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Titolo	Wearable and Wireless Systems for Healthcare I : Gait and Reflex Response Quantification / / by Robert LeMoyne, Timothy Mastroianni
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Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XIV, 134 p. 34 illus., 24 illus. in color.)
Collana	Smart Sensors, Measurement and Instrumentation, , 2194-8402 ; ; 27
Disciplina	621.382
Soggetti	Electrical engineering Physiotherapy Human physiology Application software Communications Engineering, Networks Human Physiology Information Systems Applications (incl. Internet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Wearable and wireless systems for gait analysis and reflex quantification -- Traditional clinical evaluation of gait and reflex response by ordinal scale -- Quantification systems appropriate for a clinical setting -- The rise of inertial measurement units -- Portable wearable and wireless systems for gait and reflex response quantification -- Smartphones and portable media devices as wearable and wireless systems for gait and reflex response quantification -- Bluetooth inertial sensors for gait and reflex response quantification with perspectives regarding Cloud Computing and the Internet of Things -- Quantifying the spatial position representation of gait through sensor fusion -- Role of machine learning for gait and reflex response classification -- Homebound therapy with wearable and wireless systems -- Future perspective of Network Centric Therapy.
Sommario/riassunto	This book provides visionary perspective and interpretation regarding the role of wearable and wireless systems for the domain of gait and reflex response quantification. These observations are brought together in their application to smartphones and other portable media

devices to quantify gait and reflex response in the context of machine learning for diagnostic classification and integration with the Internet of things and cloud computing. The perspective of this book is from the first-in-the-world application of these devices, as in smartphones, for quantifying gait and reflex response, to the current state of the art. Dr. LeMoyne has published multiple groundbreaking applications using smartphones and portable media devices to quantify gait and reflex response.

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