1.	Record Nr.	UNINA9911019814503321
	Autore	Lala Parag K. <1948->
	Titolo	Principles of modern digital design / / Parag K. Lala
	Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2007
	ISBN	9786611002169
		9781281002167
		128100216X
		9780470125212
		0470125217
		9780470125205
		0470125209
	Descrizione fisica	1 online resource (437 p.)
	Disciplina	621.39/5
	Soggetti	Logic design
		Logic circuits - Design and construction
		Digital electronics
	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	PRINCIPLES OF MODERN DIGITAL DESIGN; CONTENTS; Preface; 1 Number Systems and Binary Codes; 1.1 Introduction; 1.2 Decimal Numbers; 1.3 Binary Numbers; 1.3.1 Basic Binary Arithmetic; 1.4 Octal Numbers; 1.5 Hexadecimal Numbers; 1.6 Signed Numbers; 1.6.1 Diminished Radix Complement; 1.6.2 Radix Complement; 1.7 Floating-Point Numbers; 1.8 Binary Encoding; 1.8.1 Weighted Codes; 1.8.2 Nonweighted Codes; Exercises; 2 Fundamental Concepts of Digital Logic; 2.1 Introduction; 2.2 Sets; 2.3 Relations; 2.4 Partitions; 2.5 Graphs; 2.6 Boolean Algebra; 2.7 Boolean Functions 2.8 Derivation and Classification of Boolean Functions2.9 Canonical Forms of Boolean Functions; 2.10 Logic Gates; Exercises; 3 Combinational Logic Design; 3.1 Introduction; 3.2 Minimization of Boolean Expressions; 3.3 Karnaugh Maps; 3.3.1 Don't Care Conditions; 3.3.2 The Complementary Approach; 3.4 Quine-MCCluskey Method; 3.4.1 Simplification of Boolean Function with Don't Cares; 3.5 Cubical

Sommario/riassunto	A major objective of this book is to fill the gap between traditional logic design principles and logic design/optimization techniques used in practice. Over the last two decades several techniques for computer-aided design and optimization of logic circuits have been developed. However, underlying theories of these techniques are inadequately covered or not covered at all in undergraduate text books. This book covers not only the ""classical"" material found in current text books but also selected materials that modern logic designers need to be familiar with.