Training Objectives: -

This training is designed so that participants will effectively learn to use both C and C++ in developing Software. The OOPs concept in programming C++ language provide a powerful platform for developing Software.

DURATION: 4 WEEKS (80 Hours)
FEE : RS. 6000/-(Inclusive of Service .Tax)*
ELIGIBILITY: B.E / B.TECH. in CS/IT/EC/EI/ IInd/ IIIrd/ IVth Year Students or MCA/M.Sc (IT/CS/Electronics), Diploma in any Stream
Form Fee Rs 50.00 Extra

How to Apply:

For Admission, submit your college reference/training letter along with fee of Rs 6000 (either in Cash or Demand Draft in favour of "**NIELIT, Gorakhpur**". The application form may be downloaded from our website or collected from reception.

Accommodation:

Hostel accommodation is available for Male candidates only.

Training Highlights

- Well Managed Course pattern
- Daily Handouts & Lab Exercise
- Industry Compliant Syllabus
- Use of Latest Tools & Technology
- LAB Assistance

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Course Contents (Syllabus of Training)

Introduction

Types of Programming Language, Introduction to C.

C Fundamentals

C character set, Identifiers and keywords, Data types, Constants, Variable and Arrays, Declarations, Expressions, Statements, Symbolic constants.

Operators and expressions

Arithmetic operators, Unary operators, Relational and logical operators, Assignment operators, Conditional operators, Library function.

Data Input and Output:

Single character Input- getchar() function, Single character Output- putchar() function, Entering Input Data-scanf() function, Writing Output Data- printf() function, gets() and puts() functions

Control statements

While statement, Do-while statement, For loop, Nested loops, If-else statement, switch statement, break statement, continue statement, goto statement.

Functions

Introduction, Defining function, Accessing a function, Passing arguments to a function, Specifying argument data types, Function prototypes, Recursion.

Program Structure

Storage Classes, Automatic variables, Static variables, Multiple file programs.

Arrays

Defining an Array, Processing an Array, Passing Arrays to a function, Multidimensional Arrays, Arrays and Strings

Pointers

Fundamentals, Pointer declarations, Passing pointer to a function, Pointers and one-dimensional Arrays, Operations on pointers, Pointers and multidimensional Arrays, Arrays of pointers, Passing function to other function Databases and Tables, Viewing Database, Table, and Field Information.

Structures and Unions

Defining a structure, Processing a structure, User-defined data type (typedef), Structures and Pointers, Passing structure to a function, Self referential structure, Unions, Enumerations

File Handling

Opening and closing a data file, Creating a data file, Processing a Data file, unformatted data files.

Principles of object oriented Programming

Procedure oriented programming approach, Object-oriented Programming paradigm, Concepts of object oriented programming, Benefits of OOPs.

Introduction to C++

Introduction to C++, Applications of C++, A Simple C++ Program, Structure of C++ Program, Creating source file, Compiling and linking

Tokens, Expressions and Control structures

Tokens, Keywords, Identifies and constants, Basic data types, User defined data types, Derived data types, Symbolic constants, Type compatibility, Declaration of variables, Dynamic Initialization of variables, Reference variables, Operator in C++, Scope resolution operator,

Member dereferencing operators, Memory management operators, Manipulators, Type cast operator, Expressions and their types, Special assignment expressions, Implicit conversions, Operator overloading (overview), Operator procedure, Control structures.

Functions in C++:

main functions, Function prototyping, Call by reference, Return by reference, Inline factors, Default

arguments, Const arguments, Function overloading, Friend and virtual functions.

Classes and objects

C structure, Specifying a class, Defining member functions, C++ Program with class, Making an outside function Inline, Nesting of member functions, Private member functions, Arrays within a class, Memory allocation for objects, Static data members, Static member functions, Arrays of objects, Objects as function argument, Fried functions, Returning objects, Const member functions , Pointers to members, Local classes, Inheritance.

Constructors and Destructors

Constructors, Parameterized constructors, Multiple Constructors in a class, Constructors with Defaults arguments, Dynamic Initialization of objects, Copy Constructors, Dynamic Constructors, Constructing two-dimensional Arrays, Const objects, Destructors.

Templates

Class templates, Class templates with multiple parameters, Function templates, Function templates with multiple parameters, Overloading of templates functions, Member function templates, Non-type template argument.

Exception Handling

Basics of Exception Handling, Exception handling Mechanism, Throwing Mechanism, Catching Mechanism, Re-throwing an Exception, Specifying Exception.

Manipulating Strings

Creating string objects, Manipulating string objects, Relational operations, String characteristics, Accessing characters in String, Comparing and swapping

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SUMMER TRAINING
in
"Programing in C/C++"

ORGANIZED BY

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