Abstract

A Connected graph $G$ is a Hamiltonian laceable if there exists in $G$ a Hamiltonian path between every pair of vertices in $G$ at an odd distance. $G$ is a Hamiltonian-$t$-Laceable (Hamiltonian-$t^*$-Laceable) if there exists in $G$ a Hamiltonian path between every pair (at least one pair) of vertices at distance $t$ in $G$. $1 \leq t \leq \text{diam} G$. In this paper we explore the Hamiltonian-$t^*$-laceability number of graph $L(G)$ i.e., Line Graph of $G$ and also explore Hamiltonian-$t^*$-Laceable of Line Graphs of Sunlet graph, Helm graph and Gear graph for $t=1,2$ and $3$.

References


**Index Terms**

Computer Science  
Applied Mathematics

**Keywords**

Connected graph  
Line graph  
Sun let graph  
Helm graph  
Wheel graph  
Gear graph and Hamiltonian-t-laceable graph.