



AnalyticsMentors



Master Program in Embedded System

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5000+

STUDENTS TRAINED
& COUNTING

100+

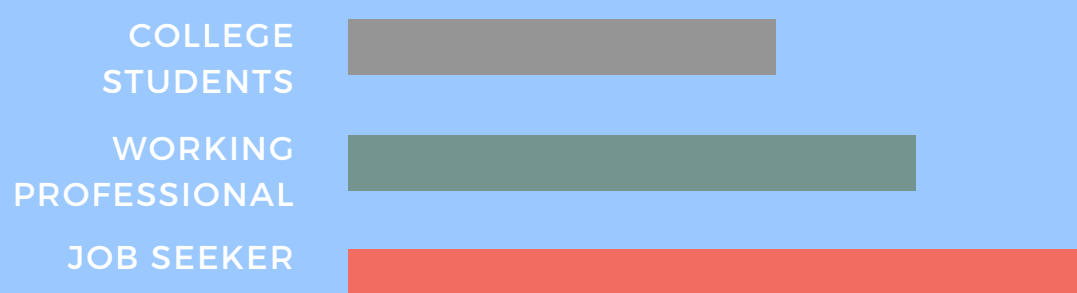
PREFERRED US FOR
CORPORATE
TRAININGS

8

COUNTRIES CONNECTED



OUR CUSTOMERS



CODING SIMPLIFIED



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About US

AnalyticsMentors is one of the top training institutes for Embedded Systems. The course ensures students are given confidence in coding. Real Time projects on AVR and ARM ensure students are well-versed with practical knowledge.

If you want to upgrade yourself in Embedded Systems, this is the right course to undergo.

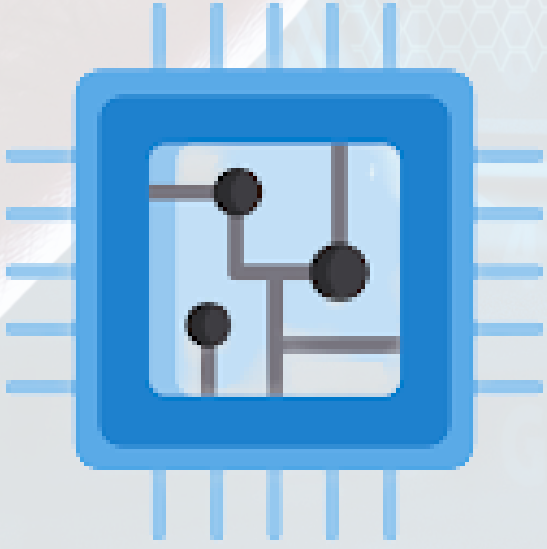


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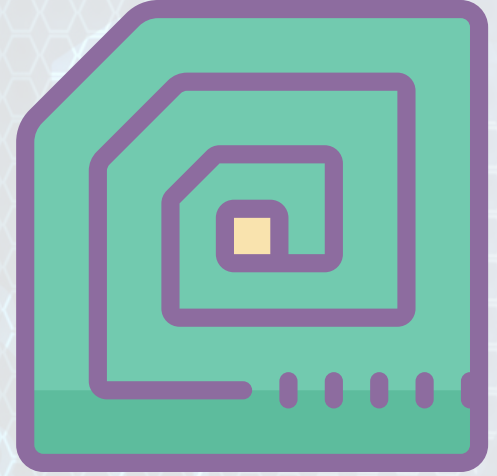
Key Features



Embedded C



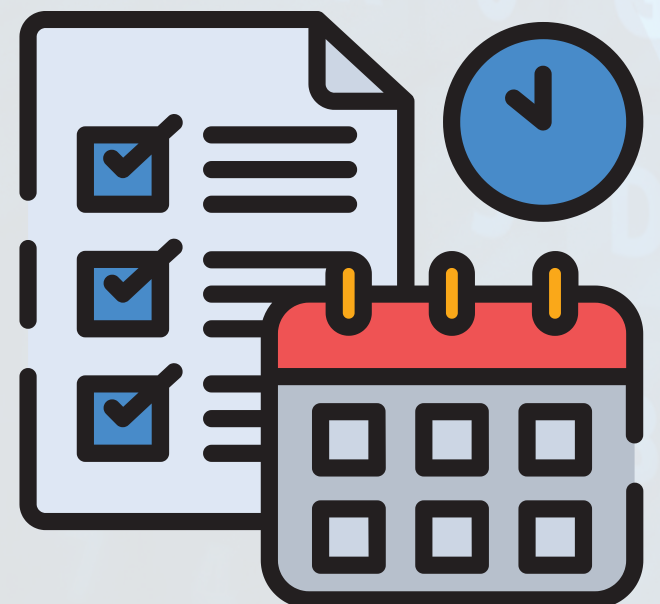
AVR, ARM7



GSM, GPS, RFID,
Xbee



I2C, CAN Protocol



Real Time
Projects



Detailed Syllabus of the Course:

Module 1 C Programming	
	Sub-TOPICS
Introduction	<ul style="list-style-type: none">• Fundamentals of program• Features of language• Software Description• Compilation Stages• C Program Structure
Software Installation	<ul style="list-style-type: none">• Installing Code::Blocks• Exploring the Code::Blocks Environment• Creating a Project in Code::Blocks
Basic Concepts	<ul style="list-style-type: none">• Preprocessor in C• Input & Output• C Token, Identifiers &, Keyword
Variables and Data Types	<ul style="list-style-type: none">• Variables• Data Type• Format Specifiers
Operators	<ul style="list-style-type: none">• C Operators• Cast and size of Operator
Control Flow	<ul style="list-style-type: none">• If statements• Switch statement• Conditional Branching Control statements



Conditional Looping	<ul style="list-style-type: none">• For loop• While and Do-while loop• Nested loops
Arrays & Strings,	<ul style="list-style-type: none">• Creating and Initializing Arrays Multidimensional Arrays• Variable length Arrays• Defining String• Indexing on String• Common string functions
Functions	<ul style="list-style-type: none">• Basics of function• Defining of function• Arguments & Parameters• Returning data from function• Local and global variable
Structures & Pointers	<ul style="list-style-type: none">• Creating and Using Structures• Defining and Accessing Pointers• Pointers and Arrays

Module 2 AVR Microcontroller

Topics	Sub-TOPICS
Basics of Embedded C	<ul style="list-style-type: none">• Different Ports and Registers configuration• Code syntax in Embedded C
Interfacing with AT mega16: Output	<ul style="list-style-type: none">• LED interfacing• Seven Segment Display interfacing• Relay interfacing• DC motor interfacing



Interfacing with AT mega16 : Input	<ul style="list-style-type: none">• Button interfacing• Keyboard interfacing
Timer /Counter	<ul style="list-style-type: none">• Basics of Timer & Counter• Registers for Timer• Led blink using Timer
Interrupt	<ul style="list-style-type: none">• Basics of Interrupt• Registers for Interrupt• Button as Interrupt
Display Interfacing	<ul style="list-style-type: none">• 16 * 2 LCD interfacing with ATmega16 : 8 bit & 4 bit
PWM	<ul style="list-style-type: none">• Basic of PWM• Registers for PWM• Servo motor Interfacing using PWM
ADC	<ul style="list-style-type: none">• Understanding of ADC• Registers for ADC• Potentiometer Interfacing using ADC
Serial Communication	<ul style="list-style-type: none">• Understanding of Serial communication• Serial communication : UART• Serial communication protocols: SPI,• I2C



Module 3 ARM Microcontroller

Topics	Sub-TOPICS
Introduction of ARM as RISC machine	<ul style="list-style-type: none">• Overview of ARM family
Introduction to LPC2148	<ul style="list-style-type: none">• Features of ARMLPC2148• Processor operating modes• 3 stages ARM pipeline.
Interfacing with LPC2148: Output	<ul style="list-style-type: none">• Explanation of GPIO• LED interfacing• Seven Segment Display interfacing
Interfacing with LPC2148 : Input	<ul style="list-style-type: none">• Button interfacing• Keyboard interfacing
PLL	<ul style="list-style-type: none">• Understanding of PLL Concept• PLL configuration, Power control, VP
Timer /Counter	<ul style="list-style-type: none">• Basics of Timer & Counter• Registers for Timer• Led blink using Timer
Interrupt	<ul style="list-style-type: none">• Vectored interrupted controller (VIC)• External interrupt and



ADC	<ul style="list-style-type: none">• Analog to Digital converter (ADC)
UART	<ul style="list-style-type: none">• Serial communication using UART, UART Programming
Protocols	Wireless protocol: RFID, X bee, Wireless protocol: GPS, GSM, Bluetooth.
	Project Submission



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Deliverables

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- **100% Practical Training**
- **Projects and Research**



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