DESCRIPTION

The book introduces flexible and stretchable wearable electronic systems and covers in detail the technologies and materials required for healthcare and medical applications. A team of excellent authors gives an overview of currently available flexible devices and thoroughly describes their physical mechanisms that enable sensing human conditions.

In dedicated chapters, crucial components needed to realize flexible and wearable devices are discussed which include transistors and sensors and deal with memory, data handling and display. Additionally, suitable power sources based on photovoltaics, thermoelectric energy and supercapacitors are reviewed. A special chapter treats implantable flexible sensors for neural recording.

The book editor concludes with a perspective on this rapidly developing field which is expected to have a great impact on healthcare in the 21st century.

ABOUT THE AUTHOR

Kuniharu Takei is an Associate Professor at Osaka Prefecture University in Japan. His work focuses on the integration of multi-sensor networks and circuits on macro-scale flexible sheets for various technological applications. He has published over 90 scientific papers and has received several scientific awards, including the 35 Innovators Under 35 award (MIT Technology Review)
in 2013, NISTEP Researcher 2015 (MEXT, Japan), and Netexplorateur of the Year Award in 2011. He serves as an editorial board member of ‘Scientific Reports’ and as an Associate Editor of ‘Nanoscale Research Letters’.

To purchase this product, please visit https://www.wiley.com/en-us/9783527341832