

Strong Convergence of an Iterative Sequence in Real Banach Spaces with Kadec Klee Property

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Abstract : Let E be a uniformly smooth and uniformly convex real Banach space and C be a nonempty, closed and convex subset of E . Let $V = \{S_i : C \rightarrow C, i=1, 2, 3, \dots, N\}$ be a convex set of relatively nonexpansive mappings containing identity. In this paper, an iterative sequence obtained from CQ algorithm was shown to have strongly converge to a point \hat{x} which is a common fixed point of relatively nonexpansive mappings in V and also solve the system of equilibrium problems in E . The result improve some existing results in the literature.

Keywords : relatively nonexpansive mappings, strong convergence, equilibrium problems, uniformly smooth space, uniformly convex space, convex set, kadec klee property

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020