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GENERAL VISCOSITY METHODS FOR SOLVING EQUILIBRIUM PROBLEMS, VARIATIONAL INEQUALITY PROBLEMS AND FIXED POINT PROBLEMS INVOLVING A FINITE FAMILY OF MULTIVALUED STRICTLY PSEUDO-CONTRACTIVE MAPPINGS

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Abstract. In this paper, we propose a new hybrid iterative scheme for finding a common element of the set of solution of equilibrium problem, the set of solution of variational inequality problem and the set of common fixed points of a finite family of multivalued strictly pseudo-contractive mappings in a Hilbert space. Then strong convergence of the scheme to a common element of the three sets is proved. Furthermore, new convergence results are deduced and finally, we apply our results to optimization problems and variational inequality problems involving monotone mappings.

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