Basic of C Language

- Overview of C
- Features of C
- My First C program
- C Input/Output
- C Syntax
- Keywords and Identifier
- C operators
- Data Types
- C Variables
- Decision Making
- Switch Statement
- Looping

Advance Topics

- Function
- Storage classes
- C Structures
- Typedef
- Unions
- Pointer
- File Handling
- Error Handling
- Dynamic memory allocation
- Command line argument

C programs

- Find Factorial of a Number
- Reverse a String
- Find Fabonacci Series
- Find sum of a digit
- Sorting an Array element
- Swapping two number
- Find largest number of an array
- Pallindrome Program
- Remove duplicate element in an array program

Advanced C Programming – Detailed Course Outline

Section 1 - Getting Started
- C Refresher
- Bitwise Operators and Expressions
- Unions
- Non-local Control Transfers
- Memory to Memory Conversions

Section 2 - C's Run Time Environment
- Text, Stack, Data, Heap
- Stack Frames
- Pointers to Functions
- Recursive Functions
- Dynamic Storage Allocation

Section 3 - Arrays and Pointers
- Multi-Dimensional Arrays
- Pointers vs. Arrays
- Compact Pointer Expressions
- Efficiency Techniques
- Multi-Dimensional Arrays at Run Time
- Functions with Varying Arguments

Section 4 - A Closer Look at C
- Sequence Guarantee Points
- Right-Left Rule
- Lvalues in Expressions
- Fast Array Transfers

Section 5 - C Debugging Techniques
- Embedded Test Drivers
- Assertions
- Customized Memory Allocators
- Selective Debug Prints