**Advanced Data Structures and Algorithm Analysis**

**Assignment -2**

**CO4-L4**

**Assignment Topics for video presentation:**

1. B+ trees ADT operations with example
2. Threaded binary tress with example
3. Huffman coding using Greedy approach
4. Red-black trees ADT operations with example
5. Optimization in Find and union (Ex: path compression, ranking) with one application
6. Explain Pattern matching or string matching algorithms (Ex: naive string-matching algorithm, The Rabin-Karp algorithm, The Knuth-Morris-Pratt algorithm )
7. Explain external sorting algorithms
8. Explain Binomial queues ADT operations with examples
9. Explain topological sorting using greedy approach
10. Skip list
11. Splay trees
12. Explain Traveling Salesperson Decision Problem (TSP) using NP Hard graph concept