

1. Record Nr.	UNINA9910777945103321
Autore	Hung George K
Titolo	Models of oculomotor control [[electronic resource] /] / George K. Hung
Pubbl/distr/stampa	River Edge, NJ, : World Scientific, c2001
ISBN	981-281-148-6 1-281-86955-4 9786611869557
Descrizione fisica	1 online resource (141 p.)
Disciplina	612.846
Soggetti	Eye - Movements - Mathematical models Control theory Biomedical engineering
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 (p. 113-123) and index.
Nota di contenuto	Acknowledgements; Preface; Contents; Introduction; Basic Anatomy and Physiology of Eye Movements; Basic Measurement Terms; Basic Control System Concepts; Eye Movement Measurement Techniques; Static Analysis Techniques; Accommodation System; Vergence System; Linear Analysis of Relationship Between AC and ACG; Nonlinear Analysis of AC/A Using the Phoria and Fixation Disparity Methods; Proximal Model; Sensitivity Analysis of Accommodation and Vergence Interactions; Dynamic Analysis Techniques; Main Sequence; Accommodation System - Root Locus Analysis; Vergence Dual-Mode Dynamic Model Accommodative Dual-Mode Dynamic Characteristics Adaptation Model of Accommodation and Vergence; Nearwork-Induced Transient Myopia (NITM) Model; Refractive Error Development Model; Saccade-Vergence Interactions Dynamic Model; Summary Remarks; References; Index
Sommario/riassunto	This monograph is a structured review of models of oculomotor control systems that is geared toward biomedical engineers, vision scientists, and optometry students. It aims to provide the biomedical engineer with a thorough understanding of how various engineering control principles are applied to oculomotor systems, and the non-engineer with knowledge of how various physiological and clinical concepts can be represented quantitatively and efficiently by control system models.

Basic control system concepts and oculomotor physiology are first introduced, along with a glossary, to provide backgro
