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## EQUITABLE DOMINATING GRAPH

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## Abstract

The equitable dominating graph  $E_qD(G)$  of a graph G = (V, E) is the graph with vertex set  $V \cup D$ , where D is the set of all minimal equitable dominating sets of Gand with two vertices  $u, v \in V \cup D$  adjacent if  $u \in V$  and v is a minimal equitable dominating set of G containing u. In this paper, we initiate a study of equitable dominating graph and establish necessary and sufficient conditions for  $E_qD(G)$  to be connected and eulerian.

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 ${\rm Key\ Words}:\ Dominating\ set,\ Equitable\ dominating\ set,\ Equitable\ dominating\ graph.$ 

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