

**A STUDY ON STRONGLY PSEUDO IRREGULAR  
NEUTROSOPHIC BIPOLAR FUZZY GRAPH**

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**Abstract:** The concepts of strongly pseudo irregular neutrosophic bipolar fuzzy graphs, strongly pseudo totally irregular neutrosophic bipolar fuzzy graphs are introduced and some theorems are discussed in this paper.

**Keywords and Phrases:** Strongly pseudo irregular neutrosophic bipolar fuzzy graph, strongly pseudo totally irregular neutrosophic bipolar fuzzy graph.

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**1. Introduction and Basic Definitions**

Fuzzy Graphs was introduced by Rosenfeld in [4]. Nasir Shah and S. Broumi introduced Irregular Neutrosophic Graphs in [5]. G. Divya and J. Malarvizhi introduced some operations on neutrosophic fuzzy graph [1]. Strongly Pseudo Irregular fuzzy graph was introduced by N. R. Santhi Maheswari and M. Rajeswari [2]. N. R. Santhi Maheswari and D.Subburaj introduced Neighbourly pseudo irregular neutrosophic bipolar fuzzy graph [3]. These idea influence us to introduce strongly pseudo irregular neutrosophic bipolar fuzzy graphs. A neutrosophic fuzzy graph (NF graph) with underlying set  $V$  is defined to be a pair  $N_G = (A, B)$ , where