

# Advance Data Analytics

(Credit hours: Theory-2, Tutorial-1, Lab-1)

## COMPONENT 1

### UNIT 1

Association mining, Classification and Clustering: Revision. Data Streams mining, Social Network Analysis, Graph mining.

### UNIT 2

Mining algorithms for large data, Mining Big Data, Hadoop, MapReduce, HDFS, Spark + seminars

- Ian H. Witten and Eibe Frank, Data Mining: Practical Machine Learning Tools and Techniques (Second Edition), Morgan Kaufmann, 2005, ISBN: 0-12-088407-0.
- Hadzic F., Tan H. & Dillon T. S. "Mining data with Complex Structures" Springer, 2011  
Yates R. B. and Neto B. R. "Modern Information Retrieval " Pearson Education, 2005

## COMPONENT 2

### UNIT 3

Mining Sequence pattern in TD, Mining, Time-series data Mining

### UNIT 4

Deep Learning, probabilistic learning + seminars Detail + seminars

## Text/Reference Books:

- Bioinformatics Programming Using Python  
Mitchell L Model, O'Reilly
- Biopython Tutorial and Cookbook