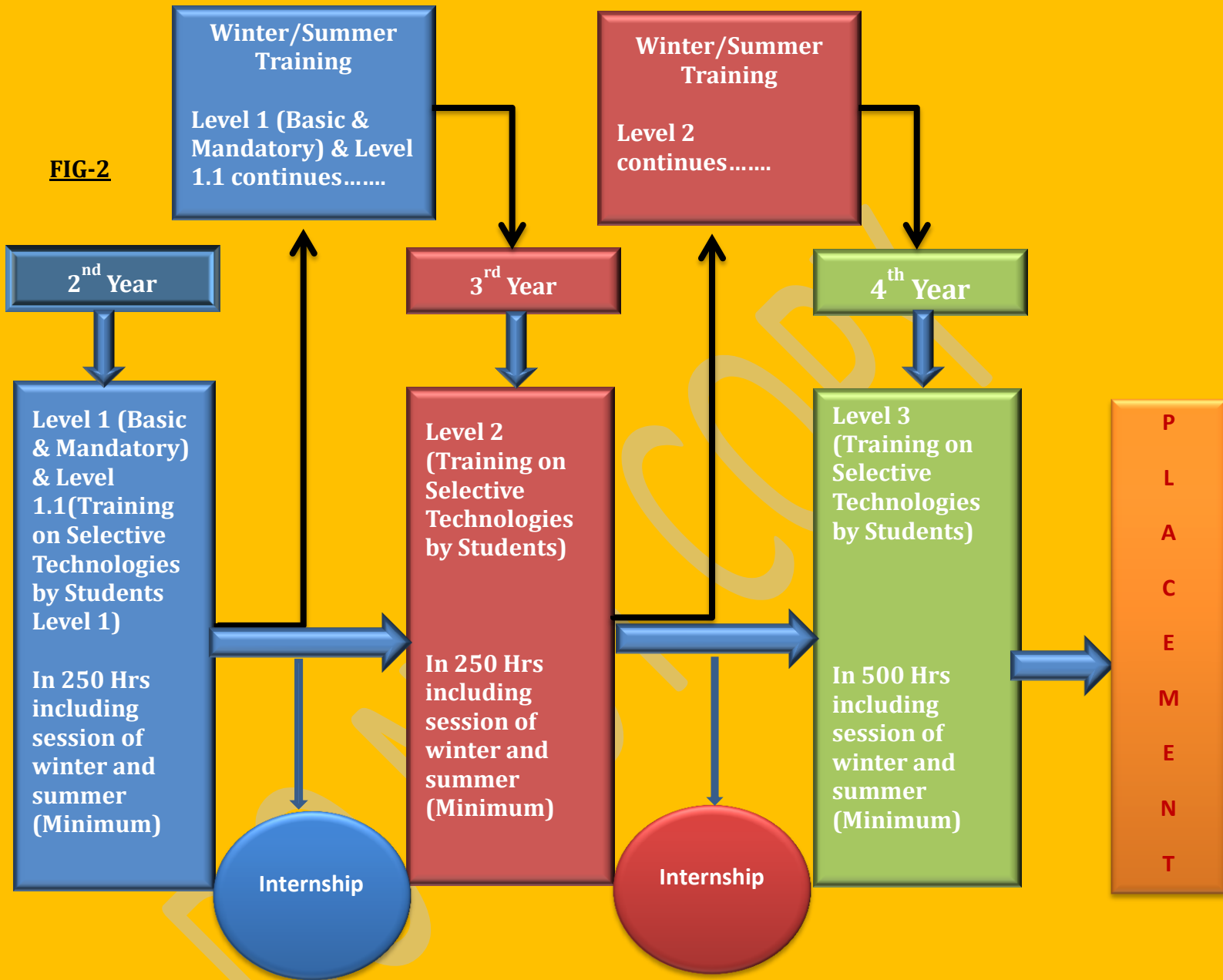


Method We follow- How to Get Entry Pass in SEMICODUCTOR Industries for 2nd year engineering students

FIG-2



Embedded System Design

Course Structure for 2nd year only

Analog and Digital (20 Hrs) Module -1	Fundamental of C and - (40 Hrs) Module-2	Embedded System (40 Hrs) - Module-3	Module-3- Continue
<p>Analog Electronics</p> <ul style="list-style-type: none"> • Diode • BJT <p>Digital Electronics</p> <ul style="list-style-type: none"> • Boolean Algebra • Karnaugh Map • Logic Gates • Numbers system • Combinational Circuits • Sequential Circuits • FSM • Tutorial • HANDS ON (All gates, combinational and sequential circuit's simulation on Xilinx ISE Design and Vivado Design Suite). 	<p><u>Introduction to C Components</u></p> <ul style="list-style-type: none"> • Header Files • Variables and Constants • Operators <p><u>Decision Making and Control Statements</u></p> <ul style="list-style-type: none"> • If-else. • Nested if -else. • Switch • Loops-for,while and do while. <p><u>Programming in Depth Arrays and Strings</u></p> <ul style="list-style-type: none"> • Basic Array Concepts • String Handling Functions • Programming <p><u>Functions</u></p> <ul style="list-style-type: none"> • Definition and Declaration • Calling and Passing Value to Functions <p><u>Structures Pointers</u></p> <ul style="list-style-type: none"> • Basic Concepts • Pointers and Arrays • Pointer and Structures <p><u>Dynamic Memory Allocation</u></p> <ul style="list-style-type: none"> • Introduction • Malloc,Calloc <p>File Management.</p>	<ul style="list-style-type: none"> • Applications of Embedded System • Domains of Embedded System • Case study: Embedded System v/s standard Computer System • Case study: Embedded System • Block Diagram: General Embedded System • Classification of Processors • Micro- Processor v/s Micro-controller • Product Development Lifecycle: Embedded Systems <p><u>Introduction to 8051</u></p> <ul style="list-style-type: none"> • Basic Components of 8051 • Block Diagram: 8051 • Pin Description • Criteria in Choosing a Microcontroller • 8051 Microcontroller Family • 8051 Hardware Detail 	<p><u>Software Development Tools for 8051</u></p> <ul style="list-style-type: none"> • Introduction to IDE • Components of IDE • Linker • Debugger • Keil uVision IDE • Proteus Simulator <p><u>Inside 8051</u></p> <ul style="list-style-type: none"> • Block Diagram • Inside AT89C51 • AT89C51 Basic Components • Important Pins • On-Chip Internal RAM <p><u>GPIO (General Purpose Input Output)</u></p> <ul style="list-style-type: none"> • Exploring the Capabilities of On-Chip Resources Programming for I/O Ports • Pin Diagram: AT89C51 • Registers • Pin Description • Port 3 Alternate Functions <p><u>Port Programming Ports/Pin Basic Interface</u></p> <ul style="list-style-type: none"> • LED Interfacing • Switch Interfacing • Keypad • LED • LCD • Sensor ,Relay

Embedded System Design

Course Structure for 3rd year only

Analog and Digital Design - Advanced (20 Hrs) Module -4	Embedded System - Basic -2 (20 Hrs) Module -5	Embedded System - Advanced (20 Hrs) Module -6	Embedded System Advanced Interfaces (40 Hrs) Module -7
<ul style="list-style-type: none">• MOSFET• CMOS• Timing Fundamental	<ul style="list-style-type: none">• ADC• DAC• Memory Card• RTC• Motor• EEPROM	<ul style="list-style-type: none">• 16 /32 Bit Architecture and its working on all basic interfaces.• Real Time Application/Projects based on TI or Renesas Platform depend on the availability of vendor resources.	<ul style="list-style-type: none">• Ethernet• USB• RTOS• LINUX Device Driver• I2C• SPI• UART• CAN• LIN•

Embedded System Design

Course Structure for 4th year only

Wireless Interface - Module (40 Hrs) - Module 8.	Project -1 (60 hrs) Module -9	Project -2 (60 Hrs) Module -10	
<ul style="list-style-type: none">• 2.4 GHz (RF) ISM band using ZIGBEE Protocol Stack• IOT (Internet on Things)• IPV6 base stack	Project based on Embedded Application	Project Based on IOT Application	