INTISARI

BI-IDEAL PRIMA PADA SEMIGRUP TERNIER

Oleh

NOVA SETIAWAN

14/369610/PA/16396

Pada skripsi ini dibahas mengenai semigrup ternier yang merupakan generalisasi dari semigrup biner. Himpunan tak kosong S disebut semigrup ternier S jika dilengkapi operasi ternier $* : S \times S \times S \to S$ yang memenuhi sifat asosiatif yaitu untuk setiap $a, b, c, d, e \in S$ berlaku $(a*b*c)*d*e = a*(b*c*d)*e = a*b*(c*d*e)$. Kemudian akan dijelaskan sifat-sifat dasar mengenai semigrup ternier, semigrup ternier reguler, ideal pada semigrup ternier, quasi ideal, dan bi-ideal.Selain itu juga dikaji tentang hubungan antara quasi ideal dengan bi-ideal semigrup ternier. Pada bagian akhir, akan dibahas sebuah keluarga himpunan bi-ideal prima kuat yang membentuk topologi keluarga himpunan semua bi-ideal prima pada suatu semigrup ternier yang setiap bi-idealnya idempoten.

ABSTRACT

PRIME BI-IDEAL OF TERNARY SEMIGROUPS

By

NOVA SETIAWAN

14/369610/PA/16396

In this paper, we will discuss about ternary semigroups which is a generalization of binary semigroups. The nonempty set S is called ternary semigroups S if it is equiped with ternary operation $* : S \times S \times S \to S$ that fulfill asosiative properties that is for every $a, b, c, d, e \in S$ satisfies $(a*b*c)*d*e = a*(b*c*d)*e = a*b*(c*d*e)$. Then, will be described the basic properties of ternary semigroups, regular ternary semigroups, ideal in ternary semigroups, quasi ideal, and bi-ideal. Furthermore, It also studied about the relationship of quasi ideal and bi-ideal of ternary semigroups. At the end will be discussed a family of set of strongly prime bi-ideals which are formed a topology to family of set of all prime bi-ideal in ternary semigroups which is every its bi-ideals are idempotent.