1116-49-2090 **Akhtar A. Khan*** (`aaksma@rit.edu`), Center for Applied and Computational Mathemat, School of Mathematical Sciences, Rochester, NY , and **Dumitru Motreanu**. *Existence Theorems for Elliptic and Evolutionary Variational and Quasi-Variational Inequalities.*

This talk gives new existence results for elliptic and evolutionary variational and quasi-variational inequalities. Specifically, we give an existence theorem for evolutionary variational inequalities involving different types of pseudo-monotone operators. Another existence result embarks on elliptic variational inequalities driven by maximal monotone operators. We propose a new recessivity assumption that extends all the classical coercivity conditions. We also obtain criteria for solvability of general quasi-variational inequalities treating in a unifying way elliptic and evolutionary problems. Two of the given existence results for evolutionary quasi variational inequalities rely on Mosco-type continuity properties and Kluge's fixed point theorem for set-valued maps. We also focus on the case of compact constraints in the evolutionary quasi-variational inequalities. Here a relevant feature is that the underlying space is the domain of a linear, maximal monotone operator endowed with the graph norm. Applications are also given. (Received September 21, 2015)