Record Nr. UNINA9910800116803321 Applications in Electronics Pervading Industry, Environment and Society **Titolo** : Applepies 2023 / / Francesco Bellotti [and six others], editors Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2024] ©2024 **ISBN** 3-031-48121-6 Edizione [First edition.] Descrizione fisica 1 online resource (523 pages) Lecture Notes in Electrical Engineering Series; Volume 1110 Collana Disciplina 006.3 Artificial intelligence Soggetti Biomedical engineering Electrical engineering Electronics Internet of things Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Alessandro De Gloria, a Pioneer in Electronic Engineering Applications Nota di contenuto -- Heterogeneous Tightly-Coupled Dual Core architecture against SEE -- Wire Bonding: Limitations and Opportunities for High-Speed Serial Communications -- Low-latency Open-source Kyber-accelerator Ips --A Universal Hardware Emulator for Verification IPs on FPGA: A Novel and Low-Cost Approach -- Single Event Transient Reliability Analysis on a Fault-Tolerant RISC-V Microprocessor Design -- Communications by High-efficient AES-CMAC Core in Space-Grade FPGA -- On the Usage of Isomorphic Fields in Hardware AES Modules for Optimizing the Efficiency -- Speeding up Non-Archimedean Numerical Computations using AVX-512 SIMD Instructions -- A 0.94V Dynamic Bias Double Tail Comparator for high-speed applications in 5nm technology. 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 2023 ApplePies Conference, held in Genoa, Italy, in September 2023, 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.