



AFFILIATED TO JAIN UNIVERSITY BANGALORE



# Company-Oriented Problem Solving using C & DSA

## PROPOSAL TO KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY

### **Day 1: Programming & DSA Foundations**

- **Problem-solving approach & logic building**
- **Time & space complexity (basics)**
- **Arrays: traversal, insertion, deletion**
- **Company-level array questions (Amazon, TCS style)**
- **Hands-on: 5–7 practice problems**

### **Day 2: Advanced Array Techniques**

- **1D & 2D arrays**
- **Prefix sum & sliding window**
- **Two-pointer technique (basics)**
- **Array optimization problems**
- **Hands-on: Real interview questions**

### **Day 3: Strings & Pattern-Based Questions**

- **String handling in C**
- **Palindrome, anagram, frequency problems**
- **String + array combined problems**
- **Company-based string challenges**
- **Hands-on: Coding + debugging session**

### **Day 4: Pointers & Structures**

- **Pointers: basics, pointer arithmetic**
- **Pointers with arrays & strings**
- **Structures & nested structures**
- **Real-world data modeling using structures**
- **Hands-on: Mini programs using pointers + structures**

#### **Day 5: Dynamic Memory Allocation & Linked Lists**

- Malloc, calloc, realloc, free
- Memory leaks & best practices
- Introduction to Linked Lists
- Insert, delete, traverse operations
- Hands-on: Build linked list programs

#### **Day 6: DSA Integration & Placement Practice**

- Stack & Queue (array-based)
- Combining arrays, strings & pointers
- Mock company coding test
- Interview tips & problem-solving strategy
- Final Assessment + Feedback

### **COST OF THE PROGRAM :**

**Students will be put up in batches and will given a project to develop Duration:**

**6 Days Cost of the Program : Rs.1500/ Head TAXES EXTRA**



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