

Abstract

Social cohesion is a bond that forms a community. Social cohesion can be found by looking at the distribution of cohesive subgroups. Cohesive subgroups is one of the mayor concern on social network analysis. Social network analysis using graphs as a representation of social network formed. Maximum independent set (MIS) as a one of graph problem solving, trying to solve the problem in the finding social cohesion in the social network. Graph that has been used is an undirected graph. Modified wilf algorithm is used to solve the problem of MIS for finding social cohesion. From test result obtained a set of nodes that form a social cohesion. Furthermore, size of social cohesion is affected by the level density of social network tested. In term of time and space complexity of the modified wilf algorithm, both of them are $O(n^2)$.

Keywords: maximum independent set, social cohesion, modified wilf