ON CONVERGENCE ANALYSIS OF AN ITERATIVE ALGORITHM FOR FINDING COMMON SOLUTION OF GENERALIZED MIXED EQUILIBRIUM PROBLEMS AND FIXED POINT PROBLEMS

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Abstract. The purpose of this paper is to investigate nonemptiness of the solution set for generalized mixed quasi-equilibrium problems and investigate the asymptotic behavior of an iterative algorithm for finding common solution of generalized mixed equilibrium problems and fixed point problems of asymptotically nonexpansive mappings under mild conditions of iteration parameters. Our results improve and extend the recent known results of equilibrium problems, variational inequalities and fixed point theory.


Keywords and phrases: $\eta$-strongly monotone, asymptotically nonexpansive mapping, contraction mapping, equilibrium problem, fixed points, generalized set-valued strongly nonlinear mixed variational inequality, iterative methods, KKM-mapping, iterative algorithm.

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