

INTUITIONISTIC FUZZY DIVISOR CORDIAL GRAPH

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Abstract:- In this paper we introduce the concept of Intuitionistic fuzzy divisor cordial labeling. A graph with Intuitionistic fuzzy divisor cordial labeling is called Intuitionistic fuzzy divisor cordial graph. As part of this paper we proved path, cycle, star graph and wheel graph are Intuitionistic fuzzy divisor cordial graphs.

Key word: Intuitionistic Fuzzy Divisor Cordial Graph

1 Introduction

Intuitionistic Fuzzy is a newly emerging mathematical framework to deal uncertainty. In 1975, Rosenfield introduced the concept of fuzzy graph. As an extension of fuzzy graph Sovan and Atanassov introduced the concept of Intuitionistic fuzzy graph. One of the most important area in graph theory is graph labeling, which have been introduced so far and many researchers are still working on it. It has wide applications within Mathematics as well as to several areas of computer science and communication networks. M. Sumathi and A. Agwin Charles introduced Fuzzy divisor cordial graph [1]. Motivated by Fuzzy divisor cordial labeling of graphs, we introduced the concept of Intuitionistic fuzzy divisor cordial graph through this paper.

This paper is structured as: Section 2, contains basic definitions that are required for the succeeding section. In Section 3, we introduce Intuitionistic fuzzy divisor cordial graph, and some theorems based on it, and section 4 concludes the paper.

2 Basic Definitions

Definition 2.1 [2]

A graph labeling is the assignment of unique identifiers to the edges and vertices of a graph.

