1. Record Nr.	UNINA9910818619503321
Titolo	Reconfigurable computing : the theory and practice of FPGA-based computation / / edited by Scott Hauck and Andre DeHon
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Morgan Kaufmann, c2008
ISBN	1-281-09615-6
	9786611096151
	0-08-055601-9
Edizione	[1st edition]
Descrizione fisica	1 online resource (945 p.)
Collana	The Morgan Kaufmann series in systems on silicon
Altri autori (Persone)	HauckScott
	DeHonAndre
Disciplina	621.39/5
	621.395
Soggetti	Adaptive computing systems
	Field programmable gate arrays
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Reconfigurable Computing; Copyright Page; Table of Contents; List of Contributors; Preface; Introduction; Part I: Reconfigurable Computing Hardware; Chapter 1. Device Architecture; 1.1 Logic-The Computational Fabric; 1.2 The Array and Interconnect; 1.3 Extending Logic; 1.4 Configuration; 1.5 Case Studies; 1.6 Summary; References; Chapter 2. Reconfigurable Computing Architectures; 2.1 Reconfigurable Processing Fabric Architectures; 2.2 RPF Integration into Traditional Computing Systems; 2.3 Summary and Future Work; References; Chapter 3. Reconfigurable Computing Systems 3.1 Early Systems3.2 PAM, VCC, and Splash; 3.3 Small-Scale Reconfigurable Systems; 3.4 Circuit Emulation; 3.5 Accelerating Technology; 3.6 Reconfigurable Supercomputing; 3.7 Non-FPGA Research; 3.8 Other System Issues; 3.9 The Future of Reconfigurable Systems; References; Chapter 4. Reconfiguration Management; 4.1 Reconfiguration; 4.2 Configuration Architectures; 4.3 Managing the Reconfiguration Process; 4.4 Reducing Configuration Transfer Time; 4.5 Configuration Security; 4.6 Summary; References; Part II: Programming Reconfigurable Systems; Chapter 5. Compute Models and

System Architectures

| Sommario/riassunto | Reconfigurable Computing marks a revolutionary and hot topic that bridges the gap between the separate worlds of hardware and software design- the key feature of reconfigurable computing is its groundbreaking ability to perform computations in hardware to increase performance while retaining the flexibility of a software solution. Reconfigurable computers serve as affordable, fast, and accurate tools for developing designs ranging from single chip architectures to multi-chip and embedded systems. Scott Hauck and Andre DeHon have assembled a group of the key experts in the fields |