

1. Record Nr.	UNINA9910136621103321
Autore	Mohan P.V. Ananda
Titolo	Residue Number Systems : Theory and Applications // by P.V. Ananda Mohan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2016
ISBN	9783319413853
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (353 p.)
Disciplina	510
Soggetti	Information theory Computer mathematics Electronic circuits Signal processing Image processing Speech processing systems Computer organization Information and Communication, Circuits Computational Science and Engineering Circuits and Systems Signal, Image and Speech Processing Computer Systems Organization and Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Modulo Addition/Subtraction -- Binary to Residue Conversion -- Modulo Multiplication -- Residue to Binary Conversion -- Scaling, Base Extension, MAgnitude Comparison, and Sign Detection -- Applications -- RNS in Cryptography.
Sommario/riassunto	This new and expanded monograph improves upon Mohan's earlier book, Residue Number Systems (Springer, 2002) with a state of the art treatment of the subject. Replete with detailed illustrations and helpful examples, this book covers a host of cutting edge topics such as the core function, the quotient function, new Chinese Remainder theorems, and large integer operations. It also features many significant

applications to practical communication systems and cryptography such as FIR filters and elliptic curve cryptography. Starting with a comprehensive introduction to the basics and leading up to current research trends that are not yet widely distributed in other publications, this book will be of interest to both researchers and students alike.
