Microprocessors And Microcomputers: Hardware And Software (6th Edition)
Using the popular, powerful, and easy-to-understand 68HC11 microprocessor as a representative example, this book provides a comprehensive introduction to the concepts, principles, and techniques of microprocessors and microprocessor based systems. Chapter topics include Number Systems and Codes, Digital Circuits, Memory Devices, Introduction to Computers, Microcomputer Structure and Operation, The Microprocessor: Heart of the Microcomputer, Programming the 68HC11 MPU, Input/Output Modes, and Input/Output Interfacing. For those interested in a career in electrical or computer engineering.

We used this as a textbook at the Univ. of Mich. Overall this is a good introduction to microcontrollers/processors. Authors kept discussion at the 'logic gates' level with an introduction to the Motorolla HC11 programming. Pace is gentle and just enough detailed for introduction to the subject.

I bought a used book. I'm a software guy. But I have always been fascinated by the hardware. I had taken a few typical required HW courses for CS major many years ago. They were more than enough for software people. But I felt the magic was still unraveled. Over the years I picked up a few books for self-study including Ronald J. Tocci’s Digital Systems. I found the author’s explaining very insightful which is what had been missing (or missed by me) in those courses or other textbooks I
ran into. This text provides an insightful machine code level description of the operation detail of an 8-bit MCU. I went through ch2-ch9 and most of questions and problems. In the end, I felt the urge to hand assembling some machine code to catch the falling edge of a RS-232 serial signal. Of course this is not the goal. Armed with the knowledge and background, I was able to comprehend AVR 328 MCU datasheet and enjoy the joy of Arduino projects.

Microprocessors and Microcomputers by Ronld Tocci provides an good introduction to the microprocessor world. It does a very good job at explaining what the different components of a microprocessor based system does and how they fit together. This book is not for someone who is reasonably knowledgable about the subject (i.e. you have already built and programed a simple microcontroller or microprocessor based system). The more experienced need to find a title targeting their specific processor of choice.

This is an excellent book. It provides a comprehensive overview of microcomputer architecture. I recommend it to anyone who wants an introduction to the microcontroller field. Enjoyed reading it. Very informative. Learned a lot.

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