## Laboratory / Center profile

## Ubiquitous Communication Laboratory <a href="http://haruyama.sdm.keio.ac.jp/ubiquitous/">http://haruyama.sdm.keio.ac.jp/ubiquitous/</a> (in Japanese)

Representative: Professor Shinichiro Haruyama

## **Purpose**

The Ubiquitous Communication Laboratory pursues a society where people can understand each other by communicating whenever and wherever they want (i.e., ubiquitously), a society where anybody can live safely and soundly, and a society where new services can blossom. More specifically, we organize weekly seminars to exchange ideas and opinions with companies and organizations, exploring how to realize such a society. Our research covers a wide range of topics, such as ways to support people with disabilities, safe automobile driving, location detection using visible light and its standardization.



Members of the Ubiquitous Communications Laboratory

## **Examples of Our Activities**

- Research and development of systems that enable people with visual impairment to travel safely indoors and outdoors
- Research and development of information communications systems for the elderly with hearing impairment
- Research on methods of supporting self-motivated career development for people with development disabilities
- Research and development of indoor navigation using visible light communication and its institutional arrangement
- Proposal of visible light communication to the Japan Electronics and Information Technology Industries Association (JEITA) for a Japanese standard and to the International Electrotechnical Commission (IEC) for a global standard
- Research and development of safe driving support for automobiles using visible light communication, wireless communication and image processing technology
- Development of tools for improving golf swings
- Exploration of the expansion of apparel markets using WEB
- Development of new content use with digital watermarking technology
- Development of robot systems as a preparation for the architecture sector of the ET Robot Contest 2013



Developing a robot system for the ET Robot Contest 2013



SDM Research Institute, Graduate School of System Design and Management at Keio University Collaboration Complex, Keio University, 4-1-1 Hiyoshi, Kohoku-ku, Yokohama, Kanagawa 223-8526 Tel: 045-564-2518 Fax: 045-562-3502 E-mail: <a href="mailto:sdm@info.keio.ac.jp">sdm@info.keio.ac.jp</a>

