1116-34-1085   **Dimplekumar N Chalishajar*** (`dipu17370@gmail.com`), 1227 Landon Dr, Harrisonburg, VA 22801. *Trajectory Controllability of Nonlinear systems-An analytical and a Numerical Approach.*

New notion of control theory called Trajectory Controllability of first and second order nonlinear systems are studied using monotone operator theory and the techniques of functional analysis. Results are proved in finite and infinite dimension spaces. Examples are given to illustrate the theory. Finally numerical estimations are given to compare with analytical results. (Received September 16, 2015)