Abstract

In this paper the concept of connected edge monophonic domination number of a graph is introduced. A set of vertices M of a graph G is a connected edge monophonic domination set (CEMD set) if it is edge monophonic set, a domination set of G and the induced sub graph is connected. The connected edge monophonic domination number (CEMD number) of G, \( \gamma_{ce}(G) \) is the cardinality of a minimum CEMD set. CEMD number of some connected graphs are realized. Connected graphs of order n with CEMD number n are characterised. It is shown that for every pair of integers m and n such that 3 \leq m \leq n, there exist a connected graph G of order n with \( \gamma_{ce}(G) = m \). Also, for any positive integers p,q and r there is a connected graph G such that m(G) = p,m
\( \infty \) (G) = q and \( \gamma_{ce}(G) = m \).
Connected Edge Monophonic Domination Number of a Graph

m


(3) γ_m^c(G) = r. Again, for any connected graph G, γ_m^c(G) lies between n/(1+∆(G)) and n.

References

4. F.Buckley, and F.Harary. Distance in Graphs, Addition Wesley, Redwood City, CA (1990):

Index Terms

Computer Science  
Against Mathematics  

Edge monophonic number, monophonic domination number, edge monophonic domination number, connected edge monophonic domination number.