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Abstract

Use of technology in healthcare to improve quality of life, real-time patient monitoring and large scale studies of human behavior is very active area of research. Advances in ubiquitous communication, pervasive computing and ambient intelligence has given rise to smart objects that can communicate and cooperate to build network of things to perform physical computing. Pervasive healthcare system use smart objects to collect data about physical, physiological and behavioral processes. Goal of this research is to design an intelligent wallet for individuals that collects and stores human bio-signals using medical sensors, and context data using environment and motions sensors on personal smart devices. The wallet detects abnormal pattern and shares data and findings with appropriate persons or medical systems. This paper presents system architecture and proof-of-concept implementation of a context aware intelligent wallet for healthcare. Core of the system is designed around user and personal smart devices.

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Index Terms

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Keywords

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