

Bio-inspired control for interlimb coordination and adaptation in legged robots

Workshop Program: October 29 (full-day), 2017

Location: The Clock Tower Centennial Hall, Conference Room III, Yoshida Campus, Kyoto University

09:30 Workshop start

09:30-09:45 Brief Introduction, announcements, Poramate Manoonpong

Six-legged and multi-legged locomotion

09:45-10:15 Six legged locomotion: A comparative study of different insect models, Amir Ayali

10:15-10:45 Biological inspired approaches to robot control try to mimic the motor performance found in animals, Malte Schilling

10:45-11:15 Break

11:15-11:45 Simple model analysis of the effect of sensory feedback on multi-legged interlimb coordination: Existence of direct, retrograde and source wave gaits, Yuichi Ambe

11:45-12:15 Improvement of turning maneuverability of a multi legged robot by the straight walk instability, Shinya Aoi

12:15-12:45 From a dung beetle to a multifunctional robot: A bio-inspired approach, Poramate Manoonpong

12:45-14:15 Break

Four-legged locomotion

14:15-14:45 Dynamic locomotion in legged machines, Alexander Spröwitz

14:45-15:15 Bio-inspired gait transition for quadruped robots, Yasuhiro Fukuoka

15:15-15:45 Biological approach and engineering approach for walking, Gen Endo

15:45-16:15 Break

Two-legged locomotion

16:15-16:45 Muscular Skeletal Structure and Adaptive Bipedal Walking, Koh Hosoda

16:45-17:15 Inter and intralimb coordination for adaptive bipedal walking: Tegotae-based approach, Dai Owaki

17:15-17:45 Discussion & closing, Shinya Aoi