

Springer

1st
edition

1st ed. 2019, XVI, 609 p.

Printed book

Hardcover

Printed book

Hardcover

ISBN 978-3-319-74916-7

£ 109,99 | CHF 153,50 | 129,99 € |
142,99 € (A) | 139,09 € (D)

Available

Sale price valid through February 28,
2021£ 56,99 | CHF 77,00 | 64,99 € |
71,49 € (A) | 69,54 € (D)**Discount group**

Science (SC)

Product category

Monograph

SeriesBiological and Medical Physics, Biomedical
Engineering**Other renditions**

Softcover

ISBN 978-3-319-74918-1

Physics : Biological and Medical Physics, Biophysics

Kaniusas, Eugenijus

Biomedical Signals and Sensors III

Linking Electric Biosignals and Biomedical Sensors

- Offers a unique perspective on electric biosignals from their origin, to propagation and recording, and not limited to a certain application or specific use
- Written by the leading expert in the area of auricular vagus nerve stimulation
- Complements the books *Biomedical Signals and Sensors I and II* from biophysics (vol. I), to acoustic biosignals, to optic biosignals (vol. II), and finally to electric biosignals (vol. III)

As the third volume in the author's series on "Biomedical Signals and Sensors," this book explains in a highly instructive way how electric, magnetic and electromagnetic fields propagate and interact with biological tissues. The series provides a bridge between physiological mechanisms and theranostic human engineering. The first volume focuses on the interface between physiological mechanisms and the resultant biosignals that are commonplace in clinical practice. The physiologic mechanisms determining biosignals are described from the cellular level up to the mutual coordination at the organ level. In turn, the second volume considers the genesis of acoustic and optic biosignals and the associated sensing technology from a strategic point of view. This third volume addresses the interface between electric biosignals and biomedical sensors. Electric biosignals are considered, starting with the biosignal formation path to biosignal propagation in the body and finally to the biosignal sensing path and the recording of the signal. The series also emphasizes the common features of acoustic, optic and electric biosignals, which are ostensibly entirely different in terms of their physical nature. Readers will learn how these electric, magnetic and electromagnetic fields propagate and interact with biological tissues, are influenced by inhomogeneity effects, cause neuromuscular stimulation and thermal effects, and finally pass the electrode/tissue boundary to be recorded.

Order online at [springer.com/booksellers](https://www.springer.com/booksellers)

Springer Nature Customer Service Center GmbH

Customer Service

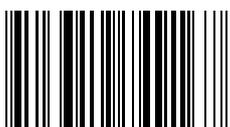
Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com



ISBN 978-3-319-74916-7 / BIC: PHVN / SPRINGER NATURE: SCP27008

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**