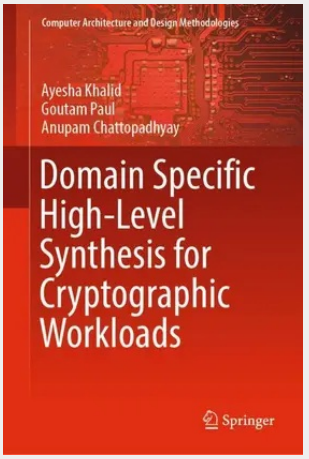
Khalid / Paul / Chattopadhyay

Domain Specific High-Level Synthesis for Cryptographic Workloads



This book offers an in-depth study of the design and challenges addressed by a high-level synthesis tool targeting a specific class of cryptographic kernels, i.e. symmetric key cryptography. With the aid of detailed case studies, it also discusses optimization strategies that cannot be automatically undertaken by CRYKET (Cryptographic kernels toolkit. The dynamic nature of cryptography, where newer cryptographic functions and attacks frequently surface, means that such a tool can help cryptographers expedite the very large scale integration (VLSI) design cycle by rapidly exploring various design alternatives before reaching an optimal design option. Features include flexibility in cryptographic processors to support emerging cryptanalytic schemes; area-efficient multinational designs supporting various cryptographic functions; and design scalability on modern graphics processing units (GPUs). These case studies serve as a guide to cryptographers exploring the design of efficient cryptographic implementations.

Includes case studies that illustrate step-by-step undertaking of cryptographic functions for mapping using the cryptographic kernels toolkit (CRYKET)Enables cryptographers working with any class of symmetric key cryptography to achieve area efficiency and throughput maximization over a wide range of platformsFeatures the state-of-the-art cryptographic functions including eSTREAM (for stream ciphers), AES/PRESENT (ISO standards for traditional and lightweight ciphers), and SHA-3 finalists (for hash functions)

106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9789811010699
Medium: Buch
ISBN: 978-981-10-1069-9
Verlag: Springer
Erscheinungstermin: 10.04.2019
Sprache(n): Englisch
Auflage: 1. Auflage 2019
Serie: Computer Architecture and Design Methodologies
Produktform: Gebunden
Gewicht: 559 g
Seiten: 237
Format (B x H): 160 x 241 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)