

C LANGUAGE COURSE CONTENTS

4th Semester Electronics and Telecommunication Engineering

Introduction of C

- The Basic of C Programming
- Syntax of C and C program structure
- Arithmetic expressions and variables
- Characteristics of C
- Control structures
- Why we use C?
- Loops in C
- Arrays
- Functions
- Arguments-Call by value & Call by reference
- External variables and scope

Types, Operators and Expressions

- Variable Names
- Data Types and Sizes
- Constants
- Declarations
- Arithmetic Operators
- Relational and Logical Operators
- Type Conversions
- Increment and Decrement Operators
- Bitwise Operators
- Assignment Operators and Expressions
- Conditional Expressions

Control Flow

- Statements and Blocks
- If-Else statement
- Else-If
- Switch
- Nested Loops
- Loops –While , Do-While and For
- Type Conversions
- Break and Continue
- Go to and labels

Functions and Program Structure

- Using of Functions and types of function
- Functions Returning Non-Integers
- Function Declaration
- Scope rules and header files
- Functions and Types
- Static variables and register variables
- Parameters and Functions
- Block Structure and initialization
- Function arguments passed by value and by reference
- Declaring parameters
- Recursion
- The C Preprocessor



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Pointers and Arrays

- What is pointer and uses for pointer
- Pointers and Function arguments
- Pointer syntax, Types casts
- Pointers and Arrays
- Address Arithmetic, Pointers and Initialization
- Calling functions by pointer
- Pointer Arrays; pointers to Pointers
- Pointers vs. Multi-dimensional Arrays

Structures

- Defining a Structure
- Array in Structures
- Arrays and pointers of Structures
- Structures as Function Arguments
- Self-referential Structures
- Table Lookup
- Type def
- Unions
- Structures within Structures (Nested Structures)
- Bit-fields

Input and Output

- Standard I/O and line I/O
- Reading and writing with fprintf, fscanf, fputc, and fgetc
- Variable-length argument lists
- Formatted Output – printf and formatted Input-scanf
- Formatted Input/ Output
- Typecasting
- Error FILE handling in C

File Handling

- Introduction to I/O function
- Creating I/O functions
- Command line argument

Preprocessors & graphics

- Defining Processors
- Macro Substitution
- Graphics in C

Internet Programming in C

- Network communications in C
- Packets & Sockets
- Protocols and Creating Sockets



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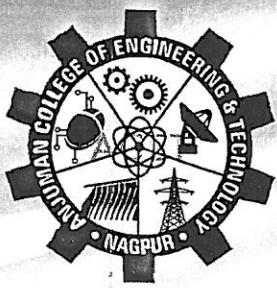
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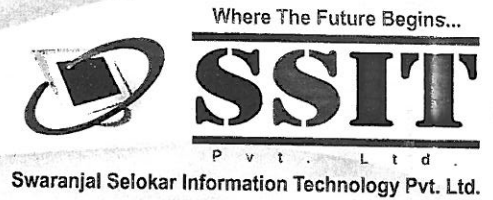
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Certificate



ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY NAGPUR

DEPARTMENT OF ELECTRONIC & TELECOMMUNICATION ENGINEERING

This is to certify that

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*has successfully completed training programme on C Language
from 20th December to 10th February, 2017 at Anjuman College
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