Humanware International Symposium 2017

Welcome

Humanware Innovation Program (HWIP) in Osaka University is dedicated to foster future leaders, who can change the direction of innovation and construct flexible, robust, and sustainable systems for our global society. Currently, people and machines are closely interconnected and form a complex and dynamic large-scale network, which puts an increasing burden on the environment and causes a variety of unexpected problems. One urgent challenge in this information society is the development of humanware: information technology that employs flexibility, robustness, and sustainability found in biosystems, to create an information society attuned to both humans and the environment.

In order to develop expertise related to humanware, HWIP students are asked to comprehend three dynamics: "biological dynamics" of organisms that evolve and adapt to dynamically changing environment, "information dynamics" required to construct an information society attuned to both humans and the environment, and "cognitive dynamics" allowing higher brain functions to control overwhelming new information. Moreover, "human-robot interaction" is also another issue that HWIP students should be able to address for the future society.

In this symposium, we are very pleased to invite four distinguished scholars from "information technology", "biological science", "cognitive science", and "robotics", respectively, as role models of HWIP students. We will discuss behavior and principle of how elements in biological and cognitive networks adaptively and robustly cooperate, and show how they stabilize the network functions. Furthermore, biologists, computer scientists, brain scientists, and robotics engineers will also put their heads together to discuss collaboration beyond their disciplines, which finally enables us to find novel solutions against fundamental or applied problems we face.

We are pleased to welcome all of you to this seminar at Osaka University.

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