Subclasses of Partial Contraction Mapping and generating evolution system on Semigroup of Linear Operators

<u>Kamilu Rauf</u> University of Ilorin, Ilorin, Nigeria krauf@unilorin.edu.ng

Akinola Yussuff Akinyele University of Ilorin, Ilorin, Nigeria olaakinyele040gmail.com

Some properties of C_0 -Semigroup are investigated and used to derive properties of ω -Order Preserving and Reversing Partial Contraction Mapping where homogeneous, inhomogeneous and regularity of mild solution for analytic semigroups are engaged. Furthermore, the subclasses performed like semigroup of linear operators. Moreover, semigroup of linear operator generated by ω -order reversing partial contraction mapping (ω -ORCP_n) as the infinitesimal generator of a C_0 -semigroup is discussed. It is an attempt to obtain results on evolution systems and stable families of generators considering the homogeneous and inhomogeneous initial value problem.