

Training and Practicals Process

ARM 7 Board [LPC 2148]

Classes 5-Days a week for Weekdays Batch
Theory(1 1/2 -2 hrs.) and practical (2 hrs.)
Classes 2-Days for a Weekend Batch(Sat & Sun)
Theory(2 1/2 -3 hrs) and practical (3hrs.)
Daily theory and lab assignments
Repeation classes will be conducted as required.



MODULE 2: ARM7TDMI-S and EMBEDDED C PROGRAMMING

CH1. INTRODUCTION TO ARM

- Why Embedded C Programming
- Why Assembly Programming
- History & Features
- Compilation Model
- How to Compile & Run a C program
- Strategy of Desinging a Program

CH2. ARM DEVELOPMENT TOOLS SETUP

- GNU Compiler,Keil
- Cygwin,Makefile
- Linker script,Startupfile

CH3. ARM LPC2148 ARCHITECHTURE

- Registers and Bus Architecture
- Exception modes and Pipelinig
- Generals Purpose I/O's
- Memory Map,MAM,ISP & IAP
- PLL,VLSI Peripheral Bus Driver
- Power Control,Interrupt Systems
- PLL Programming

CH4. ARM PROGRAMMING

- Multi-function Pin explanation
- GPIO Programming
- IOSET,IOCLR,IODIR,IOPIN Regs.
- I/O Direction Setting

CH5. I2C PROGRAMMING

- I2C Overview
- I2C-Bus Configuration
- I2C Operating modes
- I2C Master Transmitter mode
- I2C Master Receiver mode
- I2C Implementation and operation
- I2C Programming

CH6. ARM PROGRAMMER'S MODEL

- Data Size and Instruction Size
- Operating Modes
- ARM Registers Sets
- Program Status Register

CH7. INTERRUPTS and ISR

- Interrupt Definition and its Structure
- FIQ Interrupts
- Vectored IRQ
- Non Vectored IRQ nested
- Registering Interrupt Handler

CH8. PERIPHERIALS PROGRAMMING

- GPIO Interfacing Programming
- LCD Interfacing Programming
- LED Interfacing Programming
- LED with Switch Interfacing Programming
- INTERRUPT Programming
- Timer and Counter Programming
- UART Interfacing Programming
- UART with LCD Interfacing Programming
- PWM Programming Programming
- ADC and DAC Interfacing Programming
- LCD ,ADC and DAC Interfacing Programming

CH9. SPI PROGRAMMING

- SPI Overview
- SPI Data transfer format
- SPI Data to clock phase relationship
- SPI Master operation
- SPI Slave operation
- SPI Register description
- SPI Programming

info@embisyslabs.com

+91-88848 67053

Embisys Labs Development,Training,Consultancy & Support www.embisyslabs.com