Boubakari Ibrahimou\* (bibrahimou@murraystate.edu), Department of Mathematics & Statistics, Murray State University, Faculty Hall Room 6C, Murray, KY 42071. The Generalized Degree for Multifunctions Perturbations of Maximal Monotone Operators and Applications.

The main purpose of this paper is to develop a topological degree for mappings of the form T-G where T is a maximal monotone operator and G a multifunction of class (P) as extension of the degree for A-G developed by Chen where A is m-accretive. We first construct the degree for mappings of the form  $\lambda J + T - G$ . Next we construct the new topological degree and discuss some applications in mapping theorems. (Received September 19, 2009)