Record Nr. UNINA9910135038803321 Wireless computing in medicine: from nano to cloud with ethical and **Titolo** legal aspects // edited by Mary Mehrnoosh EshaghianWilner Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, 2016 ©2016 **ISBN** 1-118-99361-6 1-118-99360-8 1-118-99362-4 Descrizione fisica 1 online resource (758 pages): illustrations (some color), photographs Collana Nature-Inspired Computing Series THEi Wiley ebooks SCI010000TEC027000 Classificazione Disciplina 610.285 Soggetti Telecommunication in medicine - Moral and ethical aspects Telecommunication in medicine - Law and legislation Nanotechnology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. "Provides a comprehensive overview of wireless computing in medicine." Sommario/riassunto with technological, medical, and legal advances This book brings together the latest work of leading scientists in the disciplines of Computing, Medicine, and Law, in the field of Wireless Health. The book is organized into three main sections. The first section discusses the use of distributed computing in medicine. It concentrates on methods for treating chronic diseases and cognitive disabilities like Alzheimer's, Autism, etc. lt also discusses how to improve portability and accuracy of monitoring instruments and reduce the redundancy of data. It emphasizes the privacy and security of using such devices. The role of mobile sensing, wireless power and Markov decision process in distributed computing is also examined. The second section covers nanomedicine and discusses how the drug delivery strategies for chronic diseases can be efficiently improved by Nanotechnology enabled materials and devices such as MENs and

Nanorobots. The authors will also explain how to use DNA computation in medicine, model brain disorders and detect bio-markers using nanotechnology. The third section will focus on the legal and privacy issues, and how to implement these technologies in a way that is a safe and ethical. Defines the technologies of distributed wireless health, from software that runs cloud computing data centers, to the technologies that allow new sensors to work Explains the applications of nanotechnologies to prevent, diagnose and cure disease Includes case studies on how the technologies covered in the book are being implemented in the medical field, through both the creation of new medical applications and their integration into current systems Discusses pervasive computing's organizational benefits to hospitals and health care organizations, and their ethical and legal challenges Wireless Computing in Medicine: From Nano to Cloud with Its Ethical and Legal Implications is written as a reference for computer engineers working in wireless computing, as well as medical and legal professionals. The book will also serve students in the fields of advanced computing, nanomedicine, health informatics, and technology law"-- Provided by publisher.

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