

## **S- $\alpha$ FUZZY SEMIGROUPS**

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### **Abstract**

The concept of  $S$ - $\alpha$  fuzzy semigroups of an  $S$ -semigroup is introduced and their characterizations are obtained.  $S$ - $\alpha$  fuzzy left, fuzzy right cosets and  $S$ - $\alpha$  fuzzy normal subsemigroups are defined and some equivalent conditions on  $S$ - $\alpha$  fuzzy normal subsemigroup are proved.

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Key Words :  $S$ -semigroup, fuzzy group,  $S$ -fuzzy semigroup,  $\alpha$ -fuzzy set,  $\alpha$ -fuzzy group, Fuzzy semi-group.

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