1. Record Nr. UNISA996418449603316

Titolo	Laser Doppler Vibrometry for Non-Contact Diagnostics [[electronic resource] /] / edited by Kristian Kroschel
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-46691-4
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xi, 182 pages) : illustrations
Collana	Bioanalysis, Advanced Materials, Methods, and Devices, , 2364-1118 ; ; 9
Disciplina	616.120754
Soggetti	Lasers Photonics Biomedical engineering Biophysics Biological physics Signal processing Image processing Speech processing systems Internal medicine Optics, Lasers, Photonics, Optical Devices Biomedical Engineering and Bioengineering Biological and Medical Physics, Biophysics Signal, Image and Speech Processing Internal Medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Non-contact Health Monitoring with LDV -- Chapter 2. Introduction to Laser Doppler Vibrometry -- Chapter 3. Data Acquisition and Processing -- Chapter 4. Parameters of Respiration -- Chapter 5. Vital Parameters of the Heart -- Chapter 6. VCG Signals on the Thorax and Detection of the PR-Interval -- Chapter 7. Distant Pulse Oximetry.
Sommario/riassunto	This book presents recent outcomes of the collaborative “Tricorder”

	project, which brings together partners from industry, research institutes and hospitals to deliver an easy contactless alternative for electrocardiograms (ECG). Featuring contributions investigating the possible applications of laser Doppler vibrometry (LDV) signals for the remote measurement of vital parameters of the heart, the book provides insights into the vision and the history of the "Tricorder" project and the basic differences between the vibrocardiograms and electrocardiograms. It also discusses topics such as signal processing, heartbeat measurement techniques, respiration frequency and oxygen saturation determination, with a particular focus on the diagnostic value of the method presented, e.g., diagnosis of atrial fibrillation and estimation of the oxygen saturation in premature infants. Further, the authors review the advantages and drawbacks of the new method and the specific fields of application. This book will appeal to researchers and industry leaders interested in laser remote sensing for medical applications as well as medical professionals curious about new healthcare technologies.

2.

Record Nr.	UNINA9910346673503321
Autore	Martins Cesar
Titolo	Evolution, Composition and Regulation of Supernumerary B Chromosomes
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019
ISBN	3-03897-787-X
Descrizione fisica	1 online resource (254 p.)
Soggetti	Biology, life sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Supernumerary B chromosomes (Bs) are dispensable genetic elements found in thousands of species of plants and animals, and some fungi. Since their discovery more than a century ago, they have been a source of puzzlement, as they only occur in some members of a population

and are absent from others. When they do occur, they are often harmful, and in the absence of "selfishness", based on mechanisms of mitotic and meiotic drive, there appears to be no obvious reason for their existence. Cytogeneticists have long wrestled with questions about the biological existence of these enigmatic elements, including their lack of any adaptive properties, apparent absence of functional genes, their origin, sequence organization, and co-evolution as nuclear parasites. Emerging new technologies are now enabling researchers to step up a gear, to look enthusiastically beyond the previous limits of the horizon, and to uncover the secrets of these "silent" chromosomes. This book provides a comprehensive guide to theoretical advancements in the field of B chromosome research in both animal and plant systems.