

အခန်း(၁) PIC18F Microcontroller Series

- ၁-၁။ နိဒါန်း
- ၁-၂။ PIC18FXX2 Architecture
- ၁-၃။ Program Memory Organization
- ၁-၄။ Data Memory Organization
- ၁-၅။ The Configuration Registers
 - ၁-၅-၁။ CONFIG1H
 - ၁-၅-၂။ CONFIG2L
 - ၁-၅-၃။ CONFIG2H
- ၁-၆။ The Power Supply
- ၁-၇။ The Reset
 - ၁-၇-၁။ Power-on-Reset
- ၁-၈။ The Clock Sources
 - ၁-၈-၁။ Crystal or Ceramic Resonator Operation
 - ၁-၈-၂။ External Clock Operation
 - ၁-၈-၃။ Resistor/Capacitor Operation
 - ၁-၈-၄။ Crystal or Resonator with PLL
 - ၁-၈-၅။ Internal Clock
 - ၁-၈-၆။ Clock Switching
- ၁-၉။ Watchdog Timer
- ၁-၁၀။ Parallel I/O Ports
 - ၁-၁၀-၁။ PORTA
 - ၁-၁၀-၂။ PORTB
 - ၁-၁၀-၃။ PORTC, PORTD, PORTE, and Beyond
- ၁-၁၁။ TIMER
 - ၁-၁၁-၁။ TIMER 0
 - ၁-၁၁-၂။ TIMER 1
 - ၁-၁၁-၃။ TIMER 2
 - ၁-၁၁-၄။ TIMER 3
- ၁-၁၂။ Capture/Compare/PWM Modules (CCP)
 - ၁-၁၂-၁။ Capture Mode
 - ၁-၁၂-၂။ Compare Mode
 - ၁-၁၂-၃။ PMW Mode

အခန်း(၂) C Programming Language

- ၂-၁။ နိဒါန်း
- ၂-၂။ Structure of a mikroC Program
 - ၂-၂-၁။ Comments
 - ၂-၂-၂။ Beginning and Ending of a Program
 - ၂-၂-၃။ Terminating Program Statements
 - ၂-၂-၄။ White Spaces
 - ၂-၂-၅။ Case Sensitivity
 - ၂-၂-၆။ Variable Names
 - ၂-၂-၇။ Variable Types
 - ၂-၂-၈။ Constants
 - ၂-၂-၉။ Escape Sequences
 - ၂-၂-၁၀။ Static Variables
 - ၂-၂-၁၁။ External Variables
 - ၂-၂-၁၂။ Volatile Variables
 - ၂-၂-၁၃။ Enumerated Variables
 - ၂-၂-၁၄။ Arrays
 - ၂-၂-၁၅။ Pointers
 - ၂-၂-၁၆။ Structures
 - ၂-၂-၁၇။ Unions
 - ၂-၂-၁၈။ Operators in C
 - ၂-၂-၁၉။ Modifying the Flow of Control
 - ၂-၂-၂၀။ Mixing mikroC with Assembly Language Statements

၂-၃။ PIC Microcontroller Input-Output Port Programming

၂-၄။ Programming Examples

အခန်း(၃) Functions and Libraries in mikroC

- ၃-၁။ mikroC Functions
 - ၃-၁-၁။ Function Prototypes
 - ၃-၁-၂။ Passing Arrays to Functions
 - ၃-၁-၃။ Passing Variables by Reference to Functions
 - ၃-၁-၄။ Variable Number of Arguments
 - ၃-၁-၅။ Function Reentrancy
 - ၃-၁-၆။ Static Function Variables
- ၃-၂။ mikroC Built-in Functions

၃-၃။ mikroC Library Functions

- ၃-၃-၁။ EEPROM Library
- ၃-၃-၂။ LCD Library
- ၃-၃-၃။ Software UART Library
- ၃-၃-၄။ Hardware USART Library
- ၃-၃-၅။ Sound Library
- ၃-၃-၆။ ANSI C Library
- ၃-၃-၇။ Miscellaneous Library

အခန်း(၄) mikroC Integrated Development Environment (IDE)

- ၄-၁။ နိဒါန်း
- ၄-၂။ Software Development Tools
 - ၄-၂-၁။ Text Editors
 - ၄-၂-၂။ Assemblers and Compilers
 - ၄-၂-၃။ Simulators
 - ၄-၂-၄။ High-Level Language Simulators
 - ၄-၂-၅။ Integrated Development Environments (IDEs)
- ၄-၃။ Hardware Development Tools
- ၄-၄။ mikroC Integrated Development Environment (IDE)
 - ၄-၄-၁။ mikroC IDE Screen
 - ၄-၄-၂။ Creating and Compiling a New File
 - ၄-၄-၃။ Using the Simulator

အခန်း(၅) Simple PIC18 Projects

- ၅-၁။ နိဒါန်း
- ၅-၂။ Program Description Language (PDL)
 - ၅-၂-၁။ START-END
 - ၅-၂-၂။ Sequencing
 - ၅-၂-၃။ IF-THEN-ELSE-ENDIF
 - ၅-၂-၄။ DO-ENDDO
 - ၅-၂-၅။ REPEAT-UNTIL
- PROJECT 5.1 - Chasing LEDs
- PROJECT 5.2 - LED Dice
- PROJECT 5.3 - Two-Dice Project
- PROJECT 5.4 - Two-Dice Project Using Fewer I/O Pins
- PROJECT 5.5 - 7-Segment LED Counter
- PROJECT 5.6 - Two-Digit Multiplexed 7-Segment LED

- PROJECT 5.7 - Two-Digit Multiplexed 7-Segment LED Counter with Timer Interrupt
- PROJECT 5.8 - Voltmeter with LCD Display
- PROJECT 5.9 - Calculator with Keypad and LCD
- PROJECT 5.10 - Serial Communication-Based Calculator

အခန်း(၆) Advanced PIC18 Projects- SD Card Projects

- ၆-၁။ နိဒါန်း
- ၆-၂။ The SPI Bus
- ၆-၃။ Operation of the SD Card in SPI Mode
- ၆-၄။ mikroC Language SD Card Library Functions
- PROJECT 6.1 - Read CID Register and Display on a PC Screen
- PROJECT 6.2 - Read/Write to SD Card Sectors
- PROJECT 6.3 - Using the Card Filing System
- PROJECT 6.4 - Temperature Logger

အခန်း(၇) Advanced PIC18 Projects- USB Bus Projects

- ၇-၁။ နိဒါန်း
- ၇-၂။ PIC18 Microcontroller USB Bus Interface
- ၇-၃။ mikroC Language USB Library Functions
- PROJECT 7.1 - USB-Based Microcontroller Output Port
- PROJECT 7.2 - USB-Based Microcontroller Input/Output
- PROJECT 7.3 - USB-Based Ambient Pressure Display on the PC