Abstract

The near common-neighborhood graph of a graph \(G\), denoted by \(\text{ncn}(G)\), is the graph on the some vertices of \(G\), two vertices being adjacent in \(\text{ncn}(G)\) if there is at least one vertex in \(G\) not adjacent to both of them. A graph is called near-common neighborhood graph if it is the near-common neighborhood of some graph. In this paper we introduce the near-common neighborhood of a graph, the near common neighborhood graph, near-completeness number of a graph, basic properties of these new graphs are obtained and interesting results are established.

References

2. A. Alwardi, N. D. Soner, Further results on the common neighbourhood domination and some related graphs, Advanced studies in contemporary mathematics, 24 (1) 2014), 19-32.

Index Terms

Computer Science

Applied Mathematics

Keywords

Near-common neighborhood graph (of graph), common neighborhood graph (of graph), Near-completeness number (of graph)