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SERVICE ROBOT SYSTEM IN A STORE USING PERSONAL ATTRIBUTE

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Abstract. *This paper shows service robot system, which provides information considering user's personal attribute. In this research we focused on two attributes, "Preference attribute information and Body attribute information". The authors defined "Preference attribute information" as information about preference, which has been able to get from a person's daily life such as favorite color; "Body attribute information" as information based on person's bodily features such as sex. The authors call them "Personal attribute information". The authors aimed to implement a "human-centered system". To implement the human-centered system, the authors had networked robots, share personal attribute information and provide useful information for user. In addition, the authors took into account "Humatronics" and "Ambient intelligence". This paper shows experiments that the system provides information about clothes by using user's "preference attribute information and body attribute information" in a clothing store. Finally authors discussed the utility of the system and summarized our service robot system.*
Keywords: Personal attribute information, Body attribute information, Preference attribute information, Networked robot, Humatronics, Ambient intelligence

1. **Introduction.** The products related to IT have been developed, and have high performance. But they have so many functions that people cannot use all functions. So the systems have come to provide the functions which suit each person by interacting with each other as illustrated Figure 1. These systems are called "human-centered systems". Human-centered systems have come to be implemented by networking robots with spreading the word "ubiquitous network".

In this research, the authors define "body attribute information" as information based on person's bodily features such as sex, "preference attribute information" as information that is can able to get from a person's daily life such as favorite color. The authors define "body attribute information" and "preference attribute information" as "personal attribute information". The authors think human-centered system must be able to understand people, and easy to be use by anybody. To implement the human-centered system, the authors have the robots share personal attribute information, and the system provided a service which suited a user.

2. **The Study of Networked Intelligence and Robots.** Figure 2 shows major efforts that are led by the government agencies. A lot of efforts are being made. Ministry of Public Management, Home Affairs, Posts and Telecommunications held workshop by headed Prof. Tokuda for networked robots technology, which aims to build an open platform.