# A NEW ITERATIVE APPROACH FOR SOLVING GENERALIZED EQUILIBRIUM AND FIXED POINT PROBLEMS WITH NONLINEAR MAPPINGS

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ABSTRACT. In this paper, a new iterative scheme for finding a common element of the set of common fixed points of an infinite family of quasi-nonexpansive mappings, the set of fixed point of demicontractive mapping and the set of solutions of a generalized equilibrium problem is constructed. Convergence theorems are also proved in Hilbert spaces without any compactness assumption. Our theorems are significant improvements in several important recent results.

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