Abstract

This paper presents the role of the nonlinear observer to estimate the state variable for the continuous Lotka-Volterra system. A theoretical frame is provided in order to show the convergence characteristics of the proposed observer under some satisfied assumptions. The proposed methodology is applied to a class of Lotka-Volterra systems with three species. Numerical simulations are shown to validate and demonstrate the effectiveness of the proposed high gain observer.

References


**Index Terms**

Computer Science

Algorithms

**Keywords**

Dynamic System  Lotka-Volterra Model  Hight Gain  Observer Design.