

## A NOTE ON SOFT IDEALS AND SOFT FILTERS IN TERNARY SEMIGROUPS WITH INVOLUTION

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### Abstract

The main purpose of this paper is to provide an effective content of theory of ternary semigroups with involution by applying soft set theory concepts. In this paper, we introduce some basic terms and definitions of different ideals in ternary semigroups with involution. Further, we define soft ideals and soft filters in ternary semigroups with involution, and show how a soft set effects on a ternary semigroup with involution with the help of intersection and insertion of sets. We explore some properties using involution theoretic concepts in ternary semigroups for soft ideals and soft filters.

**Keywords:** ternary semigroups with involution, soft ideals, soft filters.

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