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NEW FUZZY BIOPERATIONS OPEN SETS ON FUZZY TOPOLOGICAL SPACE

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Abstract: In this paper, we defined a new fuzzy bioperation-open sets and a new fuzzy bioperation-closures. We also studied some properties of these notions.

Keywords and Phrases: Fuzzy γ-open set,fuzzy (γ, γ')-open set , fuzzy (γ, γ')-closed sets and fuzzy (γ, γ')-closure.

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1. Introduction

Let (X, τ) be a topological space. An operation γ on the topology τ is a mapping from τ into the power set P(X) of X such that V $\subseteq \gamma$(V) for each V $\in \tau$. The study of this concept was initiated by S. Kasahara [4]. S. Kasahara unified several known characterisations of compact space, nearly compact spaces, and H-closed spaces by introducing a certain operation on a topology. After kasahara, D. S. Jankovic [2] defined the concept of operation closure and investigated some properties of function with operationγ-closed graphs. Moreover, H. Ogata [6] defined the notion γ-open sets and introduced some new separation axioms. After that H. Maki, T. Nori, J. umehara, H. Ogata [5, 7] generalized the notion of γ operation-open sets to bioperations and defined bioperation-closure. With these references, N. R. Das and B. kalita. developed fuzzy operation γ [3] on fuzzy topological space. By using a fuzzy operation γ on fuzzy topological space (X, τ), the author introduced the