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$\alpha gs\gamma-$CONTINUOUS FUNCTIONS AND $\alpha gs-(\gamma_1,\gamma_2)-$CONTINUOUS FUNCTIONS

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Abstract: In this paper, we introduce and define $\alpha gs\gamma-$continuous functions and $\alpha gs-(\gamma_1,\gamma_2)-$continuous functions. Also, we obtain interrelation for the defined functions and analyse their properties.

Keywords and Phrases: Operation on $\alpha gs-$open sets, $\alpha gs\gamma-$open sets, $\alpha gs\gamma-$continuous, $\alpha gs-(\gamma_1,\gamma_2)-$continuous.

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1. Introduction

A continuous function exhibits no abrupt shifts or discontinuities and produces a steady variation in the output when the input varies smoothly. This fundamental concept underpins various areas in topology and its applications. Topology provides foundational notions for areas of mathematics that require a robust understanding of continuity. The concept of continuity and open sets plays a pivotal role in topology and its applications. Extending these ideas through operation γ enriches the theoretical framework and offers insights into more generalized structures, which can be applied to diverse fields like fuzzy topology, decision theory, and computational models.

The study of operation approach in topological spaces began with Kasahara [11], followed by Ogata [18], who introduced and analysed $\gamma-$open sets in such spaces. Sanjay Tahiliani [20] further defined $\beta-\gamma-$open sets by applying the γ operation