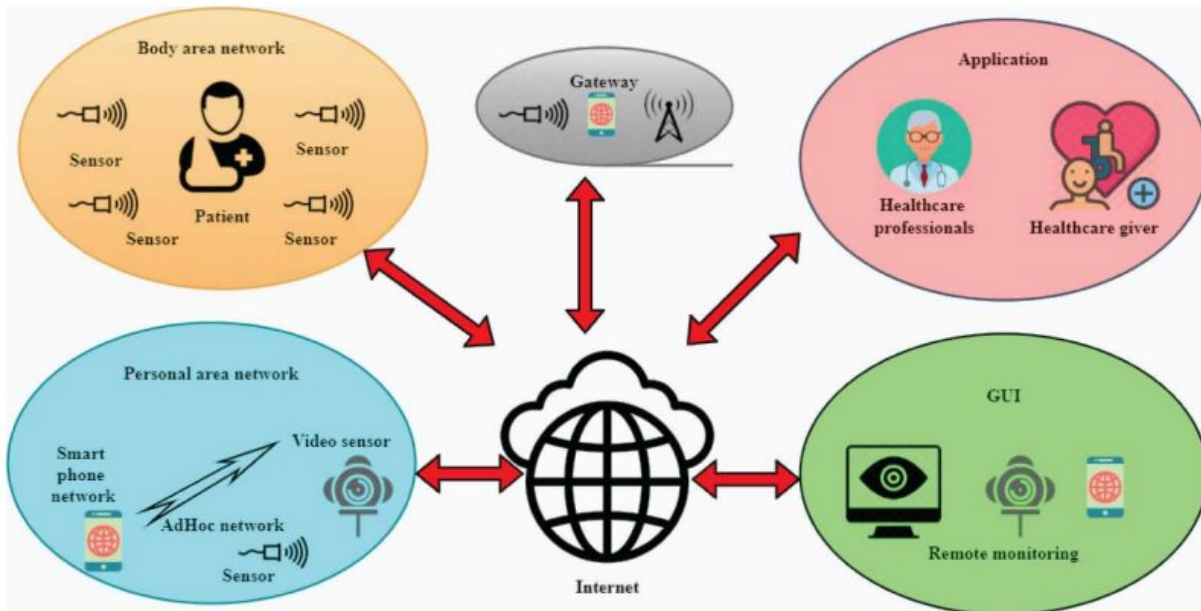


Wireless sensor networks have potential in health care and agriculture, says study

February 7 2023



A basic healthcare WSN application scenario. Credit: Authors of the study

A new study published in the *International Journal of Data Warehousing and Mining* has found that personal health biomedical clothing based on wireless sensor networks (PH-BC-WSN) has the potential to significantly enhance access to quality health care and boost food production through precision agriculture. The technology, which is part of the Internet of Things (IoT), enables the creation of more efficient health care and medical asset monitoring systems.

The Internet of Things (IoT) refers to the interconnected network of physical devices, vehicles, [home appliances](#), and other items embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. The IoT allows for the seamless and automatic flow of data between devices, enabling a more connected and automated world.

The study emphasizes the importance of having a fast, reliable, and energy-efficient connection between [wireless sensor networks](#) (WSNs). To achieve this, the control specifications, networking layers, media access control, and physical layers must be optimized or co-designed. Researchers also highlight several challenges associated with the use of PH-BC-WSN, including privacy and cyber security issues, an increased risk of malpractice lawsuits, and higher costs for both doctors and patients.

The paper extensively discussed the potential risks of medical data eavesdropping, manipulation, fabrication of warnings, denial of services, and electromagnetic attacks.

The results of the study indicate that while PH-BC-WSN has the potential to improve health care and agriculture, there are also significant privacy and [security concerns](#) that must be addressed.

The authors call for further research to address these challenges and ensure that the technology is used in a responsible and ethical manner. In conclusion, PH-BC-WSN holds promise as a tool for improving health care and agriculture, but it is important to address the associated privacy and [security risks](#) to ensure that it is used in the best interests of patients and consumers.

More information: Ge Zhang et al, Personal Health and Illness Management and the Future Vision of Biomedical Clothing Based on

WSN, *International Journal of Data Warehousing and Mining* (2022).
[DOI: 10.4018/IJDWM.316126](https://doi.org/10.4018/IJDWM.316126)

Provided by IGI Global

Citation: Wireless sensor networks have potential in health care and agriculture, says study (2023, February 7) retrieved 26 April 2024 from <https://techxplore.com/news/2023-02-wireless-sensor-networks-potential-health.html>

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