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Dimplekumar N Chalishajar* (dipu17370@yahoo.com), 417 Mallory Hall, Dept. of Applied Mathematics, Lexington, VA 24450. *Controllability of Second order Neutral Functional Differential Inclusion with Infinite Delay-A Theoretical and a Numerical Approach.*

In this short artical we have studied the sufficient condition for the exact controllability of second order neutral functional differential inclusion with infinite delay and impulsive terms using the techniques of fnctional analysis and monotone operator theory. We claim that the phase space considered by different authors are not correct. We have defined a new notion of phase space to prove the control result. An example is provided to illustrate the theory. Then we have used an abstract numerical technique to get the numerical aspect of the same problem which justifies theory also. (Received August 15, 2012)