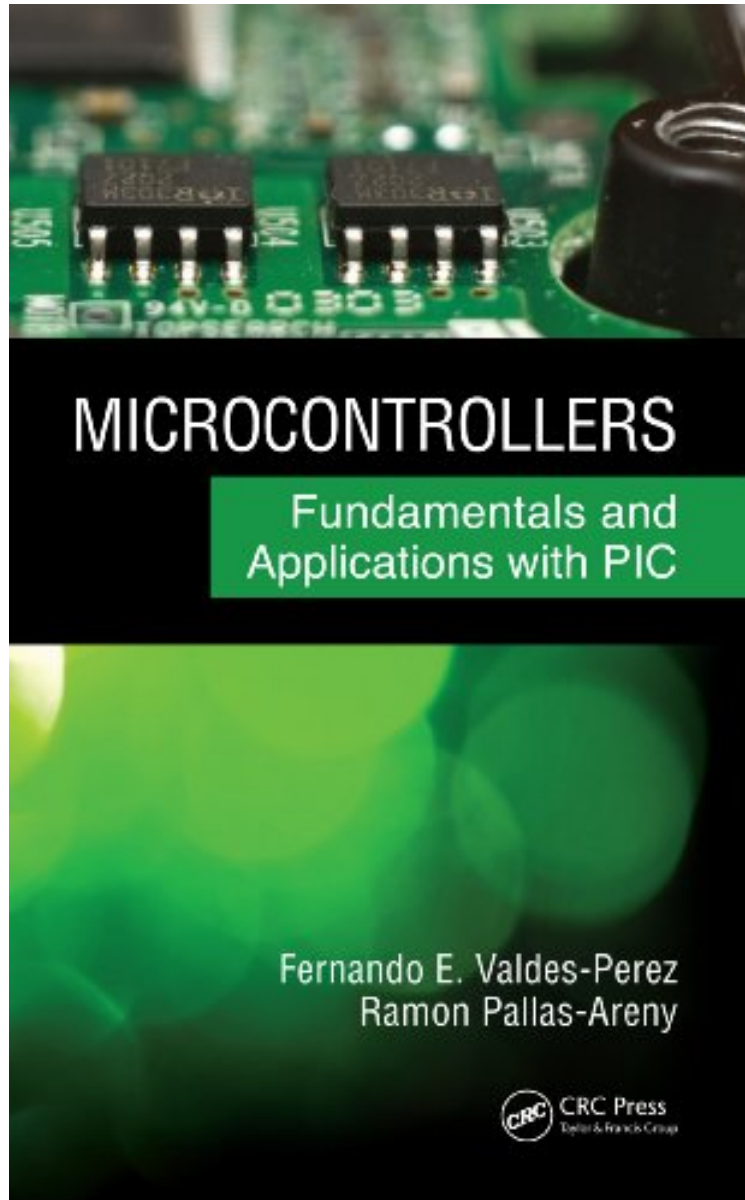


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Microcontrollers: Fundamentals and Applications with PIC

Von *Fernando E. Valdes-Perez, Ramon Pallas-Areny*

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Produktinformation Veröffentlicht am: 2009-02-11 Erscheinungsdatum: 2009-02-11 File Name: B008I9SJRG | File size: 29.Mb

Von Fernando E. Valdes-Perez, Ramon Pallas-Areny : Microcontrollers: Fundamentals and Applications with PIC before purchasing it in order to gage whether or not it would be worth my time, and all praised Microcontrollers: Fundamentals and Applications with PIC:

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ber PIC Assembler Code und PIC Peripherie Von Robert Heucke-Gareis Das Buch bietet einen guten Überblick der PIC-Familie. Die Assembler Befehle werden anhand von Beispielen dargestellt. Auf die Ansteuerung der Peripherie wird sehr ausführlich eingegangen. Allerdings fehlt eine Aufstellung aller Assembler Befehle im Anhang. Für Anfänger ist das Buch nicht geeignet, da Grundkonzepte wie Binärarithmetik und Routinen zur 16bit Manipulation fehlen. Die kann man sich als fortgeschrittener User selber stricken. Zum regulären Preis ist das Buch eindeutig zu teuer. Wegen der o.g. Mängel (Assembler Code Überblick, 16bit Arithmetik fehlt) erhält das Buch von mir 3 Sterne.

Kurzbeschreibung Microcontrollers exist in a wide variety of models with varying structures and numerous application opportunities. Despite this diversity, it is possible to find consistencies in the architecture of most microcontrollers. Microcontrollers: Fundamentals and Applications with PIC focuses on these common elements to describe the fundamentals of microcontroller design and programming. Using clear, concise language and a top-bottom approach, the book describes the parts that make up a microcontroller, how they work, and how they interact with each other. It also explains how to program medium-end PICs using assembler language. Examines analog as well as digital signals This volume describes the structure and resources of general microcontrollers as well as PIC microcontrollers, with a special focus on medium-end devices. The authors discuss memory organization and structure, and the assembler language used for programming medium-end PIC microcontrollers. They also explore how microcontrollers can acquire, process, and generate digital signals, explaining available techniques to deal with parallel input or output, peripherals, resources for real-time use, interrupts, and the specific characteristics of serial data interfaces in PIC microcontrollers. Finally, the book describes the acquisition and generation of analog signals either using resources inside the chip or by connecting peripheral circuits. Provides hands-on clarification Using practical examples and applications to supplement each topic, this volume provides the tools to thoroughly grasp the architecture and programming of microcontrollers. It avoids overly specific details so readers are quickly led toward design implementation. After mastering the material in this text, they will understand how to efficiently use PIC microcontrollers in a design process. Kurzbeschreibung Microcontrollers exist in a wide variety of models with varying structures and numerous application opportunities. Despite this diversity, it is possible to find consistencies in the architecture of most microcontrollers. Microcontrollers: Fundamentals and Applications with PIC focuses on these common elements to describe the fundamentals of microcontroller design and programming. Using clear, concise language and a top-bottom approach, the book describes the parts that make up a microcontroller, how they work, and how they interact with each other. It also explains how to program medium-end PICs using assembler language. Examines analog as well as digital signals This volume describes the structure and resources of general microcontrollers as well as PIC microcontrollers, with a special focus on medium-end devices. The authors discuss memory organization and structure, and the assembler language used for programming medium-end PIC microcontrollers. They also explore how microcontrollers can acquire, process, and generate digital signals, explaining available techniques to deal with parallel input or output, peripherals, resources for real-time use, interrupts, and the specific characteristics of serial data interfaces in PIC microcontrollers. Finally, the book describes the acquisition and generation of analog signals either using resources inside the chip or by connecting peripheral circuits. Provides hands-on clarification Using practical examples and applications to supplement each topic, this volume provides the tools to thoroughly grasp the architecture and programming of microcontrollers. It avoids overly specific details so readers are quickly led toward design implementation. After mastering the material in this text, they will understand how to efficiently use PIC microcontrollers in a design process. Synopsis While the official documentation provided for the PIC family from Microchip is extensive, it can also be overwhelming. This book gives users the information necessary to understand the architecture and the programming of microcontrollers. Each topic is described using a reader-centered, top-bottom approach. After, the authors describe the concepts that are common to any microcontroller, each topic is then detailed for PIC microcontrollers. Practical applications provide further clarity.