

**MILDLY  $\alpha$  GENERALIZED CLOSED SETS AND ITS CLOSED MAPPINGS**

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**Abstract:** In this paper, we define new types of closed sets called mildly  $\alpha$  generalized closed sets and mildly  $\alpha$  generalized closed mappings and study some of their properties. The relations with other notions directly or indirectly connected with mildly  $\alpha$  generalized closed sets are investigated.

**Keywords and Phrases:** Mildly  $\alpha$  generalized closed sets, closed mappings.

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### 1. Introduction and Preliminaries

In 1970, N. Levine [8] introduced the concept of generalized closed sets in the topological space by comparing the closure of subset with its open supersets. The investigation on generalization of closed set has lead to significant contribution to the theory of separation axioms, covering properties and generalization of continuity. Kong et.al [6] shown some of the properties of generalized closed set have been found to be useful in computer science and digital topology. A. S. Mashhour et.al [13], M. Sheik John [22], J. K. Park et.al [17], Benchalli and Walli [3] introduced preclosed sets, weakly closed sets, mildly  $g$ -closed sets and  $rw$ -closed sets