

# Performance On Topological Cordial Graphs

NishatEqbal<sup>1</sup>, Dr. Pratibha Sharma<sup>2</sup>

<sup>1</sup>Research Scholar, Research department of Mathematics, Istanbul Technical University. India.

<sup>2</sup>(Assistant Professor, Department of Mathematics, Istanbul Technical University.India.

**Abstract:** B.D. Acharya [3] introduced the documentation of set - valuation as set basic of number valuation as introduced by A. Rosa [5]. For a  $(p, q)$  outline  $G = (V, E)$  and a non-void set  $X$  of cardinality  $n$ . Acharya described set indexer of  $G$  as an injective set-regarded capacity  $f: V(G) \rightarrow 2X$  so much that the ability  $f^*: E(G) \rightarrow 2X - \{\phi\}$  portrayed by for every  $f^*(v_1v_2) = f(v_1) \Delta f(v_2)$  for each  $v_1v_2 \in E(G)$  is moreover injective, where  $2X$  is the set of all subsets of  $X$  and  $\Delta$  is the symmetric difference of sets. For a graph  $G$ , there exist a set-indexer  $f: V(G) \rightarrow 2X$  so much that the family  $f(V)$  is a geology on  $X$ . An outline  $G = (V, E)$  should be a bitopological chart if there exist a set indexer  $f: V(G) \rightarrow 2X$  so much that  $f(V)$  and  $f^*(E) \cup \{\phi\}$  are the two topographies on the relating groundset. Let  $G$  be a graph. Define  $f: (G) \rightarrow 2X$  such that  $\{f(V(G))\}$  is a topography where  $X$  is any set with  $|X| < n$ , number of vertices of  $G$ . The incited ability  $f^*$  on  $E(G)$  is portrayed by 1 if  $(u) \cap (v)$  is not an empty set and singleton set  $f^*(uv) = f(u) \cap f(v) = \{0\}$  if  $f(u) \cap f(v)$  is an empty and singleton set. Further,  $|0 - ef(1)| \leq 1$  where  $ef(0)$  = number of edges set apart with 0 and  $ef(1)$  = number of edges named with 1. We say that  $f$  is a topological merry naming and an outline which yields such a checking is called topological warm graph. In this paper we proved Gortzsch graph, vertex trading of cycle  $C_n$ , Bow diagram, David's Star outline are topological cordial graph.

**Key words:** Gortzsch outline, vertex trading of cycle  $C_n$ , Bow graph, David's Star chart and topological ardent graph.

## I. Introduction

The outlines treated in this paper are direct. For standard expressing and documentations we keep F. Harary [4]. Given an outline  $G = (V, E)$ , we can relate it to different topological plans. The association among topography and graph speculation is gone through various assessments. In 1983 Acharya [3] spread out another association between graph speculation and point - set topography. He portrayed a set - indexer, Let  $G = (V, E)$  be an outline,  $X$  any non - void set and  $2X$  mean the plan of all subsets of  $X$ . A set - indexer of  $G$  is an injective set regarded capacity  $f: V(G) \rightarrow 2X$  such that the started ability  $f^*: E(G) \rightarrow 2X - \{\phi\}$  described by  $f^*(v_1v_2) = f(v_1) \Delta f(v_2)$  for each  $v_1v_2 \in E(G)$  is in like manner injective,

## II. Topological cordial labeling of cycle related graphs

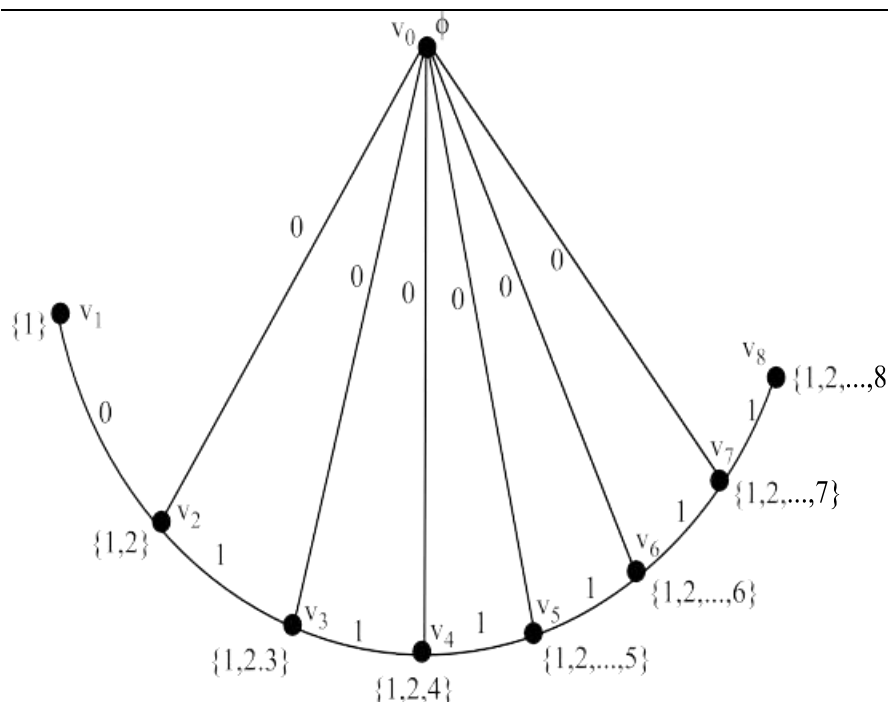
**Definition 2.1** Let  $G$  be a diagram. Portray  $f: (G) \rightarrow 2X$  such that  $\{f(V(G))\}$  is a topography where  $X$  is any set with  $|X| < n$ , number of vertices of  $G$ . The activated ability  $f^*$  on  $E(G)$  is described by

1 if  $(u) \cap (v)$  is not an empty set and singleton set

$f^*(uv) = f(u) \cap f(v) = \{0\}$  if  $f(u) \cap f(v)$  is a void and singleton set.

Further,  $|0 - ef(1)| \leq 1$  where  $ef(0)$  = number of edges set apart with 0 and  $ef(1)$  = number of edges named with 1. We say that  $f$  is a topological warm checking and a graph which surrenders such a naming is called topological cordial graph.

**Speculation 2.4** A vertex trading of cycle  $C_n$  ( $VSC_n$ ) is a topological earnest diagram for all  $n \geq 3$ .



### Conclusion

In this paper oversees topological true charts. The mark of this paper is to make a progress to an unrivaled perception of topological pleasant labeling. The following open issue is considered for the future work. 1. What is the topological warm naming of way related graphs. 2. What is the topological inviting checking of Franklin outline.

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