

## NEW ITERATIVE APPROXIMATION FOR A SYSTEM OF GENERALIZED NONLINEAR VARIATIONAL INCLUSIONS WITH SET-VALUED MAPPINGS IN BANACH SPACES

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*Abstract.* In this paper, we introduce and study a new system of generalized nonlinear variational inclusions involving generalized  $m$ -accretive mappings. By using the resolvent operator technique for generalized  $m$ -accretive mapping due to Huang and Fang [10], we also prove the existence theorems of the solution and convergence theorems of the generalized Mann iterative procedures with mixed errors for this system of variational inclusions in  $q$ -uniformly smooth Banach spaces.

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