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GENERALIZED H- RESOLVENT EQUATION WITH $H-\phi-\eta$ ACCRETIVE OPERATOR

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Abstract: In this paper, we consider extended variational-like inclusion problem (for short EVLIP) which contains many known variational inclusions existing in literature. In connection with EVLIP we consider a generalized resolvent equation problem with H-ϕ-η-accretive operator called generalized H-resolvent equation problem (for short H-REP). To compute the approximate solution of H-REP, we introduce an algorithm. Convergence of sequences procreated by algorithm are also studied.

Keywords and Phrases: Extended Variational-Like Inclusion, Resolvent Operator, Generalized H-Resolvent Equation, Algorithm, Convergence.

2010 Mathematics Subject Classification: 49J40, 47J20, 47H06, 49J53.

1. Introduction, Notations, Definitions and Known Results

In past years, generalized forms of variational inequalities, variational inclusions and variational-like inclusions, have been expansively studied and extended in different directions to study the practical problems arising in optimization, economics, finance, applied science etc. See, for example [1, 3-6, 10, 12-19, 24] and references therein. As we all know that, develop an adept iterative algorithm for approximation solution of variational inclusions is most interesting aspect of variational inclusion theory. It is well known that projection method and Wiener-Hopf equation can not be improved to solve nonlinear variational inequalities and variational inclusions. Then resolvent operator technique is strategic and useful for