South East Asian J. of Mathematics and Mathematical Sciences
Vol. 17, Proceedings (2021), pp. 59-68

ISSN (Online): 2582-0850

ISSN (Print): 0972-7752

NEIGHBOURLY PSEUDO IRREGULAR NEUTROSOPHIC FUZZY GRAPHS

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(**Received:** *Aug. 08, 2021* **Accepted:** *Oct. 01, 2021* **Published:** *Nov. 30, 2021)*

Special Issue
Proceedings of International Virtual Conference on
"Mathematical Modelling, Analysis and Computing IC- MMAC- 2021"

Abstract: The idea of pseudo regular and irregular N_G(N_G - Neutrosophic Fuzzy Graph), neighbourly pseudo irregular N_G are made known here. We represent some theorems and results of these graphs.

Keywords and Phrases: Pseudo regular and irregular N_G(N_G - Neutrosophic Fuzzy Graph), neighbourly pseudo irregular N_G.

2020 Mathematics Subject Classification: 05C78.

1. Introduction and Preliminaries

Divya and J. Malarvizhi introduced the notions and fundamental operations on neutrosophic fuzzy graph [1]. S. Sivabala and N. R. Santhi Maheswari introduced Neighbourly and highly irregular neutrosophic fuzzy graph [3]. These ideas encourage us to introduce Neighbourly pseudo irregular neutrosophic fuzzy graphs.

Definition 1.1. *"A neutrosophic fuzzy graph with underlying set V is defined to be a pair $N_G = (A, B)$, where*
(i) The functions $T_A, I_A, F_A : V \to [0, 1]$ denote the degree of truth membership, degree of indeterminacy membership and the degree of falsity membership of the element $v_i \in V$ respectively and $0 \leq T_A(v_i) + I_A(v_i) + F_A(v_i) \leq 3$.
(ii) $E \subseteq V \times V$ where the functions $T_B, I_B, F_B : V \times V \to [0, 1]$ are defined by