

Special Session for Mecatronics2018

(1) Session title

Mechatronics in Rehabilitation and Sports

(2) Session description (about 200 words).

To assist, recover, and augment the physical function of a human being with mechatronics technologies have become common topics in welfare and sports fields. These technologies have been developed and investigated separately in each field so far. Thus, the organizers propose this special session to discuss how human-assistive and augmentation technologies have been exploited in welfare and sports fields such as rehabilitation, training, and so forth from the viewpoint of "mechatronics." This session aims to share and unite many knowledge and technologies found in each field to develop these fields. Topics of interest include, but are not limited to:

- (1) Exoskeletons for human-assist and augmentation
- (2) Rehabilitation devices for recovering human physical function
- (3) Training devices for enhancing human physical function
- (4) Sensing technologies for rehabilitation and training
- (5) Analysis methods for quantitative assessment of human physical function
- (6) Application examples of above technologies in real world

(3) Session organizer(s) (name, affiliation, contact information)

Prof. Takuya Hashimoto, Tokyo University of Science

Prof. Toshiaki Tsuji, Saitama University