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FUZZY TOPOLOGICAL PROPERTIES OF SPACES AND FUNCTIONS WITH RESPECT TO THE $frwg$-CLOSURE OPERATOR

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Abstract. We study the $frwg$-closure operator in fuzzy topological space, investigating the corresponding notions of regular, normal, compact, T_2-space and various classes of functions-closed, open, continuous, irresolute, strongly continuous, weakly continuous. We establish connections between the above mentioned properties of functions and the properties of fuzzy topological spaces.

1. Introduction

This paper deals with fuzzy regular weakly generalized closed set ($frwg$-closed set, for short) defined in [9]. In this paper we have shown some important properties of this set. Also the mutual relationship of this set with the sets defined in [2, 3, 5, 6, 7, 9, 11, 12] are established. Using this set as a basic tool, here we introduce $frwg$-closure operator which is seen to be an idempotent operator. It is also shown that $frwg$-closure operator of a fuzzy set is not an $frwg$-closed set.

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