1. Record Nr. UNINA9910818580403321

Titolo	Human eye imaging and modeling / / edited by E. Y. K. Ng, Jen Hong Tan, U. Rajendra Acharya and Jasjit S. Suri
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, an imprint of Taylor and Francis, , 2012
ISBN	0-429-10944-X 1-138-07165-X 1-4398-6993-6 1-4398-6994-4
Edizione	[First edition.]
Descrizione fisica	1 online resource (420 p.)
Disciplina	617.7/15
Soggetti	Eye - Diseases - Diagnosis Diagnostic imaging
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 at the end of each chapters.
Nota di contenuto	Front Cover; Contents; Preface; Contributors; Section I; Chapter 1: Automated Identification of Diabetes Retinopathy Using Artificial Intelligence Techniques; Chapter 2: VAMPIRE: Vessel Assessment and Measurement Platform for Images of the Retina; Chapter 3: Formal Design and Development of a Glaucoma Classification System; Chapter 4: Computer-Aided Assessment of Optic Nerve; Chapter 5: A Survey of Instruments for Eye Diagnostics with Special Emphasis on Glaucoma Detection; Chapter 6: Imaging Modalities and Medical Applications in the Ocular Surface Chapter 7: Current Research on Ocular Surface TemperatureChapter 8: Computer Methods in the Estimation of Tear Evaporation by Thermography; Chapter 9: Tear Film Thermal Image Characteristics Analysis in Temporal and Spatial Aspects; Section II; Chapter 10: Biomechanical Modeling of the Human Eye with a Focus on the Cornea; Chapter 11: Modeling Retinal Laser Surgery in Human Eye; Chapter 12: A Geometric Model of the 3D Human Eye and Its Optical Simulation; Chapter 13: Human Eye Heat Distribution Using 3D Web-Splines Solution; Chapter 14: Modeling of Human Eye Exposed to Laser Radiation

	Chapter 15: Computational Bioheat Modeling in Human Eye with Local Blood Perfusion EffectChapter 16: Modeling and Simulation of Bioheat Transfer in the Human Eye with Edge-Based Smoothed Finite Element Method (ES-FEM); Chapter 17: A Numerical Approach to Bioheat and Mass Transfer in the Human Eye
Sommario/riassunto	Advanced image processing and mathematical modeling techniques are increasingly being used for the early diagnosis of eye diseases. A comprehensive review of the field, Human Eye Imaging and Modeling details the latest advances and analytical techniques in ocular imaging and modeling.