Record Nr. UNINA9910741160803321 Autore Chakravarthi Veena S. **Titolo** System on Chip (SOC) Architecture [[electronic resource]]: A Practical Approach / / by Veena S. Chakravarthi, Shivananda R. Koteshwar Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 3-031-36242-X Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (174 pages) 605 Disciplina Soggetti Electrical engineering Embedded computer systems Electronic circuits Electronic circuit design **Electronics Electrical and Electronic Engineering Embedded Systems** Electronic Circuits and Systems **Electronics Design and Verification** Electronics and Microelectronics, Instrumentation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto SoC Abstractions and Technology -- SoC Types and Its Constituents --System Modelling and Chip Architecture -- Embedded Processors --SOC Memory -- SOC Design Flow -- Advanced SOC Architectures --System Verification -- Self-Assessment Question Bank. Sommario/riassunto This book deals with a practical approach to defining a system on a chip (SoC) architecture. It is written by practicing industry experts with cumulative five decades of hands-on experience. The book discusses how the system-level design challenges are addressed at the architecture stage and clearly defines different SoC subsystems and components. The book explains the practical method of determining

system subsystems in system architectures. System on Chip (SOC) Architecture: A Practical Approach provides readers with a complete understanding of methods for defining SoC architecture. Provides the

most up-to-date information on current SOCs and architectural insights for the design of future semiconductor systems; Explores concepts such as parallelism, pipelining, data-driven or instruction-driven, and event-driven systems and their respective tradeoffs in SOC architectures; Provides a practical approach to defining SOC architecture with real case studies.