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Abstract

Network Flow Problems have always been among the best studied combinatorial optimization problems. Flow networks are very useful to model real world problems like, current flowing through electrical networks, commodity flowing through pipes and so on. Maximum flow problem is the classical network flow problem. In this problem, the maximum flow which can be moved from the source to the sink is calculated without exceeding the maximum capacity. Once, the maximum flow problem is solved it can be used to solve other network flow problems also. The FORD-FULKERSON algorithm is the general algorithm which can solve all the network flow problems. The improvement of the Ford Fulkerson algorithm is Edmonds-Karp algorithm which uses BFS procedure instead of DFS to find an augmenting path. The modified Edmonds-Karp algorithm is designed to solve the maximum flow problem in efficient manner.

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Keywords

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