**All-day wearable healthcare monitoring sensor system**

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Wearable devices are widely used in the smart healthcare monitoring system

to detect changes in user parameters through applications such as wrist-

watches, bands, and clothing electronic skin. In addition, multimode devices

enable monitoring of vital signs, helping diagnose and prevent diseases.

A wearable device detects the user's biological signals such as body temperature,

movement, heartbeat, and humidity level, transmits the information to the

mobile phone, and sends the information to an emergency center/family/

clinician through cloud computing or wireless communication systems. This

all-day monitoring system enables the user's status information to be moni-

tored 24 h a day to ensure appropriate treatment, thereby facilitating highly

personalized care due to its human-centricity. When integrated with higher-

level infrastructure, it is expected to be useful in healthcare scenarios, provid-

ing benefits to multiple stakeholders. In addition, it will help protect people

exposed to potentially life-threatening environments such as military person-

nel, first responders, and deep-sea and space explorers. In this review, the

components for implementing an all-day monitoring system are described,

including the electrode design strategy for realizing a skin attachable e-skin

device. Issues related to flexible storage devices and recent research results are

also discussed.