Yusuke ISHII, Akihisa OKINO (Okino Industries Ltd.)
and Atsuo TAKANISHI (Waseda Univ.)

- Session 3 : Motion and Control of Human (15:00-16:00)
Chair: Norio INOU (Tokyo Tech.)
- 15:00 Information Structure Design of a Large Scale Motion Database
through Stochastic Modeling of Human Behaviors
*Wataru TAKANO (Univ. of Tokyo), Hirotaka IMAGAWA and Yoshihiko NAKAMURA
- 15:20 Pedestrian Control Based on Temporal/Spatial Frequency of Crossing Swarm Flows
*Ko YAMAMOTO (Tokyo Tech.) and Masafumi OKADA
- 15:40 Assist Control of Wearable Robot with Hydrostatic Actuator
without Utilizing Direct Exerted Force Measurement
*Hiroshi KAMINAGA (Univ. of Tokyo), Hirokazu TANAKA and Yoshihiko NAKAMURA
- Session 4 : Robot Control (16:20-17:00)
Chair: Masato YASHIMA (National Defense Academy)
- 16:20 Dynamical Analogy for Robot Motion Generation
*Tetsuro MIYAZAKI (Graduate School, Tokyo Tech.) and Masafumi OKADA (Tokyo Tech.)
- 16:40 Research of Swarm Intelligent Robot
– Enhancing of Swarm Action by Airship Robot and Mobile Robots –
*Masumi IIDA (Kogakuin Univ.), Hideaki TAKANOBU, Kenji SUZUKI, Hirofumi MIURA,
Masanao FUTAKAMI, Tomohiro ENDO and Yoshinobu INADA (Tokai Univ.)
- 17:00 Closing Address by Haruo HOUJOH
Vice President, Jc-IFTtoMM(Tokyo Tech.)
- 17:10 Annual Meeting 2010 (17:10-17:40)
Address from president:
Yoshihiko NAKAMURA(Univ. of Tokyo)
Chair : Nobuyuki IWATSUKI (Tokyo Tech.)
- 17:50 Wine party (17:50-19:20)
at Room 305, 3rd Floor, Ishikawadai 3 Bldg.
The fee is 5,000 Jpn yen and free for students.