

1. Record Nr.	UNINA9910766895003321
Autore	Seeram Euclid
Titolo	X-Ray Imaging Systems for Biomedical Engineering Technology : An Essential Guide // by Euclid Seeram
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-46266-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (162 pages)
Disciplina	616.07572
Soggetti	Radiography, Medical Radiology Biophysics Nuclear medicine Radiation dosimetry Radiography Bioanalysis and Bioimaging Nuclear Medicine Radiation Dosimetry and Protection
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- X-Ray Imaging Systems: An Overview -- Radiation Physics at a Glance -- Computed Radiography Imaging: Principles and System Components -- Flat-Panel Digital Radiography: Principles and System Components -- Digital Fluoroscopy: System Components and Principles -- Digital Image Quality Descriptors and Performance Characteristics -- Computed Tomography: Basic Physics and Technology -- Imaging Informatics Essentials -- Artificial Intelligence in Medical Imaging: An Overview -- Quality Control in Diagnostic X-Ray Imaging Systems -- Radiation Protection in X-Ray Imaging -- Index. .
Sommario/riassunto	This book addresses X-Ray Imaging Systems intended for biomedical engineering technology students and practitioners, and deals with the major technical components of x-ray imaging modalities. These modalities include film-based imaging, digital radiography, and computed tomography. Furthermore, principles and concepts essential

to the understanding of how these modalities function will be described. These include fundamental radiation physics, imaging informatics, quality control, and radiation protection considerations. X-Ray Imaging Systems for Biomedical Engineering Technology: An Essential Guide is intended for biomedical engineering technologists, who provide technical advice and services relating to digital radiography and CT departments not only in hospitals but in private facilities as well. Students in radiological technology programs may also find this to be a useful resource.

---