Nonlinear Dynamics and Systems Theory, 7 (4) (2007) 431-438



Generalized Monotone Iterative Technique for Functional Differential Equations with Retardation and Anticipation

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Received: July 12, 2006; Revised: June 14, 2007

Abstract: The method of monotone iterative technique together with coupled lower and upper solutions is employed to prove the existence of coupled extremal solutions when the forcing function is the sum of an increasing and decreasing functions. This is referred to as generalized monotone method. 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.

Keywords: Generalized monotone method, equations with retardation and anticipation.

Mathematics Subject Classification (2000): 34C12, 34K05, 34K99.