

ADVANCED ARM CORTEX



CURRICULUM

» Module 1:-

- Introduction to ARM Processor
- ARM Architecture
- ARM series
- Cortex Processor and its variants
- Pipelining Concept
- Memory Mapping
- Bus Architecture
- Sys Tick Timer
- NVIC & Interrupt Handling
- Comparison between various ARM Architecture

» Module 2:-

- Adding Filters to Expressions
- Filtering Input
- Order By filter

» Module 3:-

- Introduction to STM Controllers
- STM32 32-bit ARM cortex MCU's
- Package Types & Portfolio
- Nomenclature of STM32
- STM32 Architectures and its Features
- Hardware Considerations
- Memory map & bus structure
- External Oscillators
- Clock control and Internal Oscillators
- PVD/POR/PDR
- Boot Modes

» Module 4: Peripherals interfacing

- EMBEDDED C PROGRAMMING
- C programming basics
- Difference between C and Embedded C
- Compiler handling
- Creating and modifying projects in Compiler Conventional programs
- Basic Embedded programs structure
- Getting your programs into a compiler , writing your programs

» 1.INTRODUCTION TO REAL WORLD INTERFACE

- Led interfacing
- Seven Segment interfacing
- Micro switch Interfacing
- Keypad interfacing
- LCD interfacing

3.TIMERS

- Timer Features & programming
- Pin Description
- Register Description

» 4.SERIAL PORT

- Basics of serial port (RS232)
- Types of connectors
- Interfacing pc with micro controller
- MAX 232 interface Hardware structure
- Serial port configuration (mode selection)

» 5.SERIAL PORT

- INTERRUPT CONTROLLER
- Basics of interrupt
- Polling method
- Difference between polling and interrupt method
- Interrupt service routine (ISR)
- Vector Interrupt Control
- FIQ
- IRQ
- NVIC

» 1.ADC:-

- Theory of ADC
- Types
- Inbuilt ADC
- Interfacing external device to ADC

» 7.SENSOR INTERFACING:-

- Introduction to Sensing Devices
- IR Sensor Interfacing
- Temperature Sensor Interfacing

» 8. C PROTOCOL IINTERFACING

- Features
- Applications
- Pin Description
- Architecture and Register Description
- LCD interfacing

» 9.SERIAL PERIPHERAL INTERFACE (SPI)

- Features
- Applications
- Pin Description
- Architecture and Register Description

» 10.PULSE WIDTH MODULATION-

- PWM Generator
- Register Description
- Application

» 11.DMA (Direct Memory Access)

Partners :



Java



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