ABSTRACT

Some generalizations of nonlinear variational inequality problem in reflexive real Banach spaces and Hausdorff topological vector spaces are presented; also a nonlinear complementarity problem is studied under moderate assumptions. In H-space an inequality is established and the traditional variational and variational-type inequalities are obtained as particular cases of the inequality. Generalized versions of nonlinear random variational inequality and complementarity problem in Banach spaces and Hilbert spaces are also presented.