

**NANO WEAKLY $g\#$ CLOSED MAPS AND NANO WEAKLY $g\#$
OPEN MAPS IN NANO TOPOLOGICAL SPACES**

P. Kalaivani and R. Nithyakala

Department of Mathematics,
Vidyasagar College of Arts And Science,
Udumalpet, Tirupur, Tamil Nadu, INDIA

E-mail : kalaiudt6@gmail.com, nithyaeswar11@gmail.com

(Received: Feb. 09, 2024 Accepted: Aug. 20, 2024 Published: Aug. 30, 2024)

Abstract: The Nano Weakly $g\#$ open set is one of the stronger form of nano topological spaces. In this article we introduce the concept of Nano Weakly $g\#$ open maps and Nano Weakly $g\#$ closed maps in Nano topological spaces and investigate their neighbor maps such as $N\alpha$ open map, $N\alpha g$ open map, $Ng\alpha$ open map, Nsg open map and Ngs open map and their respective nano closed maps in nano topological spaces. Also we analyze some of their related properties.

Keywords and Phrases: $NWg\#$ open set, $NWg\#$ closed set, $NWg\#$ continuous function, $NWg\#$ open map, $NWg\#$ closed map.

2020 Mathematics Subject Classification: 54C05.

1. Introduction

In 2013 Lellis Thivagar and Carmel Richard [4] had introduced nano closed maps, nano open maps and nano homeomorphisms in nano topological spaces. In 2016 Bhuvanewari. K and Ezhilarasi. A [1] introduced Nsg closed maps, Nsg open maps in nano topological spaces. In 2017 Sathish Mohan. M, Rajendran. V, Devika. A and Vani. R [8] introduced nano semi open maps and nano semi closed maps in nano topological spaces. After that 2020 Mythili Gnanapriya. K and Bhuvanewari. K [5] introduced Nano g closed maps, Nano g open maps in nano topological spaces. In 2020 Sulochana Devi. P and Bhuvanewari. K [9] defined Nano regular generalized closed maps in nano topological spaces. This