

1. Record Nr.	UNINA9910153076903321
Autore	Mazidi Muhammad Ali
Titolo	The 8051 microcontroller and embedded systems // Muhammad Ali Mazidi, Janice Gillispie Mazidi, Rolin D. McKinlay
Pubbl/distr/stampa	Harlow, England : , : Pearson, , 2014 2014
ISBN	1-292-03895-0
Edizione	[Second edition, Pearson new international edition.]
Descrizione fisica	1 online resource (641 pages) : illustrations, tables
Disciplina	004.165
Soggetti	Intel 8051 (Microcontroller) Programmable controllers Microcontrollers Embedded computer systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover -- Title -- Contents -- CHAPTER 0: INTRODUCTION TO COMPUTING -- Section 0.1 : Numbering and coding systems -- Section 0.2: Digital primer -- Section 0.3: Inside the computer -- CHAPTER 1: THE 8051 MICROCONTROLLERS -- Section 1. 1 : Microcontrollers and embedded processors -- Section 1.2: Overview of the 805 1 family -- CHAPTER 2: 8051 ASSEMBLY LANGUAGE PROGRAMMING -- Section 2.1 : Inside the 8051 -- Section 2.2: Introduction to 8051 Assembly programming -- Section 2.3: Assembling and running an 8051 program -- Section 2.4: The program counter and ROM space in the 8051 -- Section 2.5: 8051 data types and directives -- Section 2.6: 8051 flag bits and the PSW register -- Section 2.7: 8051 register banks and stack -- CHAPTER 3: JUMP, LOOP, AND CALL INSTRUCTIONS -- Section 3.1 : Loop and jump instructions -- Section 3.2: Call instructions -- Section 3.3 : Time delay for various 8051 chips -- CHAPTER 4: I/O PORT PROGRAMMING -- Section 4.1 : 8051 I/O programming -- Section 4.2: I/O bit manipulation programming -- CHAPTER 5: 8051 ADDRESSING MODES -- Section 5.1 : Immediate and register addressing modes -- Section 5.2: Accessing memory using various addressing modes -- Section 5.3: Bit addresses for I/O and

RAM -- Section 5.4: Extra 128-byte on-chip RAM in 8052 -- CHAPTER 6: ARITHMETIC & LOGIC INSTRUCTIONS AND PROGRAMS -- Section 6.1 : Arithmetic instructions -- Section 6.2: Signed number concepts and arithmetic operations -- Section 6.3: Logic and compare instructions -- Section 6.4: Rotate instruction and data serialization -- Section 6.5: BCD, ASCII, and other application programs -- CHAPTER 7: 8051 PROGRAMMING IN C -- Section 7.1 : Data types and time delay in 8051 C -- Section 7.2: 110 programming in 8051 C -- Section 7.3: Logic operations in 8051 C -- Section 7.4: Data conversion programs in 8051 C. Section 7.5: Accessing code ROM space in 8051 C -- Section 7.6: Data serialization using 8051 C -- CHAPTER 8: 8051 HARDWARE CONNECTION AND INTEL HEX FILE -- Section 8.1: Pin description of the 8051 -- Section 8.2: Design and test of DS89C4xO trainer -- Section 8.3: Explaining the Intel hex file -- CHAPTER 9: 8051 TIMER PROGRAMMING IN ASSEMBLY AND C -- Section 9.1 : Programming 8051 timers -- Section 9.2: Counter programming -- Section 9.3: Programming timers 0 and 1 in 8051 C -- CHAPTER 10: 8051 SERIAL PORT PROGRAMMING IN ASSEMBLY AND C -- Section 10.1 : Basics of serial communication -- Section 10.2: 8051 connection to RS232 -- Section 10.3: 8051 serial port programming in Assembly -- Section 10.4: Programming the second serial port -- Section 10.5: Serial port programming in C -- CHAPTER 11: INTERRUPTS PROGRAMMING IN ASSEMBLY AND C -- Section 11.1 : 8051 interrupts -- Section 11.2: Programming timer interrupts -- Section 11.3 : Programming external hardware interrupts -- Section 11.4: Programming the serial communication interrupt -- Section 11.5: Interrupt priority in the 8051/52 -- Section 11.6: Interrupt programming in C -- CHAPTER 12: LCD AND KEYBOARD INTERFACING -- Section 12.1 : LCD interfacing -- Section 12.2: Keyboard interfacing -- CHAPTER 13: ADC, DAC, AND SENSOR INTERFACING -- Section 13.1 : Parallel and serial ADC -- Section 13.2: DAC interfacing -- Section 13.3: Sensor interfacing and signal conditioning -- CHAPTER 14: 8051 INTERFACING TO EXTERNAL MEMORY -- Section 14.1 : Semiconductor memory -- Section 14.2: Memory address decoding -- Section 14.3: 8031/51 interfacing with external ROM -- Section 14.4: 8051 data memory space -- Section 14.5: Accessing external data memory in 8051 C -- CHAPTER 15: 8051 INTERFACING WITH THE 8255 -- Section 15.1 : Programming the 8255 -- Section 15.2: 8255 interfacing. Section 15.3: 8051 C programming for the 8255 -- CHAPTER 16: DS12887 RTC INTERFACING AND PROGRAMMING -- Section 16.1 : DS 12887 RTC interfacing -- Section 16.2: DS12887 RTC programming in C -- Section 16.3: Alarm, SQW, and IRQ features of the DS12887 chip -- CHAPTER 17: MOTOR CONTROL: RELAY, PWM, DC, AND STEPPER MOTORS -- Section 17.1 : Relays and optoisolators -- Section 17.2: Stepper motor interfacing -- Section 17.3: DC motor interfacing and PWM -- APPENDIX A: 8051 INSTRUCTIONS, TIMING, AND REGISTERS -- APPENDIX B: BASICS OF WIRE WRAPPING -- APPENDIX C: IC TECHNOLOGY AND SYSTEM DESIGN ISSUES -- APPENDIX D: FLOWCHARTS AND PSEUDOCODE -- APPENDIX E: 8051 PRIMER FOR X86 PROGRAMMERS -- APPENDIX F: ASCII CODES -- APPENDIX G: ASSEMBLERS, DEVELOPMENT RESOURCES, AND SUPPLIERS -- APPENDIX H: DATA SHEETS -- INDEX.

Sommario/riassunto

Preface Introduction The Classical Period: Nineteenth Century Sociology Auguste Comte (1798-1857) on Women in Positivist Society Harriett Martineau (1802-1876) on American Women Bebel, August (1840-1913) on Women and Socialism Emile Durkheim (1858-1917) on the Division of Labor and Interests in Marriage Herbert Spencer

(1820-1903) on the Rights and Status of Women Lester Frank Ward (1841-1913) on the Condition of Women Anna Julia Cooper (1858-1964) on the Voices of Women Thorstein Veblen (1857-1929) on Dress as Pecuniary Culture The Progressive Era: Early Twentieth Century Sociology Georg Simmel (1858-1918) on Conflict between Men and Women Mary Roberts (Smith) Coolidge (1860-1945) on the Socialization of Girls Anna Garlin Spencer (1851-1932) on the Woman of Genius Charlotte Perkins Gilman (1860-1935) on the Economics of Private Household Work Leta Stetter Hollingworth (1886-1939) on Compelling Women to Bear Children Alexandra Kolontai (1873-1952) on Women and Class Edith Abbott (1876-1957) on Women in Industry 1920s and 1930s: Institutionalizing the Discipline, Defining the Canon Du Bois, W. E. B. (1868-1963) on the "Damnation" of Women Edward Alsworth Ross (1866-1951) on Masculinism Anna Garlin Spencer (1851-1932) on Husbands and Wives Robert E. Park (1864-1944) and Ernest W. Burgess (1886-1966) On Sex Differences William Graham Sumner (1840-1910) on Women's Natural Roles Sophonisba P. Breckinridge (1866-1948) on Women as Workers and Citizens Margaret Mead (1901-1978) on the Cultural Basis of Sex Difference Willard Walter Waller (1899-1945) on Rating and Dating The 1940s: Questions about Women's New Roles Edward Alsworth Ross (1866-1951) on Sex Conflict Alva Myrdal (1902-1986) on Women's Conflicting Roles Talcott Parsons (1902-1979) on Sex in the United States Social Structure Joseph Kirk Folsom (1893-1960) on Wives' Changing Roles Gunnar Myrdal (1898-1987) on Democracy and Race, an American Dilemma Mirra Komarovsky (1905-1998) on Cultural Contradictions of Sex Roles Robert Staughton Lynd (1892-1970) on Changes in Sex Roles The 1950s: Questioning the Paradigm Viola Klein (1908-1971) on the Feminine Stereotype Mirra Komarovsky (1905-1998), Functional Analysis of Sex Roles Helen Mayer Hacker on Women as a Minority Group William H. Whyte (1917-1999) on the Corporate Wife Talcott Parsons and Robert F. Bales on the Functions of Sex Roles Alva Myrdal (1902-1986) and Viola Klein (1908-1971) on Women's Two Roles Helen Mayer Hacker on the New Burdens of Masculinity.
