**Technical Training Course Module**

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| **Academic Year: 2020-2021**  **For 2022 Pass-out batches** | | | | | |
| **Semester No** | **Duration (in Months)** | **Stream** | **Contact Hours/ Week** | **Total Duration** | **Training Topic** |
| 5th  6th  7th | November 2020  to  August, 2021 | B. Tech CSE  B. Tech IT  B. Tech ECE  B. Tech EE  B. Tech EIE | 2 Hours | 46 Hours | Algorithm Analysis & Programming |

**Prerequisite:** None.

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| **Module** | **Topics Covered** |
| **Module 1:**  **C Programming** | C Programming Language Revision:   * Library Functions * Branching (if-else, switch) * Loops * Arrays * Pointers * Functions, Recursion * Dynamic Memory Allocation * String * Structure * File Handling |
| **Module 2:**  **Analysis of Algorithm** | * Time and Space Complexity Analysis * Overview of Data Structure * Pseudo-Coding * Overview of Competitive Programming |
| **Module 3:**  **Object Oriented Programming** | * Overview of Object-Oriented Programming through Java * Encapsulation * Polymorphism: Run Time, Compile Time * Abstraction * Inheritance, Interface * Strings * Thread |