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
- Hamiltonian-t-laceable graph.