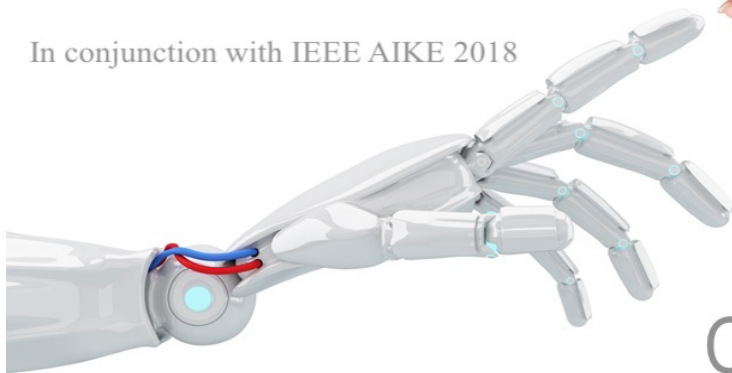


The first IEEE International workshop :

## From Humans, to Robots and Back (HRoba): A workshop on human-centered robotics

In conjunction with IEEE AIKE 2018



# CALL FOR PAPERS

Photo credit: iStock photo

**Location:** Laguna Hills, CA, USA

**Date:** Oct 1, 2018 - Oct 3, 2018

**Website:** <https://hroba.github.io>

Nowadays, a lot of attention is given by many different research areas to the human-centered robotics topic. Despite that robots are becoming more and more part of humans' daily lives in fields such as healthcare, entertainment, education, social assistance, physical therapy, and others, they are barely seen in the real world and in the service of people in need. This is partly due to the high prices of the proposed solutions, but also due to a lack of guaranteed, safe behavior or non-intrusive solutions. Furthermore, for practical reasons, some of these solutions were derived from existing systems that were developed for industrial or research settings, which might not be sufficiently adapted to human-centered contexts.

### AIM & SCOPE:

This workshop aims at bringing together scientists from different areas (human-robot interaction, artificial intelligence and machine learning, assistive and rehabilitation robotics, robotic systems design, field robotics, wearable robotics, biomedical and clinical domains, etc.) which have, as research interest, a deeper understanding of humans to propose solutions which:

- can be used by robots to safely interact, assist and cooperate with humans or
- can help at developing solutions adapted to human needs.

### TOPICS:

Potential topics include, but are not limited to:

- Physical and social interaction among robots and humans
- Wearable robotics systems for rehabilitation and human augmentation
- Bio-inspired models and controllers
- Learning from demonstrations for Human-Robot Collaboration or Human-Human Collaboration Autonomy in dynamic and uncertain environments
- Applications and challenges in human-centered robotics (e.g. rehabilitation, social interaction/therapy, to provide assistance)

### IMPORTANT DATES:

Submission deadline: August 10th, 2018

Acceptance notification: September 1st, 2018

### SUBMISSION INFORMATION:

Prospective participants are welcome to submit either full papers (**6-8 pages**<sup>\*all included</sup>), extended abstracts (**4 pages**<sup>\*all included</sup>) or posters (**2 pages**<sup>\*all included</sup>) in the conference format (IEEE standard).

To submit your manuscript (pdf file) please send it by email to [panchea@lix.polytechnique.fr](mailto:panchea@lix.polytechnique.fr) and/or [francois.ferland@usherbrooke.ca](mailto:francois.ferland@usherbrooke.ca) with the subject "HRoba submission".

### Workshop Organizers:

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