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Review on Data Acquisition of Electrocardiogram Biometric Recognition in Wearable Smart Textile Shirts
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Abstract
Electrocardiogram (ECG) wearable smart textile shirt has widely been investigated due to its high flexibility, reusability, comfort, and the possibility of being used for home-based, real-life activities and real-time measurement. ECG smart textile shirt is an embedded textile sensor inside a cloth that can capture ECG data in more convenient ways and ease user-friendly, especially for continuous and long-term ECG data acquisition outside the laboratory environment. However, the current challenge with ECG smart textile shirt is the reliability and quality of data acquired by the wearable smart textile. This review will mainly focus on the research strategies in the early stages regarding data acquisitions in ECG smart textile shirt. It will introduce researchers' data acquisition methods in the biometric recognition system using wearable ECG smart textile. The Scopus and Mendeley databases review may help future researchers consider different parameters, which affect the reliability and data quality when selecting data acquisitions strategies in a biometric recognition system using wearable ECG smart textile shirt.

Author Keywords
acquisition; biometric; ECG; smart textile; wearable

Index Keywords
Biometrics, Data acquisition, Electrocardiography, Reusability, Wearable technology; Biometric recognition, Biometric recognition system, Ecg data acquisitions, High flexibility, Laboratory environment, Quality of data, Real time measurements, Research strategy; Smart textiles

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