Record Nr. UNINA9910146070903321 Autore Prutchi David Titolo Design and development of medical electronic instrumentation [[electronic resource]]: a practical perspective of the design, construction, and test of medical devices / / David Prutchi, Michael **Norris** Hoboken, N.J., : Wiley-Interscience, c2005 Pubbl/distr/stampa **ISBN** 1-5231-3071-7 1-280-27528-6 9786610275281 0-470-36173-5 0-471-68183-0 1-60119-386-6 0-471-68184-9 Descrizione fisica 1 online resource (479 p.) Altri autori (Persone) NorrisMichael Disciplina 681/.761 Soggetti Medical instruments and apparatus - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto DESIGN AND DEVELOPMENT OF MEDICAL ELECTRONIC INSTRUMENTATION; CONTENTS; PREFACE; DISCLAIMER; ABOUT THE AUTHORS: 1 BIOPOTENTIAL AMPLIFIERS: 2 BANDPASS SELECTION FOR BIOPOTENTIAL AMPLIFIERS; 3 DESIGN OF SAFE MEDICAL DEVICE PROTOTYPES: 4 ELECTROMAGNETIC COMPATIBILITY AND MEDICAL DEVICES: 5 SIGNAL CONDITIONING, DATA ACQUISITION, AND SPECTRAL ANALYSIS: 6 SIGNAL SOURCES FOR SIMULATION, TESTING, AND CALIBRATION; 7 STIMULATION OF EXCITABLE TISSUES; 8 CARDIAC PACING AND DEFIBRILLATION; EPILOGUE; APPENDIX A: SOURCES FOR MATERIALS AND COMPONENTS; APPENDIX B: ACCOMPANYING CD-ROM CONTENT; INDEX Design and Development of Medical Electronic Instrumentation fills a Sommario/riassunto gap in the existing medical electronic devices literature by providing

background and examples of how medical instrumentation is actually designed and tested. The book includes practical examples and

projects, including working schematics, ranging in difficulty from simple biopotential amplifiers to computer-controlled defibrillators. Covering every stage of the development process, the book provides complete coverage of the practical aspects of amplifying, processing, simulating and evoking biopotentials. In addition, two ch