

## **C++ PROGRAMMING BASIC COURSE**

### **COURSE OVERVIEW:**

The intent of this course is to familiarize students with the fundamentals of Object Oriented Programming concept in C++ Programming. The course covering the basics of C++ and going in to more deeper in to the OOPS concepts like Class ,Objects, Inheritance, polymorphism, Templates .The course curriculum is designed as a combination of theory and practical. Course materials are covered with many hands on practical exercise with each theory topics.



### **COURSE CONTENT:**

**Fundamentals of Object-Oriented Programming:** Introduction to Class and Object

**Basics of C++:** Data Type, Variables, Constants, Operators, Comments in C++

**Conditional Statements in C++:** if, If –else, Switch s, for loop, While loop, Do- while loop, Break, Continue, go to, exit.

**Functions:** Function declaration, Function definition, Function call, Parameter Passing Mechanism; call by reference, Call by value, Recursive function

**Arrays:** Array declaration, Single dimension arrays, Multidimensional arrays, character arrays, Arrays and Functions

**Strings:** Working with Strings, Manipulating String Structure

**Union and Bit Fields:** Declaration of a structure, Initialization of a Structure, Array within structure, Union, Bit Field

**Class and Object** Declaration of a Class, Defining the Member Functions, Creating the Objects,Class and Arrays, Objects and Functions, Friend Functions ,Pointers and Objects

**Constructor and Destructors:** Structure of a Constructor, Types of Constructors, Destructor