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fmg-CLOSED SETS IN FUZZY TOPOLOGICAL SPACES

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Abstract. After the introduction of a fuzzy generalized version of closed set in [2, 3], different types of generalized versions of fuzzy closed sets have been introduced and studied. In this context, we have to mention [3, 5, 6, 7, 8, 9, 10, 11]. In this paper we study the notion of fmg-closed set, which was introduced in [9].

1. Introduction

This paper deals with the notion of fmg-closed set in fuzzy topological spaces, which was introduced in [9]. Using this concept as a basic tool, we introduce here the nption of fmg-closure operator, which is an idempotent operator. Then we establish some properties of this set operator and afterwards, the mutual relationships of this operator with the operators defined in [3, 5, 6, 7, 8, 9, 11, 12] are established. Next we introduce and characterize the notions of fmg-open function and fmg-closed function using the fmg-closure operator and we establish the mutual relationships of these two new types of functions with the functions defined in [3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16].

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