FUZZY gp*-CLOSED SETS IN FUZZY TOPOLOGICAL SPACE

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Abstract: In this paper fuzzy gp*- closed sets, fuzzy gp* continuous functions, fuzzy gp*-irresolute functions, fuzzy gp*-connectedness and fuzzy T*gp-space are introduced and also their relation with some other fuzzy sets and some of their properties are investigated.

Keywords and Phrases: Fuzzy topological spaces; fuzzy gp*-closed sets; fuzzy gp* continuous functions and fuzzy gp*-irresolute functions; fuzzy gp*-open sets; fuzzy T*gp-space.

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1. Introduction

Fuzzy set theory as introduced by Lotfi A. Zadeh [1] in 1965 is the expansion of the classical set theory and it expanded the basic definition of the classical or crisp sets. So fuzzy mathematics is just a kind of mathematics developed in this framework and fuzzy topology introduced by C.L Chang [2] in 1968 is the generalization of ordinary topology in classical mathematics. Since the introduction of fuzzy sets and fuzzy topological spaces, work started taking place at a good rate in this field of mathematics and various types of fuzzy sets were introduced and studied by various researchers, Like S.S Benchalli and G.P.Siddapur introduced fuzzy g* pre continuous maps[3], Hamid Reza Moradi and Anahid Kamali introduced fuzzy strongly g* -closed sets and g**-closed sets in 2015 [4], And almost all the mathematical, engineering, medicinal etc concepts have been redefined using fuzzy theory and it has further deepened the understanding of basic set theory.