



Hindawi

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Special Issue on
Healthcare Sensors for Daily Life

CALL FOR PAPERS

With the advent of information and communication technology (ICT) and its pervasive application in medical and healthcare domains, life expectancy worldwide has extended over the 80s in both female and male. Decline in health condition due to aging would deteriorate personal quality of life and pose extreme burden in global financial expenditure. Healthy aging is therefore of paramount importance.

To support “aging in place” and “daily health promotion,” accurate detection and early warning of health condition change are indispensable and imminent. Numerous technical innovations are provoked. Seamless monitoring of physiological information in various living scenarios without disturbing daily activities over a long-term period can significantly enhance caregivers’ ability to deliver evidence-based care and become one of the effective approaches.

In pursuing seamless monitoring of multifaceted physiological information in daily life environment, many academic goals have been challenged and variety of technological conundrums has been experienced over the past decades. Endeavors in research and development have gone through different approaches which enhance several aspects such as miniaturization, comfortableness, and concealment to achieve better user affinity in different application scenarios of daily life. Miniaturization aims at implementation of portable monitors for ambulatory application. Wearable monitors target pervasive application in daily activities without much discomfort. Invisible methods are usually realized by concealing sensors or transducers into furniture and appliances for indoor application. Some of these outcomes have matured and have been commercialized in daily setting. Yet, some of them remain unanswered and require further elaboration.

We expect that future household will become a promising hub for seamless monitoring of various physiological information in lifelong healthcare.

We invite overview and original papers describing current and expected challenges along with the potential solutions for ubiquitous sensors and system in health care of aged society. Both experimental and theoretical papers are welcome.

Potential topics include, but are not limited to:

- ▶ Health monitoring, health promotion, and disease detection and prevention
- ▶ Nonintrusive and unobtrusive monitoring in daily living
- ▶ Embedded sensor and systems included wearable sensor and smart shirts
- ▶ Ubiquitous home healthcare system
- ▶ Body area network
- ▶ Governmental regulation on the ubiquitous sensors
- ▶ Big data analysis with long-term recordings in daily living and environment
- ▶ ICT infrastructure and data security
- ▶ Rehabilitation and function restoring
- ▶ Health assistance: disability compensation for higher quality of life
- ▶ Sport medicine: function support and body monitoring

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/js/hsdl/>.

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