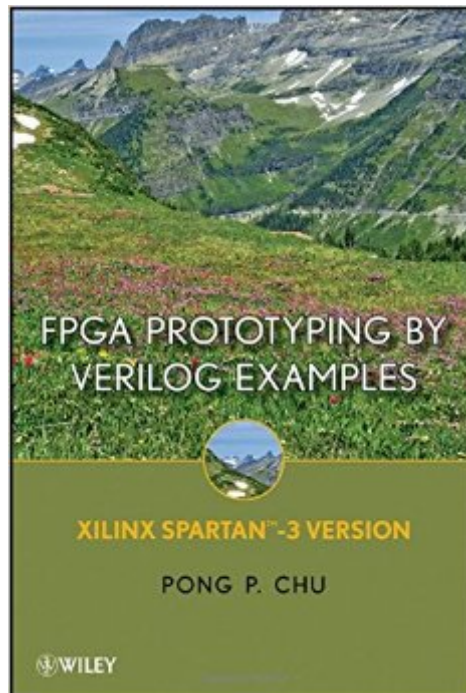# FPGA Prototyping By Verilog Examples: Xilinx Spartan-3 Version

Synopsis

FPGA Prototyping Using Verilog Examples will provide you with a hands-on introduction to Verilog synthesis and FPGA programming through a â œlearn by doingâ • approach. By following the clear, easy-to-understand templates for code development and the numerous practical examples, you can quickly develop and simulate a sophisticated digital circuit, realize it on a prototyping device, and verify the operation of its physical implementation. This introductory text that will provide you with a solid foundation, instill confidence with rigorous examples for complex systems and prepare you for future development tasks.

Book Information

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Customer Reviews

This is perhaps the best introductory Verilog book. It introduces the digital system design methodology and demonstrates the key language concepts and constructs via a series of practical examples, all of them can be physically implemented and tested in an inexpensive Xilinx FPGA board.There are three parts:-Part 1 introduces key Verilog language constructs, and systematically shows how to construct combinational circuit, sequential circuit, FSM, and FSMD (FSM with data path) by these constructs.-Part 2 utilizes the methodologies and techniques of part 1 to design interface and control circuits for an array of I/O modules of the prototyping board, including UART, keyboard, mouse, SRAM, graphic VGA, and textual VGA.-Part 3 introduces PicoBlaze (an 8-bit soft-core micro-controller) and demonstrates how to integrate a processor to an FPGA design and

develop customized I/O.Pros:-It utilizes a hands-on approach to introduce Verilog and design methodology.-It introduces Verilog from hardware's point of view (rather than C's point of view) and emphasizes the key concepts behind HDL.-The design methodology and coding practice used the in the book are sound and can be applied to larger system.-It contains an advanced chapter that clarifies several confusing Verilog constructs, such as blocking/non-blocking assignments and signed data type.-It contains a chapter on soft-core micro-controller and shows the integration of general-purpose processor and customized circuit.Cons (actually caveats):-The book is more towards applying Verilog for digital system design rather than the Verilog language. It only covers key Verilog language constructs. You may need another book to learn the complete "language.

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