

ABSTRAK

Suatu *KS*-semigrup merupakan struktur aljabar yang dilengkapi dengan dua operasi biner dan memenuhi aksioma-aksioma yaitu *BCK*-aljabar, semigrup, dan bersifat distributif kiri dan distributif kanan. Dengan menerapkan teori himpunan fuzzy dan teori ideal pada proses fuzifikasi didapat *KS*-semigrup fuzzy. Teori himpunan fuzzy dapat diimplementasikan menjadi sub *KS*-semigrup fuzzy jika dibentuk himpunan bagian fuzzy $\mu : X \rightarrow [0,1]$ dan aspek-aspek pada teori ideal dibahas mengenai *KS*-ideal fuzzy dan *KS*-*p*-ideal fuzzy.

Kata kunci : *KS*-semigrup, himpunan fuzzy, teori ideal.

ABSTRACT

A *KS*-semigroup an algebraic structure equipped with two binary operations and fulfills certain axioms is *BCK*-algebra, semigroup, and they have distributive left and right characteristics. By applying the fuzzy set theory and the ideal theory on the fuzzification can be obtained the *KS*-semigroup. The fuzzy set theory can be implemented into the fuzzy sub *KS*-semigroup if fuzzy subsets formed $\mu : X \rightarrow [0,1]$ and aspects of the ideal theory discussed in the fuzzy *KS*-ideal and fuzzy *KS*-p-ideal.

Keywords: *KS*-semigroup, fuzzy set theory, ideal theory.