



sensors



Special Issue Reprint

Computer Aided Diagnosis Sensors

www.mdpi.com/books/reprint/8310

Edited by

Ayman El-Baz

Guruprasad A. Giridharan

Ahmed Shalaby

Ali H. Mahmoud

Mohammed Ghazal



ISBN 978-3-0365-9532-0 (Hardback)

ISBN 978-3-0365-9533-7 (PDF)

Sensors used to diagnose, monitor or treat diseases in the medical domain are known as medical sensors. There are several types of medical sensors that can be utilized for various applications, such as temperature probes, force sensors, pressure sensors, oximeters, electrocardiogram sensors that measure the electrical activity of the heart, heart rate sensors, electroencephalogram sensors that measure the electrical activity of the brain, electromyogram sensors that record electrical activity produced by skeletal muscles, and respiration rate sensors that count how many times the chest rises in a minute. The output of these sensors used to be interpreted by humans, which was time consuming and tedious; however, such interpretations became easy with advances in artificial intelligence (AI) techniques and the integration of the sensor outputs into computer-aided diagnostic (CAD) systems. This reprint presents some of the state-of-the-art AI approaches that are used to diagnose different diseases and disorders based on the data collected from different medical sensors. The ultimate goal is to develop comprehensive and automated computer-aided diagnosis by focusing on the different machine learning algorithms that can be used for this purpose as well as novel applications in the medical field.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/8310

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.