Dissertation Title	Iterative Methods for Approximating Common Solutions of Systems of Equilibrium Problems and Systems of Variational Inequalities
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Abstract

The purposes of this dissertation are to construct new iterative algorithms for the fixed point approximation of nonexpansive mappings, and to solve many mathematical problems in a real Hilbert space. In this dissertation, we propose the proof of convergence theorems of iterative approximation method for finding the common element of (1) the set of common fixed points of nonexpansive, strict pseudocontractions and Lipschitz continuous mappings; (2) the set of variational inequality problems and variational inclusion for nonlinear mappings; and (3) the set of solutions of an equilibrium problem in a real Hilbert space. Moreover, the supplementary applications involving optimization problems are also obtained by using the results from our convergence theorems.

Keywords : Equilibrium Problem / Fixed Point / Hilbert Space / Nonexpansive Mapping / Strong Convergence / Variational Inclusion / Variational Inequality