

Abstract

The proximal point scheme has a great role to find zeroes of maximal monotone operator, metric projection point, fixed point and common fixed point in Hilbert space. It is well known that the metric projection mapping plays important role in fixed point theory, optimization theory, variational inequality problem and games theory. In this thesis some preliminaries about types of nonlinear mapping and metric projection are presented also a proximal point schemes by using sequence of contraction, non-expansive, non-spreading and k -strictly pseudo non-spreading mappings are given and the convergence (weak and strong) to solutions of variational inequalities, metric projection points, fixed points and common fixed points of these mappings are studied.