Flexible Cooperation between Human and Robot

by interpreting Human Intention from Gaze Information

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In this research, we have developed a method to realize flexible cooperation between human and robot which reflects the intention and state of human by using gaze information. This physiological information expresses the process of thinking directly, so it enables us to read the internal condition such as hesitation or search in decision making process. We propose a method to interpret the intention and condition from the latest history of gaze movement and determine an appropriate cooperative action of a robot based on it so that the task proceeds smoothly. Finally, we show experimental results by using a humanoid-type robot.

Publication

1. Kenji Sakita, Jun Takamatsu, Koichi Ogawara, Hiroshi Kimura and Katsushi Ikeuchi: "**Cooperation of Human and Robot using Human Gaze Information**," 21th Annual Conf. of the Robotics Society of Japan, 2003.9 in Tokyo, Japan.

2. Kenji Sakita, Koichi Ogawara, Hiroshi Kimura and Katsushi Ikeuchi: "**Flexible Cooperation between Human and Robot by interpreting Human Intention from Gaze Information**," Meeting on Image Recognition and Understanding (MIRU), 2004.7, in Hokkaido, Japan.(to appear)