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**Dr. nihar kumar mahato\*** (nihariitkgp@gmail.com), IIITDM Jabalpur, P.O. : Khamaria, Jabalpur, M. P. 482 005, India. *Equilibrium Problems, multi-valued, variational-like inequalities.*

In this presentation, we establish the existence and uniqueness solutions of a generalized mixed equilibrium problem (in short, (GMEP)) using the generalized relaxed  $\eta$ - $\alpha$ -monotonicity in Banach spaces. We also present a hybrid iteration scheme by the generalized  $f$ -projection operator to find a common element of the solutions of the (GMEP) and the set of fixed points of an infinite family of quasi- $\phi$ -nonexpansive mappings in a uniformly smooth and uniformly convex Banach space. Moreover, the strong convergence of the newly proposed method under generalized relaxed  $\eta$ - $\alpha$ -monotonicity is considered. (Received August 11, 2014)