Product Description
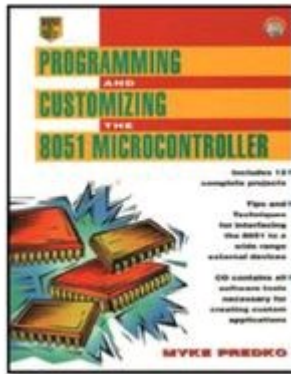
Microcontrollers can be found in just about everything electronic, from cars (suspension systems, anti-lock brakes, electronic seats, etc.) kitchen appliances. The 8051 is probably the most successful microcontroller on the market today. Even though it was introduced by Intel in 1980, the architecture has flourished where today there are over 20 chip manufacturers building and selling their own version of the chip. This book will introduce readers to Microcontrollers and the 8051's processor architecture and instructions. With this background, it will build the readers knowledge with over 30 experiments and 12 complete application projects.

From the Back Cover

For work or fun--projects, exercises, and insights of the world's most popular microcontroller. Over 30 experiments and 13 complete projects demonstrate 8051 capabilities. CD-ROM gives you all the software you need to begin developing 8051 applications. A volume in TAB's hit Microcontroller Series. This tutorial/disk package is unique in providing you with a complete understanding of the 8051 chip compatibles along with all the information needed to design and debug tailor-made applications using. Programming & Customizing the 8051 Microcontroller details the features of the 8051 and demonstrates how to use these embedded chips to access and control many different devices. This book shows you what happens within the 8051 when an instruction is executed, and it demonstrates how to interface 8051's with external devices. Giving you a wide range of experiments and exercises that provide hands-on experience with the 8051, this book also features: clear explanations of how the devices are electronically programmed, along with a design for Atmel 2010 microcontroller programmer that you build; tools for developing 8051 applications; two sample 8051 real time operating systems; help in programming both assembly language and high-level applications; tips to make code development and debugging easier. In addition, extensive appendices give you even more resources for help in developing and debugging 8051 applications, as well as expert tips on avoiding typical application problems.