Optimizing Water Flow for Water Supply Using Augmenting Flow Algorithm

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Abstract

In a capacitated pipeline network, a problem that commonly occurred is finding maximum flow. It is finding the best amount of flow of flow rate of entity in the pipeline network. Water supply network is a kind of capacitated network because flow of water cannot exceed upper bound capacity of pipelines. So, the important thing is to maximize the flow of water from source to destination after passing through the pipeline network. In order to achieve this goal, engineers depend on optimization techniques. This paper propose a system to solve maximum flow problem by using Augmenting Flow Algorithm over Max Flow-Min Cut Theorem. This system is developed on water supply network of Yangon. The proposed system is to optimize the flow of water in water supply network of Yangon and it is also intended to make suggestion for water pipeline design.