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Titolo	PLD Based Design with VHDL : RTL Design, Synthesis and Implementation // by Vaibbhav Taraate
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ISBN	981-10-3296-3
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXI, 423 p. 246 illus.)
Disciplina	621.3815
Soggetti	Electronic circuits Electronics Microelectronics Microprogramming Circuits and Systems Electronics and Microelectronics, Instrumentation Control Structures and Microprogramming
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction to HDL -- Basic Logic Circuits and VHDL Description -- VHDL and Key Important Constructs -- 4 Combinational Logic Design Using VHDL Constructs -- Sequential Logic Design -- Introduction to PLD -- Design and simulation using VHDL constructs -- PLD Based Design Guidelines -- Finite State Machines -- Synthesis Optimization using VHDL -- Design Implementation Using Xilinx Vivado.
Sommario/riassunto	This book covers basic fundamentals of logic design and advanced RTL design concepts using VHDL. The book is organized to describe both simple and complex RTL design scenarios using VHDL. It gives practical information on the issues in ASIC prototyping using FPGAs, design challenges and how to overcome practical issues and concerns. It describes how to write an efficient RTL code using VHDL and how to improve the design performance. The design guidelines by using VHDL are also explained with the practical examples in this book. The book also covers the ALTERA and XILINX FPGA architecture and the design flow for the PLDs. The contents of this book will be useful to students, researchers, and professionals working in hardware design and

optimization. The book can also be used as a text for graduate and professional development courses.

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