Course Title	**Design and Analysis of Algorithms**
Course Code	**EI-331**
Credit Hours	3
Category	Technical Elective
Prerequisite	CC-213: Data Structures and Algorithms
Co-Requisite	None
Follow Up	None
Course Description	Role of Algorithm in Computing, Analyzing Algorithms, Designing Algorithms, Growth of Functions, Asymptotic Notations, Sorting Algorithms, Time Complexity of Recursive Algorithms, Dynamic Programming, Greedy Algorithms, String Matching, Graphs, DFS, BFS, Minimum Spanning Trees, Shortest Path Algorithms, NP Completeness, Polynomial Time Algorithm, Polynomial Time verification.
Text Book(s)	1. Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein, Introduction to Algorithms, 3rd Edition, The MIT Press, 2009, ISBN-10: 0262033844, ISBN-13: 978-0262033848.
Reference Material	