1. Record Nr. UNINA9910557900003321 Autore Di Nardo Francesco Titolo Recent Advances in Motion Analysis Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 1 electronic resource (192 p.) Descrizione fisica Soggetti Technology: general issues Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia The advances in the technology and methodology for human movement Sommario/riassunto capture and analysis over the last decade have been remarkable. Besides acknowledged approaches for kinematic, dynamic, and electromyographic (EMG) analysis carried out in the laboratory, more recently developed devices, such as wearables, inertial measurement units, ambient sensors, and cameras or depth sensors, have been adopted on a wide scale. Furthermore, computational intelligence (CI) methods, such as artificial neural networks, have recently emerged as promising tools for the development and application of intelligent systems in motion analysis. Thus, the synergy of classic instrumentation and novel smart devices and techniques has created unique capabilities in the continuous monitoring of motor behaviors in different fields, such as clinics, sports, and ergonomics. However, realtime sensing, signal processing, human activity recognition, and characterization and interpretation of motion metrics and behaviors from sensor data still representing a challenging problem not only in laboratories but also at home and in the community. This book

addresses open research issues related to the improvement of classic approaches and the development of novel technologies and techniques in the domain of motion analysis in all the various fields of application.