

CUBIC GENERALIZED BI-IDEALS IN SEMIGROUPS

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Abstract

In this paper, the concept of a cubic generalized bi-ideal in a semigroup is introduced, which is a generalization of the concept of a fuzzy generalized bi-ideal and interval-valued fuzzy generalized bi-ideal. Using this concept some characterization theorems are provided. In particular, we characterize regular semigroups by using cubic generalized bi-ideals. We show how the images or inverse images of a cubic generalized bi-ideal of a semigroup become a cubic generalized bi-ideal.

Keywords: semigroups, left (right) ideals, generalized bi-ideal, bi-ideal, cubic left (right) ideal, cubic bi-ideal, cubic generalized bi-ideal.

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