DURATION OH THE COURSE: 60 hours(4 WEEKS)

Module 1. (Week1-16 hours)

- Introduction of C++ , C++ Features,First C++ Program,
- Datatype and variables Declaration, Variable Names, tokens, Types of data types, C++ cout, cin, endl, C++ Identifiers
- Operators and Expressions:C++ Expression, Assignment Operator, Arithmetic Operators, Relational Operators, Logical, increment and decrement operators, The conditional Operator and types conversion.
- Control Flow Statements: if-else,switch,For Loop,While Loop, Do-While Loop,Break Statement, Continue StatementC++ goto Statement.

Module 2. (Week2-14 hours)

- Functions, Call by value & reference, Recursion, Storage Classes.
- Array, Arrays Multidimensional Arrays, Pointers, PointersC++ Void PointerC++ ReferencesReference vs PointerFunction Pointer.
- C++ Memory Managementmalloc() vs new in C++free vs delete in C++

Module 3 (Week3 -16 hours)

- Object-Oriented Programming: Introduction to Object Oriented Programming, Classes and objects, Access Specifier.
- Constructor and types, Destructor, this pointer, inheritance and Aggregation, Encapsulation, polymorphism, Overloading, Virtual function, friend function.
- Abstraction (interfaces and Data abstraction), Namespaces, Exception(Exception Handling, try/catch, User Defined).
- C++ Template, C++ File & Stream

Module 4. (Week4 -14 hours)

- STL: introduction to STL, STL components, Vector, List and set, Queue and dequeue, priority queue.
- Map Multimap C++ Map C++ Bitset C++ Algorithm
- Iterators, Iterators, Bidirectional Iterator, Forward Iterator,Input Iterator Output. Iterator.