

1035-34-751

**Aghalaya S Vatsala\*** ([Vatsala@Louisiana.edu](mailto:Vatsala@Louisiana.edu)), Department of Mathematics, University of Louisiana at Lafayette, Lafayette, LA 70504-1010. *Generalized Monotone Method for Functional Differential Equations with Retardation and Anticipation.*

Mathematical models of functional differential equations with retardation and anticipation occurs in business cycle with computational anticipated stock and also in anticipation of chaotic epidemic models. In this paper we develop the generalized monotone method for functional differential equations with retardation and anticipation to prove the existence of coupled extremal solutions. This is achieved when the forcing function is the sum of an increasing and decreasing functions. This will include the usual monotone method results as special cases. Further using uniqueness condition uniqueness results for functional differential equations involving retardation and anticipation are also established. (Received September 14, 2007)