

Indian Institute of Technology Kharagpur
Course:MA29005 Design and Analysis of Algorithms Lab
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Lab Assignment -05 (Sep 05, 2017)

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Problems

1. Write an algorithm to display breadth first traversal of a graph starting from a given vertex. Find a Mother Vertex in a connected Graph using BFS (A mother vertex in a graph $G = (V, E)$ is a vertex v such that all other vertices in G can be reached by a path from v).
2. Write an algorithm to display depth first traversal of a graph starting from a given vertex. Use DFS to find transitive closure of a given graph.
3. Use DFS or BFS to display components of a graph.
4. Use DFS or BFS to check whether a given graph is tree or not (Check existence of cycles and connectivity).

All The Best!