The 24th Symposium on Theory of Machines and Mechanisms

Date: June 1 (Fri), 2018

Place: Nakashima hall, Food Science bldg., Yayoi campus,
The University of Tokyo 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657.
(4 min. walk from Todaimae Station, Tokyo Metro Nanboku Line, 5 min. walk from Nezu Station,
Tokyo Metro Chiyoda Line, 12 min. walk from Hongo 3-chome Station, Tokyo Metro Marunouchi Line)

Program:

9:20 Opening Address by Atsuo TAKANISHI
   President, Jc-IFToMM (Waseda Univ.)

Session 1: Kinematics (9:30 - 10:50)
Chair: Yoshihiko NAKAMURA (Univ. of Tokyo)

*Takashi MATSUZAWA (Graduate Student, Waseda Univ.), Asaki IMAI, Nobuaki SAKAI, Yuki YOSHIDA,
Koki YAMAGUCHI, Xiao SUN, Kenji HASHIMOTO (Waseda Univ.) and Atsuo TAKANISHI

9:50 A 7R Linkage for Ankle Rehabilitation: Kinematics and Force Analyses
*Chih-Ching HSIEH, Chin-Hsing KUO (National Taiwan University of Science and Technology),
Daisuke MATSUURA (Tokyo Tech) and Yukio TAKEDA

10:10 A General Iterative Method for Inverse Kinematics of 3-Limb Parallel Mechanism with 3 DOF Based on Kinematically Equivalent Mechanism
*Xinghai LIANG (Graduate Student, Tokyo Tech) and Yukio TAKEDA (Tokyo Tech)

10:30 Kinematic Characterization of an Extendable Mechanism Based on an Origami Structure While Considering Its Stability
*Hiroshi MATSUO (Graduate Student, Tokyo Tech), Daisuke MATSUURA (Tokyo Tech), Yusuke SUGAHARA and Yukio TAKEDA

10:50 Coffee Break

Special Lecture 1: Towards Autonomous and Safe Human-Robot/Robot-Robot Cooperative Tasks (11:00-12:00)
Lecturer: Prof. Wael SULEIMAN
   Electrical and Computer Engineering Department, Université de Sherbrooke, Canada
Chair: Gentiane VENTURE (TUAT)

Jc-IFToMM Annual Meeting 2018 (12:00-13:30)
Address from president: Atsuo TAKANISHI (Waseda Univ.)
Chair : Gentiane VENTURE (TUAT)
13:30  Growing Humanoid Robot and Rolling over Motion  
*Tomohiro KANAGAWA (Graduate Student, Kogakuin Univ.), Hideaki TAKANOBU (Kogakuin Univ.), Hiroaki HANAI, Kenji SUZUKI and Hirofumi MIURA

13:50  Walking Control of EHA Driven Humanoid Robot HYDRA  
*Kazuya MUROTANI (Graduate Student, Univ. of Tokyo), Tianyi KO, Ko YAMAMOTO (Univ. of Tokyo), Yoshihiko NAKAMURA

14:10  Whole-body Motor Control Performance Evaluation of the Hydrostatically Driven Humanoid “HYDRA”  
*Tianyi KO (Graduate Student, Univ. of Tokyo), Kazuya MUROTANI, Ko YAMAMOTO (Univ. of Tokyo), Yoshihiko NAKAMURA

14:30  Using Jamming Phenomenon in MR Fluid to Design a Finger Assistive Device  
*Misato BABA (TUAT) and Gentiane VENTURE

14:50  Coffee Break

Special Lecture 2: Organic Mechanical Materials Toward Soft-Robotics
Lecturer: Prof. Hideko KOSHIMA  
Research Organization for Nano & Life Innovation, Waseda University.
Chair: Yoshihiko NAKAMURA (Univ. of Tokyo)

16:10  Closing Address by Nobuyuki IWATSUKI  
Vice President, Jc-IFToMM (Tokyo Tech.)

Laboratory tour

17:30  Technical networking event  
Room 31A, 3rd floor of Faculty of Engineering Bldg.2.
The fee is 5,000 JPY and free for students.