Embedded Systems and Software Validation (Hardback)

By Abhik Roychoudhury

ELSEVIER SCIENCE TECHNOLOGY, United States, 2009. Hardback. Book Condition: New. 236 x 192 mm. Language: English . Brand New Book. Modern embedded systems require high performance, low cost and low power consumption. Such systems typically consist of a heterogeneous collection of processors, specialized memory subsystems, and partially programmable or fixed-function components. This heterogeneity, coupled with issues such as hardware/software partitioning, mapping, scheduling, etc., leads to a large number of design possibilities, making performance debugging and validation of such systems a difficult problem. Embedded systems are used to control safety critical applications such as flight control, automotive electronics and healthcare monitoring. Clearly, developing reliable software/systems for such applications is of utmost importance. This book describes a host of debugging and verification methods which can help to achieve this goal. It covers the major abstraction levels of embedded systems design, starting from software analysis and micro-architectural modeling, to modeling of resource sharing and communication at the system level. This book: integrates formal techniques of validation for hardware/software with debugging and validation of embedded system design flows; and, includes practical case studies to answer the questions: does a design meet its requirements, if not, then which parts of the system are responsible for...

READ ONLINE
[3.95 MB]

Reviews

A whole new electronic book with an all new perspective. It is one of the most incredible book we have read. Your way of life span will likely be convert when you comprehensive reading this article book.
-- Spencer Fay

Complete guide! Its such a great study. I am quite late in start reading this one, but better then never. It is extremely difficult to leave it before concluding, once you begin to read the book.
-- Dr. Hermann Marvin PhD