PIC MICROCONTROLLERS: KNOW IT ALL

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Included in series
Newnes Know It All.

Description
The Newnes Know It All Series takes the best of what our authors have written over the past few years and creates a one-stop reference for engineers involved in markets from communications to embedded systems and everywhere in between. PIC design and development a natural fit for this reference series as it is one of the most popular microcontrollers in the world and we have several superbly authored books on the subject. This material ranges from the basics to more advanced topics. There is also a very strong project basis to this learning. The average embedded engineer working with this microcontroller will be able to have any question answered by this compilation. He/she will also be able to work through real-life problems via the projects contained in the book. The Newnes Know It All Series presentation of theory, hard fact, and project-based direction will be a continual aid in helping the engineer to innovate in the workplace. Section I. An Introduction to PIC Microcontrollers Chapter 1. The PIC Microcontroller Family Chapter 2. Introducing the PIC 16 Series and the 16F84A Chapter 3. Parallel Ports, Power Supply
and the Clock Oscillator

Section II. Programming PIC Microcontrollers using Assembly Language

Chapter 4. Starting to Program? An Introduction to Assembler

Chapter 5. Building Assembler Programs

Chapter 6. Further Programming Techniques

Chapter 7. Prototype Hardware

Chapter 8. More PIC Applications and Devices

Chapter 9. The PIC 1250x Series (8-pin PIC microcontrollers)

Chapter 10. Intermediate Operations using the PIC 12F675

Chapter 11. Using Inputs

Chapter 12. Keypad Scanning

Chapter 13. Program Examples

Section III. Programming PIC Microcontrollers using PicBasic

Chapter 14. PicBasic and PicBasic Pro Programming

Chapter 15. Simple PIC Projects

Chapter 16. Moving On with the 16F876

Chapter 17. Communication

Section IV. Programming PIC Microcontrollers using MBasic

Chapter 18. MBasic Compiler and Development Boards

Chapter 19. The Basics? Output

Chapter 20. The Basics? Digital Input

Chapter 21. Introductory Stepper Motors

Chapter 22. Digital Temperature Sensors and Real-Time Clocks

Chapter 23. Infrared Remote Controls

Section V. Programming PIC Microcontrollers using C

Chapter 24. Getting Started

Chapter 25. Programming Loops

Chapter 26. More Loops

Chapter 27. NUMB3RS

Chapter 28. Interrupts

Chapter 29. Taking a Look under the Hood

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Appendix B. The Electronic Ping-Pong

Appendix C. DIZI-2 Board and Lock Application

Appendix D. Program M

Appendix E. Program N

Appendix F. Program O

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Appendix I. Useful PIC Data

Appendix J. PIC 16F84A Datasheet