## CT-157 DATA STRUCTURE ALGORITHMS & APPLICATIONS

A detailed study of the basic data structures commonly used in data processing; Techniques for data manipulation in structures such as stacks, queues, linked lists trees and graphs, management of memory space and overflow, sorting, and hash table methods; Searching and merging files, implementation and evaluation of various programming assignments.

## **Recommended Books:**

- 1. "A Common-Sense Guide to Data Structures and Algorithms: Level Up Your Core Programming Skills", Jay Wengrow, Pragmatic Bookshelf, 1st Edition, 2017.
- 2. "Data Structures with C", Seymour Lipschutz, McGraw-Hill, 2011.
- 3. "Data Structures and Algorithms", Alfred V. Aho, John E. Hopcroft and Jeffrey D. Ullman, Pearson Education Inc., Fourth Impression, 2010.