

1. Record Nr.	UNINA9910720081103321
Titolo	Applications in Electronics Pervading Industry, Environment and Society : APPLEPIES 2022 // edited by Riccardo Berta, Alessandro De Gloria
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	9783031303333 9783031303326
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (394 pages)
Collana	Lecture Notes in Electrical Engineering, , 1876-1119 ; ; 1036
Disciplina	621.381
Soggetti	Electronic circuits Engineering - Data processing Biomedical engineering Electronic Circuits and Systems Data Engineering Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Soluble mandrel technology to produce parts in composite material for Formula 1 -- A Reconfigurable 2D-Convolution Accelerator for DNNs Quantized with Mixed-Precision -- AI-based Sound Event Detection on IoT nodes: Requirements Evaluation -- Diagnostic analytics for pixelated particle detectors: A case study -- Developing a Toolchain for Synthetic Driving Scenario Datasets -- Affordance segmentation using RGB-D sensors for application in portable embedded systems -- Design and Implementation on FPGA of a HW Accelerator for Post-Quantum RLWE Polynomial Operations -- Ticketing Systems for Smart Public Transportation: Tools at the User Side -- Debris Detection and Tracking through On-board LiDAR -- A Novel Front-End Circuit for the Digital Conversion of QCM-D Responses for FPGA-based Frequency Measurements.
Sommario/riassunto	This book provides a thorough overview of cutting-edge research on electronics applications relevant to industry, the environment, and society at large. It covers a broad spectrum of application domains, from automotive to space and from health to security, while devoting

special attention to the use of embedded devices and sensors for imaging, communication and control. The book is based on the 2022 ApplePies Conference, held in Genoa, Italy in September 2022, which brought together researchers and stakeholders to consider the most significant current trends in the field of applied electronics and to debate visions for the future. Areas addressed by the conference included information communication technology; biotechnology and biomedical imaging; space; secure, clean and efficient energy; the environment; and smart, green and integrated transport. As electronics technology continues to develop apace, constantly meeting previously unthinkable targets, further attention needs to be directed toward the electronics applications and the development of systems that facilitate human activities. This book, written by industrial and academic professionals, represents a valuable contribution in this endeavor.
