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Nota di contenuto	About the Editors Preface to "E-Textiles 2021: 3rd International Conference on the Challenges, Opportunities, Innovations and Applications in Electronic Textiles" Statement of Peer Review E-Textile Haptic Feedback Gloves for Virtual and Augmented Reality Applications Finite-Element Analysis of the Mechanical Stresses on the Core Structure of Electronically Functional Yarns Development of Smart Kneecap with Electrical Stimulation Sensing of Body Movement by Stretchable Triboelectric Embroidery Aimed at Healthcare and Sports Activity Monitoring Knitted Graphene Supercapacitor and Pressure-Sensing Fabric Ambulatory Monitoring Using Knitted 3D Helical Coils Respiratory Inductive Plethysmography System for Knitted Helical Coils Textile Tactile Sensor Based on Ferroelectret for Gesture Recognition E-Textile Breathing Sensor Using Fully Textile Wearable Antennas Assessing the Validity of a Kinematic Knee Sleeve in a Resistance-Trained Population Design of Textile Antenna for Moisture Sensing Image Detection and Responsivity Analysis of Embroidered Fabric Markers Using Augmented Reality Technology 5G-Enabled E-Textiles Based on a Low-Profile Millimeter-Wave Textile Antenna Can Design for Disassembly Principles Inform Policy for E-Textiles Waste? Green Synthesised Silver Nanocomposite for Thermoregulating E-Textiles An All Dispenser Printed Electrode Structure on Textile for Wearable Healthcare Investigating the Mechanical Failures at the Bonded Joints of Screen-Printed E-Textile Circuits Optimization of Knitted Structures for

E-Textiles Applications Textile Manufacturing Compatible Triboelectric Nanogenerator with Alternating Positive and Negative Woven Structure Flexible Water-Activated Battery on a Polyester-Cotton Textile Solution-Processed Organic Light-Emitting Electrochemical Cells (OLECs) with Blue Colour Emission via Silver-Nanowires (AgNWs) as Cathode Functioning E-Textile Sensors for Car Infotainment Applications.

Sommario/riassunto

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.
