

Mixed vector equilibrium problem involving multi-valued mapping

ABSTRACT

In this paper, we consider and study a mixed vector equilibrium problem involving multi-valued mapping in a Hausdorff topological vector space. We prove some existence results for mixed vector equilibrium problem involving multi-valued mapping using KKM theorem, the concept of coercing family for multi-valued mappings and core of a set. The problem of this paper is a combination of a vector equilibrium problem and a vector variational inequality problem and is more general than many existing problems available in the literature.

Keyword: Equilibrium problem; Variational inequality; Vector; Generalized KKM theorem; Core; Coercing family