

QUALIFICATION FILE – Certificate Course in Embedded System Design using ARM/ Cortex Microcontroller

Annexure - I

Course Curriculum

Certificate Course in Embedded System Design using ARM/ Cortex Microcontroller

Duration: 80 Hours

Objective

This course aims to make students to get the skills of programming the microcontroller, interfacing of external peripherals to microcontroller and troubleshooting of microcontroller based embedded electronic systems/products.

Course Description

| Element | Course Description | Theory Hrs | Practical Hrs |
|--|---|------------|---------------|
| Module1: Embedded C | Introduction to Embedded systems Introduction to C and Embedded C Introduction to Keil uVision | 5 | 10 |
| Module2: ARM /Cortex Architecture | Introduction to ARM/Cortex family microcontrollers Developing programs with ARM/Cortex microcontrollers. Simulating programs on Keil IDE | 5 | 10 |
| Module3: ARM/Cortex Peripherals (Timers/Interrupts/Serial port) | Introduction to Timers and interface with ARM/Cortex microcontroller Introduction to Interrupts and interface with ARM/Cortex microcontroller Introduction to Serial Port and interface with ARM/Cortex | 5 | 20 |

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|---|---|-----------|----|
| | microcontroller | | |
| Module4: Interfacing ARM/ Cortex to peripheral devices(LCD, Stepper motor, Keypad etc) | Introduction to external peripherals | 5 | 20 |
| | Interfacing ARM/Cortex microcontroller with LCD | | |
| | Interfacing ARM/Cortex microcontroller with key board | | |
| | Interfacing ARM/Cortex microcontroller with stepper motor | | |
| | | 20 | 60 |
| Total | | 80 | |

Reference

ARM System Developer’s Guide: Designing and Optimizing System Software 1st Edition (Designing and Optimizing System Software)

Publisher: Morgan Kaufmann Publishers

ISBN: 9788181476463, 8181476468

Edition: 1st, 2011

Placement Details

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|---|
| <p>Certificate Course in Embedded System Design using ARM/ Cortex Microcontroller</p> |
| <p>This course helps the students to get placement in three ways.</p> <ol style="list-style-type: none"> 1. Campus placement 2. Job referral programs where we direct our previous batch students to various companies 3. Students apply directly. The theory, practical done during the course enables the students to pass the screening test and helps in the |

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interview.

5. Students are encouraged to take up entrepreneurship/ self-employment in line with Government of India initiatives like Make In India, ESDM etc

List of students selected recently : NA (New Course)