

About Us

SRI Electronics and Embedded Solutions,Coimbatore, are focused on Knowledge in an Embedded Field to provide the Industrial certification programs for the modules like 8051, AVR, PIC, ARM, ARDUINO, RASPBERRY PI, RENESAS, IOT, etc., based on embedded system has been concentrated in training division. All Electronic based and embedded based industrial and college level project works and also research project work for the Phd scholars has been done services with the highest levels of customer satisfaction – we will do everything we can to meet your expectations.

Embedded System Design

Course Duration:25T+75P=100hrs

Module I

Advanced concepts of 8051 Microcontroller & Interfacing Exercises

Module II

Advanced concepts of PIC Microcontroller & Interfacing Exercises

Module III

Advanced concepts of Arduino Microcontroller & Interfacing Exercises

Module IV

Advanced concepts of ARM Microcontroller & Interfacing Exercises

Industrial / Research / College Projects

Projects should be done on the following areas

- * Bio Medical
- * Agriculture
- * Industrial Automation
- * Home Automation
- * IOT (Internet of Things)
- * Robotics
- * Controllers like PIC, Atmel, ARM, Arduino,Renesas, Raspberry pi
- * Communication Protocols like I2C, SPI, CAN
- * Wireless Modules like GPS, GSM, RF Zigbee, Bluetooth
- * Motors Like Stepper,DC,Servo & BLDC



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SRI ELECTRONICS AND EMBEDDED SOLUTIONS

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Industrial Training Courses & Projects

Embedded C

Course Duration: **5T+15P=20hrs**

- * Introduction to C & Embedded C
- * Basic Elements in C
- * I/O Concepts
- * Preprocessor
- * Operators
- * Decision Making
- * Loops
- * Functions
- * Arrays
- * Pointers
- * Structure and unions
- * Storage Class
- * Introduction To PIC Microcontroller
- * Architecture, Features and Applications
- * Introduction To MPLab IDE & HI-TEC C

EMBEDDED



Practical Section

- * C Programming & Exercises
- * Embedded C & Concepts
- * LED & Switch Interfacing
- * 7-Segment & switch Interfacing
- * Relay Interfacing
- * LCD & ADC Interfacing
- * Motor Interfacing

Design of Embedded System using ARM

Course Duration: **5T+35P=40hrs** Practical Section (50+ Exercises)

- * Introduction to ARM, Keil & Proteus
- * Features of LPC2148
- * Architecture, Pin Diagram
- * Memory Organization, Instruction set
- * I/O Ports, ADC, Timers, PWM (CCP)
- * UART, Interrupts, MSSP (SPI and I2C)
- * I2C RTC & SPI EEPROM
- * LED & Switch Interfacing
- * 7-Segment & switch Interfacing
- * Relay & Switch Interfacing
- * LCD (8,4bit mode), Stop Watch
- * EEPROM Interfacing
- * I2C & RTC Interfacing
- * PWM Interfacing
- * ADC Interfacing
- * Stepper Motor Interfacing
- * DC Motor Interfacing
- * Matrix Keypad Interfacing
- * UART Interfacing
- * GSM Interfacing
- * RF(Radio Frequencies) Interfacing
- * GPS Interfacing
- * Zigbee & Bluetooth Interfacing



Design of Embedded System using AVR

Course Duration: **5T+30P=35hrs**

- * Introduction to AVR, Keil & Proteus
- * Features of Atmega 2560
- * Architecture, Pin Diagram
- * Memory Organization, Instruction set
- * I/O Ports, ADC, Timers, PWM (CCP)
- * UART, Interrupts, MSSP (SPI and I2C)
- * I2C RTC & SPI EEPROM

Practical Section (50+ Exercises)

- * LED & Switch Interfacing
- * 7-Segment & switch Interfacing
- * Relay & Switch Interfacing
- * LCD (8,4bit mode), Stop Watch
- * EEPROM Interfacing
- * I2C & RTC Interfacing
- * PWM Interfacing
- * ADC Interfacing
- * Stepper Motor Interfacing
- * DC Motor Interfacing
- * Matrix Keypad Interfacing
- * UART Interfacing
- * GSM Interfacing
- * RF(Radio Frequencies) Interfacing
- * GPS Interfacing
- * Zigbee & Bluetooth Interfacing



Embedded Robotics

Course Duration: **5T+30P=35hrs**

- * Introduction to Embedded C
- * Data types, Identifiers, Operators
- * Branching & Looping statements
- * Functions & Arrays
- * Pointers & Structure and unions

Practical Section

- * LED & Switch Interfacing
- * Sensor Interfacing
- * LCD & ADC Interfacing
- * Motor Interfacing
- * Line Follower,
- * Obstacle Avoider Robot
- * DTMF (Mobile Operated) Robot
- * Fire Detected & IR Control Robot
- * Bluetooth control Robot



Design of Embedded System using Arduino

Course Duration: **5T+35P=40hrs**

- * Introduction to Arduino
- * Features of Atmega 328
- * Architecture, Pin Diagram
- * Memory Organization, Instruction set
- * I/O Ports, ADC, Timers, PWM (CCP)
- * UART, Interrupts, MSSP (SPI and I2C)
- * I2C RTC & SPI EEPROM

Practical Section (50+ Exercises)

- * LED & Switch Interfacing
- * 7-Segment & switch Interfacing
- * Relay & Switch Interfacing
- * LCD (8,4bit mode), Stop Watch
- * EEPROM Interfacing
- * I2C & RTC Interfacing
- * PWM Interfacing
- * ADC Interfacing
- * Stepper Motor Interfacing
- * DC Motor Interfacing
- * Matrix Keypad Interfacing
- * UART Interfacing
- * GSM Interfacing
- * RF(Radio Frequencies) Interfacing
- * GPS Interfacing
- * Zigbee & Bluetooth Interfacing



PCB Designing

Course Duration: **5T+30P=35hrs**

- * Introduction of PCB
- * Process of PCB designs
- * Schematic, Starting a project
- * Working of design tools & Schematic
- * Placing, editing, and connecting parts
- * About libraries and parts
- * Preparing to create a net list
- * Exporting and importing schematic data.

- * Layout Design & PCB Workflow
- * Footprint for SMD and Through hole
- * Importing & Components placing
- * Details of layers & Routing guidelines
- * Routing single layer to multi layer
- * Copper Pour & DRC Checking
- * Adding reference texts
- * Gerber file generation

- * Schematic capture
- * From schematic to PCB
- * Parts placement and routing
- * Making footprints
- * Making the Gerber file
- * Sample Exercises



Design of Embedded System using PIC

Course Duration: **5T+35P=40hrs**

- * Introduction to PIC, MPLab IDE, Proteus
- * Features of PIC 16F877A & 18F458
- * Architecture, Pin Diagram
- * Memory Organization, Instruction set
- * I/O Ports, ADC, Timers, PWM (CCP)
- * UART, Interrupts, MSSP (SPI and I2C)
- * CAN, I2C RTC & SPI EEPROM

Practical Section (50+ Exercises)

- * LED & Switch Interfacing
- * 7-Segment & switch Interfacing
- * Relay & Switch Interfacing
- * LCD (8,4bit mode), Stop Watch
- * EEPROM & PWM Interfacing
- * I2C & RTC Interfacing
- * CAN Interfacing
- * ADC Interfacing
- * Stepper Motor Interfacing
- * DC Motor Interfacing
- * Matrix Keypad Interfacing
- * UART Interfacing
- * GSM Interfacing
- * RF(Radio Frequencies) Interfacing
- * GPS Interfacing
- * Zigbee & Bluetooth Interfacing



Internship /Inplant Training

Course Duration: **1 Weeks**

Training should be given under the areas

- * Training on Embedded System using 8051 MCU
- * Training on Embedded System using AVR MCU
- * Training on Embedded System using PIC MCU
- * Training on Embedded System using ARDUINO
- * Training on Embedded System using ARM
- * Training on Embedded System using RENESAS MCU
- * Training on Embedded System using MSP 430

- * Training on CAN Protocols
- * Training on IOT (Internet of Things)
- * Training on Raspberry Pi
- * Training on PCB Designing
- * Training on Robotics

Industrial Training

More details visit @ www.sriembeddedsolutions.in