

# In Praise of *Digital Design and Computer Architecture*

*Harris and Harris have taken the popular pedagogy from Computer Organization and Design to the next level of refinement, showing in detail how to build a MIPS microprocessor in both SystemVerilog and VHDL. With the exciting opportunity that students have to run large digital designs on modern FGPAs, the approach the authors take in this book is both informative and enlightening.*

**David A. Patterson** University of California, Berkeley

*Digital Design and Computer Architecture brings a fresh perspective to an old discipline. Many textbooks tend to resemble overgrown shrubs, but Harris and Harris have managed to prune away the deadwood while preserving the fundamentals and presenting them in a contemporary context. In doing so, they offer a text that will benefit students interested in designing solutions for tomorrow's challenges.*

**Jim Frenzel** University of Idaho

*Harris and Harris have a pleasant and informative writing style. Their treatment of the material is at a good level for introducing students to computer engineering with plenty of helpful diagrams. Combinational circuits, microarchitecture, and memory systems are handled particularly well.*

**James Pinter-Lucke** Claremont McKenna College

*Harris and Harris have written a book that is very clear and easy to understand. The exercises are well-designed and the real-world examples are a nice touch. The lengthy and confusing explanations often found in similar textbooks are not seen here. It's obvious that the authors have devoted a great deal of time and effort to create an accessible text. I strongly recommend Digital Design and Computer Architecture.*

**Peiyi Zhao** Chapman University

*Harris and Harris have created the first book that successfully combines digital system design with computer architecture. Digital Design and Computer Architecture is a much-welcomed text that extensively explores digital systems designs and explains the MIPS architecture in fantastic detail. I highly recommend this book.*

**James E. Stine, Jr.,** Oklahoma State University

*Digital Design and Computer Architecture is a brilliant book. Harris and Harris seamlessly tie together all the important elements in microprocessor design—transistors, circuits, logic gates, finite state machines, memories, arithmetic units—and conclude with computer architecture. This text is an excellent guide for understanding how complex systems can be flawlessly designed.*

**Jaeha Kim** Rambus, Inc.

*Digital Design and Computer Architecture is a very well-written book that will appeal to both young engineers who are learning these subjects for the first time and also to the experienced engineers who want to use this book as a reference. I highly recommend it.*

**A. Utku Diril** Nvidia Corporation