

## Biomedical Robotics III

**Date / Time** Aug. 23 (Tue.), 2022 / 10:00-11:30

**Room** Room 513

**Session Chair** TBA

[TuO1C.1]

10:00-10:15

**PondusHand: Estimation Method of Fingertips Force by User's Forearm Muscle Deformation based on Calibration with Mobile Phone's Touch Screen**

Satoshi Hosono, Tamon Miyake, and Emi Tamaki

[TuO1C.2]

10:15-10:30

**The Effect of Design and Control Parameters of a Soft Robotic Fish Tail to Maximize Propulsion Force in Undulatory Actuation**

Robin Hall, Erik Skorina, Shou-Shan Chiang, and Cagdas D. Onal

[TuO1C.3]

10:30-10:45

**Free-Living Ambulatory Activity Classification: A Comparative Analysis of Wrist-Worn, Insole-Embedded, and Phone-Embedded Sensors**

Ton T. H. Duongy, Leo Musacchiay, David Uherz, Jacqueline Montesz, and Damiano Zanotto

[TuO1C.4]

10:45-11:00

**Insect-Tarsus-Inspired Legs: Toward Improvement of Gripping Ability of Small Tree-Climbing Robots**

Keitaro Ishibashi and Hiroyuki Ishii

[TuO1C.5]

11:00-11:15

**Maintaining Mobility in Older Age - Design and Initial Evaluation of the Robot SkyWalker for Walking & Sit-to-Stand Assistance**

Anas Mahdi, Jonathan Feng-Shun Lin, and Katja Mombaur

[TuO1C.6]

11:15-11:30

**LocoESIS: Deep-Learning-Based Leg-Joint Angle Estimation from a Single Pelvis Inertial Sensor**

Tsige Tadesse Alemayoh, Jae Hoon Lee, and Shingo Okamoto