Computers as Components: Principles of Embedded Computing System Design, 3e, presents essential knowledge on embedded systems technology and techniques. Updated for today's embedded systems design methods, this edition features new examples including digital signal processing, multimedia, and cyber-physical systems. Author Marilyn Wolf covers the latest processors from Texas Instruments, ARM, and Microchip Technology plus software, operating systems, networks, consumer devices, and more. Like the previous editions, this textbook: Uses real processors to demonstrate both technology and techniquesShows readers how to apply principles to actual design practiceStresses necessary fundamentals that can be applied to evolving technologies and helps readers gain facility to design large, complex embedded systems. Updates in this edition include: Description of cyber-physical systems: physical systems with integrated computation to give new capabilitiesExploration of the PIC and TI OMAP processorsHigh-level representations of systems using signal flow graphsEnhanced material on interprocess communication and buffering in operating systemsDesign examples include an audio player, digital camera, cell phone, and moreDescription of cyber-physical systems: physical systems with integrated computation to give new capabilitiesExploration of the PIC and TI OMAP multiprocessorsHigh-level representations of systems using signal flow graphsEnhanced material on interprocess communication and buffering in operating systemsDesign examples include an audio player, digital camera, cell phone, and more

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Easy to enjoy, chapter 2 instructions sets, chapter 3 CPU and chapter 4 bus-based computer system covers basics of hw. the figures/diagrams are distinguishably simple and illustrative in making good point, chapter 6 focus on OS, overall the book covers a wide range of subjects from CPU to design and performance without being too academic, seemingly to have particular strength on BUS and video related topics, many of the example code using ARM instructions.

This book is a comprehensive one with full usefulness and practical technical details and applications. Nice and good work and Thanks!

I bought this for Microprocessors class. Great source of knowledge.

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