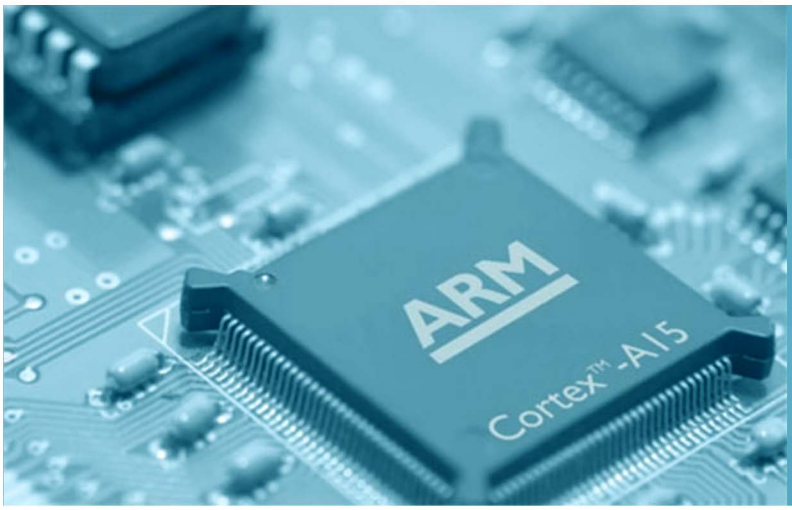

ARM7 – NXP's LPC2148

This Workshop is a practical approach targeted to improve the student's Knowledge in Microcontroller and in Embedded C to develop code on the family of ARM processor based Micro-Controllers. This workshop will be a firm stepping stone for implementing any kind of high-end embedded projects.

The objective is to provide adequate information about the ARM7 family Micro-controllers so that the learner will be able to initiate designing and development of prototypes of projects quickly on 16 and
32-Bit controller platform.

DESCRIPTION

A structured course with a smooth flow of information to gain expertise and therefore to gain appreciation on the following aspects:

- Internal Architecture of ARM7 Based NXP's LPC2148 micro controller, pin description, internal operations in detail
- Advanced programming methods, monitoring and control of the peripherals

  - o GPIOs,
  - o ADCs and DACs
  - o DC Motors, Stepper Motors,
  - o Temperature Sensors,
  - o LCDs,
  - o Keypad Decoding,
  - o UART, Timers, Counters, Interrupts Etc.

This module also deals with the connections that are to be made on the PCBs, to develop the project prototype kit by the student him/her self.

PLAT FORM

16 and 32 Bit ARM7 based NXP's LPC2148 MICRO CONTROLLER Coding on Keil uVision4 considering both ARM and THUMB Modes.

DURATION

4 Days (8 Hrs Per Day)

DELIVERY METHOD

Instructor driven, Programming in Embedded-C, Hands-On assignments on the controller kit.

COURSE TOPICS

Introduction to ARM7, ARM royalty strategy, Programming with internal peripherals, Interfacing and programming external peripherals – LEDs, switches, ADC/DAC, LCD, Keypad, Motors, Sensors etc. Interrupt handling and other efficient programming techniques. This module specifically handles the ARM specific Efficient C Programming Technique for mission critical applications. ARM Normal and THUMB Modes.

MATERIAL FOR THE PARTICIPANTS

1. LPC2148 based ARM7 Starter Kit (to be bought separately at subsidized rates)
2. CD containing all the slides, Programming Software, UART Terminal Controlling Apsis Proprietary executable and plenty of code examples.
3. Participation Certificates.

INNOVATING THROUGHOUT

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