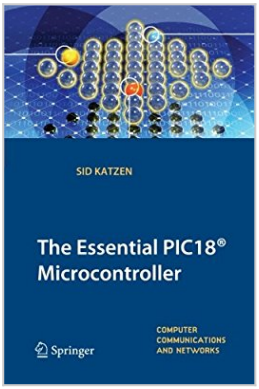


# The Essential PIC18® Microcontroller (Computer Communications and Networks)

*By Sid Katzen*



**The Essential PIC18® Microcontroller (Computer Communications and Networks)** By Sid Katzen

Microprocessors are the key component of the infrastructure of our 21st-century electronic- and digital information-based society. More than four billion are sold each year for use in 'intelligent' electronic devices; ranging from smart egg-timer through to aircraft management systems. Most of these processor devices appear in the form of highly-integrated microcontrollers, which comprize a core microprocessor together with memory and analog/digital peripheral ports. By using simple cores, these single-chip computers are the cost- and size-effective means of adding the brains to previous dumb widgets; such as the credit card. Using the same winning format as the successful Springer guide, The Quintessential PIC(R) Microcontroller, this down-to-earth new textbook/guide has been completely rewritten based on the more powerful PIC18 enhanced-range Microchip MCU family. Throughout the book, commercial hardware and software products are used to illustrate the material, as readers are provided real-world in-depth guidance on the design, construction and programming of small, embedded microcontroller-based systems. Suitable for stand-alone usage, the text does not require a prerequisite deep understanding of digital systems. Topics and features: uses an in-depth bottom-up approach to the topic of microcontroller design using the Microchip enhanced-range PIC18(R) microcontroller family as the exemplar; includes fully worked examples and self-assessment questions, with additional support material available on an associated website; provides a standalone module on foundation topics in digital, logic and computer architecture for microcontroller engineering; discusses the hardware aspects of interfacing and interrupt handling, with an emphasis on the integration of hardware and software; covers parallel and serial input/output, timing, analog, and EEPROM data-handling techniques; presents a practical build-and-program case s

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## Editorial Review

Review

From the reviews:

“I must indeed use it as a reference book for my class … . the book begins with basic concepts, but covers all aspects of real-world PIC programming. … it is full of questions and examples, with answers and solutions that are very conducive to learning and understanding how to build applications with PIC microcontrollers. … it covers not only the Assembly programming language, but also interfacing with peripheral and serial buses, a main application of microcontrollers. … well written, clear, and easy to follow.” (Javier Castillo, ACM Computing Reviews, December, 2010)

From the Back Cover

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**Topics and features:**

- Uses an in-depth bottom-up approach to the topic of microcontroller design using the Microchip enhanced-range PIC18® microcontroller family as the exemplar
- Includes fully worked examples and self-assessment questions, with additional support material available on an associated website
- Provides a standalone module on foundation topics in digital, logic and computer architecture for microcontroller engineering
- Discusses the hardware aspects of interfacing and interrupt handling, with an emphasis on the integration of hardware and software
- Covers parallel and serial input/output, timing, analog, and EEPROM data-handling techniques
- Presents a practical build-and-program case study, as well as illustrating simple testing strategies

This useful text/reference book will be of great value to industrial engineers, hobbyists and people in academia. Students of Electronic Engineering and Computer Science, at both undergraduate and postgraduate level, will also find this an ideal textbook, with many helpful learning tools.

**Dr. Sid Katzen** is Associate to the School of Engineering, University of Ulster at Jordanstown, Northern Ireland.

## Users Review

**From reader reviews:**

**Mary Ehlers:**

This book untitled The Essential PIC18® Microcontroller (Computer Communications and Networks) to be one of several books this best seller in this year, honestly, that is because when you read this publication you can get a lot of benefit onto it. You will easily to buy this specific book in the book retail store or you can order it by means of online. The publisher of this book sells the e-book too. It makes you quickly to read this book, as you can read this book in your Smartphone. So there is no reason for your requirements to past this publication from your list.

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**Marcia Marshall:**

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**Jean Gonzales:**

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