



Special Issue Reprint

The 3rd International Conference on the Challenges, Opportunities, Innovations and Applications in Electronic Textiles

www.mdpi.com/books/reprint/6294

Edited by Steve Beeby Kai Yang Russel Torah

ISBN 978-3-0365-5475-4 (Hardback) ISBN 978-3-0365-5476-1 (PDF)



This reprint is a collection of papers from the E-Textiles 2021 Conference and represents the state-of-the-art from both academia and industry in the development of smart fabrics that incorporate electronic and sensing functionality. The reprint presents a wide range of applications of the technology including wearable textile devices for healthcare applications such as respiratory monitoring and functional electrical stimulation. Manufacturing approaches include printed smart materials, knitted e-textiles and flexible electronic circuit assembly within fabrics and garments. E-textile sustainability, a key future requirement for the technology, is also considered. Supplying power is a constant challenge for all wireless wearable technologies and the collection includes papers on triboelectric energy harvesting and textile-based water-activated batteries. Finally, the application of textiles antennas in both sensing and 5G wireless communications is demonstrated, where different antenna designs and their response to stimuli are presented.





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.

MDPI AG St. Alban-Anlage 66 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

