Abstract

Let $N_0$ denote the set of all non-negative integers and $X$ be any subset of $X$. Also denote the power set of $X$ by $P(X)$. An integer additive set-labeling (IASL) of a graph $G$ is an injective function $f : V(G) \rightarrow P(X)$ such that the induced function $f^+ : E(G) \rightarrow P(X)$ is defined by $f^+(uv) = f(u) + f(v)$, where $f(u) + f(v)$ is the sumset of $f(u)$ and $f(v)$. An IASL $f$ is said to be a topological IASL (Top-IASL) if $f(V(G)) \cup f;g$ is a topology of the ground set $X$. An IASL is said to be an integer additive set-graceful labeling (IASGL) if for the induced edgefunction $f^+$, $f^+(E(G)) = P(X) \cup f;f_0g$. In this paper, we study certain types of IASL of a given graph $G$, which is a topological integer additive set-labeling as well as an integer additive set-graceful labeling of $G$.

References


**Index Terms**

Computer Science  
Applied Mathematics
Keywords

Integer additive set-labeled graphs, integer additive set-graceful graphs, topological integer additive set-labeled graph, topological integer additive set-graceful labeling of graphs