

1. Record Nr.	UNINA9910678247303321
Titolo	Experience of PYNQ : tutorials for PYNQ-Z2 // Songlin Sun [and three others], editors
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore Pte Ltd., , [2023] ©2023
ISBN	981-19-9072-7
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (84 pages)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-5318
Disciplina	005.365
Soggetti	Application software Computer software - Development Python (Computer program language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	PYNQ Introduction -- PYNQ HelloWorld: Image Resizing -- Digital Signal Processing Experiment on PYNQ -- Basic Communication Experiment on PYNQ -- Neural Network Experiment on PYNQ.
Sommario/riassunto	This book introduces PYNQ, a Python-based framework from Xilinx® that makes it easier for users to build electronic systems on Xilinx platforms. The book covers the architecture of PYNQ, the design tools and methods, software and hardware design approach, as well as rich experiment cases on communications, multimedia, and deep learning. This book serves as a useful guide for those getting starting with, or working with PYNQ and enables the learners to have a thorough understanding of the hardware/software co-design approaches in the area of the communication, multimedia, and other information system components. This book is organized based on the teaching materials of “hardware comprehensive experiments” which is an experimental course in BUPT, for both undergraduate and graduate students, and domestic and international students. This course has more than ten years of teaching experience and has taught hundreds of students.