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Marshal Imeh Sampson* (bravemarshal@yahoo.com), P.M.B. 1167, Uyo, Akwa Ibom 520261, Nigeria, and **Gabriel Otobong Udoaka**. *Alternative Method for Computing Rank of a Semigroup*.

The computation of rank of semigroup S has been discretely done for some semigroups. However, the computation is generally a tedious task. A new computational technique for rank of some semigroup is presented. The technique is based on matrix representation and simplifies the computational efforts encountered using direct definition technique of computing ranks. The importance of this idea for the study of abstract groups seems to depend on the fact that group-theoretical calculations are easier to carry out in groups of matrices than in abstract groups. Its effectiveness is demonstrated in the computation of the rank of certain transformation semigroup, Brandt semigroup, symmetry semigroup (S3), Dihedral group (D4), monogenic semigroup and the inverse semigroup. (Received November 12, 2016)