

1125-90-1566

Sabyasachi Pani* (spani@iitbbs.ac.in), Indian Institute of Technology Bhubaneswar, Bhubaneswar, Odisha 751024, India, and **Bijaya Kumar Sahu** (bks10@iitbbs.ac.in), Indian Institute of Technology Bhubaneswar, Bhubaneswar, Odisha 751024, India. *Extended Complementarity Problems.*

In this paper we define an extended generalized complementarity problem in a locally convex, Hausdorff, vector-topological space and show that, the extended generalized complementarity problem is equivalent to a generalized variational inequality problem. We prove an existence result of complementarity problem in this setting and observed that many of the known results follow from it. Finally we give an existence result for this problem in finite dimensional case under the assumption that the function is strongly K-copositive. (Received September 18, 2016)