



Jasbir Singh MANHAS (manhas@squ.edu.om), Department of Mathematics and Statistics, Sultan Qaboos University, Muscat, Sultanate of Oman, *Multiplication Operators on Weighted Locally Convex Spaces of Vector-Valued Analytic Functions.*

ABSTRACT. Let  $V$  be an arbitrary system of weights on an open connected subset of  $n$ -dimensional complex space and let  $B(E)$  be the Banach algebra of all bounded linear operators on a Banach space  $E$ . Let  $HVb(G, E)$  and  $HV0(G, E)$  be the weighted locally convex spaces of vector-valued holomorphic functions with topology generated by seminorms which are weighted analogues of the supremum norm. In the present paper, we characterize the operator-valued holomorphic functions from  $G$  into  $B(E)$  which generate multiplication operators and invertible multiplication operators on the spaces  $HVb(G, E)$  and  $HV0(G, E)$  for different systems of weights  $V$  on  $G$ . Also, we obtained a linear dynamical system associated with these multiplication operators.