DESCRIPTION

Brimming with top articles from experts in signal processing and biomedical engineering, *Time Frequency and Wavelets in Biomedical Signal Processing* introduces time-frequency, time-scale, wavelet transform methods, and their applications in biomedical signal processing. This edited volume incorporates the most recent developments in the field to illustrate thoroughly how the use of these time-frequency methods is currently improving the quality of medical diagnosis, including technologies for assessing pulmonary and respiratory conditions, EEGs, hearing aids, MRIs, mammograms, X rays, evoked potential signals analysis, neural networks applications, among other topics.

*Time Frequency and Wavelets in Biomedical Signal Processing* will be of particular interest to signal processing engineers, biomedical engineers, and medical researchers.

Topics covered include:

- Time-frequency analysis methods and biomedical applications
- Wavelets, wavelet packets, and matching pursuits and biomedical applications
- Wavelets and medical imaging
- Wavelets, neural networks, and fractals
ABOUT THE AUTHOR

Metin Akay is IEEE Press Series Editor for the IEEE Press Series in Biomedical Engineering, and a member of the IEEE Engineering in Medicine and Biology Society Publication Committee. Dr. Akay has authored Biomedical Signal Processing (Academic Press, 1994); Detection and Estimation of Biomedical Signals (Academic Press, 1996); and coauthored the most recent edition of Theory and Design of Biomedical Instruments (Academic Press, 1991). He has published a number of technical papers in the areas of noninvasive detection of coronary artery disease, early human development, and control of breathing. In addition, Dr. Akay holds two U.S. patents and has given several keynote/plenary and invited talks at international conferences, workshops, and symposiums in these areas.

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