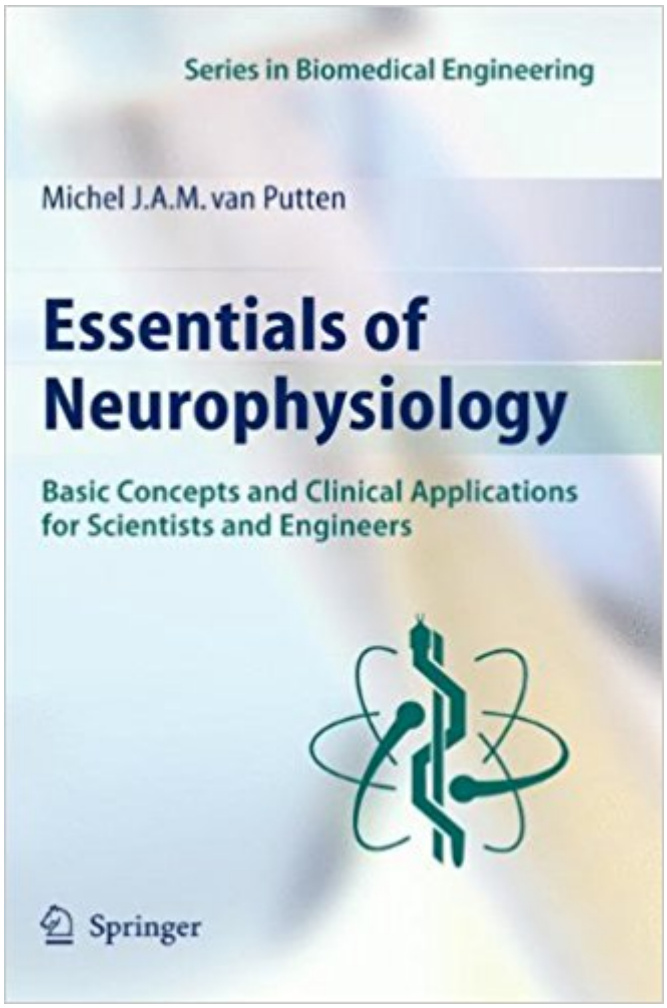
Essentials Of Neurophysiology: Basic Concepts And Clinical Applications For Scientists And Engineers (Series In Biomedical Engineering)



Synopsis

In this book, we approach neurophysiology at the interface of neurology and clinical neurophysiology. The medical disciplines of the nervous system, n- rology and clinical neurophysiology, rest heavily on other sciences, notably cellular biology, neuro-anatomy, neuro-physiology, applied physics and ma- ematical biology. Existing medical textbooks on neurophysiology, neurology and clinical neurophysiology are an excellent source of the phenomenology of various principles and diseases. Here, we choose to elucidate some of the under- ing physiological, physical processes and experimental methods, intended for a broad audience Ã¢â ¬â œ medical residents and students, as well as students in the emerging area of medical technical sciences. We feel that a good understanding of fundamentals may signi?cantly - hance insight into various aspects of clinical neurology and clinical neu- physiology. This book, therefore, is focused on a selection of clinical signs and symptoms to highlight basic principles of neurology, (neuro-)physiology and neuroanatomy. While we believe this text to be of interest to medical students or residents in neurology or clinical neurophysiology, we speci?cally aim at students - terested in contributing to new developments and innovations in neurology and clinical neurophysiology. These students are involved with patients, even though they are not trained for routine patient care.

Book Information

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Customer Reviews

These lectures provide the basic understanding of various clinical signs and symptoms from a thorough insight into basic principles of neurology, neurophysiology and neuroanatomy. The primary audience is therefore students whose future work will be in these fields and in particular thoseÃ Â who will becomeÃ Â typical clinical medical specialists driving the technological evolution. Essentials of neurophysiology therefore presents a hybrid of information, both from the clinical field and from basic physiology, with a very strong emphasis on concepts, including mathematical descriptions if felt necessary for a thorough understanding, but with less emphasis on various diseases. However, prototype examples of neurological diseases are discussed. In this respect, more technically and/or research minded medical students, residents, neurologists and clinical neurophysiologists, will also find this text useful. The topics covered range from basic neuroanatomy to physiology, from membrane potentials to interneuronal communication. In addition, the author explains how various measurements on the human nervous system can be performed, including a treatise on medical measurements in general.

This textbook reviews the basics and application of neurophysiology for anyone interested in this interdisciplinary field. The text provides clear explanation of difficult aspects and includes relevant references plus questions to test the reader’s understanding of the topic. I strongly recommend it.

Basic Engineering Series and Tools) Manter and Gatz’s Essentials of Clinical Neuroanatomy and Neurophysiology, 10th Edition Manter’s Essentials of Clinical Neuroanatomy and Neurophysiology Essentials Of Clinical Neuroanatomy And Neurophysiology Manter & Gatz’s Essentials of Clinical Neuroanatomy and Neurophysiology by Sid Gilman (1996-05-01) Foundations of Biomedical Ultrasound (Biomedical Engineering Series) Advice to Rocket Scientists: A Career Survival Guide for Scientists and Engineers (Library of Flight) Basic Transport Phenomena In Biomedical Engineering (Chemical Engineering) Introduction to C++ for Engineers and Scientists (Prentice Hall Modular Series for Engineering)