Signed graph can be used as a graph theoretic tool to study transportation problem. A transportation problem can be efficiently modeled as a graph where the nodes represent the destinations and the edges represent the relationship among them. With the help of signed graph the relationship between various destinations in a transportation network can be represented. The simplest approach to study such a group of destinations is to draw a graph in which the destinations are the nodes (or vertices) and there is an edge joining each pair of destinations who are related in some way. It can also be checked whether the graph is stable or unstable with the use of signed graph and balance theory.

Abstract

Signed graph can be used as a graph theoretic tool to study transportation problem. A transportation problem can be efficiently modeled as a graph where the nodes represent the destinations and the edges represent the relationship among them. With the help of signed graph the relationship between various destinations in a transportation network can be represented. The simplest approach to study such a group of destinations is to draw a graph in which the destinations are the nodes (or vertices) and there is an edge joining each pair of destinations who are related in some way. It can also be checked whether the graph is stable or unstable with the use of signed graph and balance theory.

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Index Terms

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Keywords
Signed graph  balanced theory  transport network  partitionable and non partitionable signed graphs.