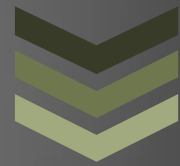


# PINE TRAINING ACADEMY



## Course Module

YOU'RE CAREER, OUR PASSION

Summer Training Program on Embedded System.

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4/26/2016



Pine Training Academy

## Summer Training Program on Embedded System.

Module	Detailed Syllabus	Duration
<b>Module-1</b> Introduction.	<ul style="list-style-type: none"> <li>• Introduction to Pine Training Academy.</li> <li>• Introduction of Embedded System.</li> <li>• Philosophy of Embedded System.</li> <li>• Embedded System Design &amp; Development Process.</li> </ul>	Week 1-Month 1
<b>Module-2</b> Embedded Hardware.	<ol style="list-style-type: none"> <li>1. Analog Introduction wrt to Embedded System.</li> <li>2. Digital Introduction wrt to Embedded System.</li> <li>3. Hardware Design (prototype design concept)</li> <li>4. Assembly Language for 8051 and PIC MCU (8 Bit).</li> </ol>	Week 1 and 2-Month 1
<b>Module-3</b> Embedded Programing Interface	<ol style="list-style-type: none"> <li>5. Basic of C Language.</li> <li>6. Embedded C (Processor C).</li> <li>7. Implementation on hardware kit using both C and Assembly Language.</li> <li>8. Difference between 8/16/32/ARM Architecture and its working.</li> <li>9. Basic Interface 1-LCD, Keyboard, Sensor, Relay.</li> </ol>	Week 3 and 4-Month 1
<b>Module-4</b> Project	<ol style="list-style-type: none"> <li>10. Industry Standard Project - Basic Study of working on LIVE Project i.e. Project Understanding and Its Requirement.                             <ul style="list-style-type: none"> <li>• Common Rail Rejection system testing</li> <li>• GSM based automotive security system</li> <li>• GPRS based cluster energy meter</li> <li>• Single phase energy meter</li> <li>• Three phase energy meter</li> <li>• Multi tariff energy meter</li> <li>• IPV4/IPV6 based smart home</li> <li>• Smart Drive</li> <li>• Digital Direct Control</li> <li>• Bluetooth based client server application</li> <li>• Smart City automation solution for street light and water management.</li> <li>• Smart Agricultural system</li> </ul> </li> </ol>	Week 1,2,3,4 Month 2

<b>Module -5 Advanced Embedded System Optional</b>	11. Basic Interface 2- Memory card, ADC/DAC, Motor, RTC, EEPROM. 12. Introduction of 16 bit/32bit (ARM) and its basic architecture and difference. 13. Advanced Interface – Ethernet, USB, RTOS, SPI Driver, UART, Serial/Parallel Port Driver and CAN/LIN. 14. Real Time Application/Projects based on TI or Renesas Platform depend on the availability of vendor resources. 15. Linux Kernel and Shell Programming. 16. Wireless Interface – 2.4 GHz (RF) ISM band using ZIGBEE Protocol Stack, IOT (Internet on Things), and IPV6 base stack, Linux Device Driver for I2C Driver	
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**Batch Start:** 1<sup>st</sup> /2<sup>nd</sup> Week of June, 2016.

**Batch Size:** 20 seats.

**Duration:** 1 Month (4 week) Training and 1 Month (4 week) Project.

**Eligibility Criteria:**

1. B.E. or B. Tech from E & C, E & I, E & E, Computer Science/IT.

**Perquisite:-**

1. Knowledge of Advanced and Basic Digital System.

**Required:-**

**LAPTOP:** – With Minimum Configuration DUAL CORE or i3 or i5 Processor, 2/4 GB DDR3, 500 HDD with window XP or Window 7.

**FEES and Payment Schedule Details:**

**Course Fees: Rs 7500+14.5 % Service Tax.**

**Mode of Payment- Through Cheque or Cash.**

**\*END\***