

1 Title :

Output feedback regulation of a class of stochastic nonlinear system via sampled-data control.

2 Abstract :

Output feedback regulation of nonlinear system has been one of the most active research topics in the fields of automatic control and robotics. This note investigates the problem of global output feedback regulation via sampled-data control for a class of uncertain nonlinear stochastic systems with unmeasurable states and unknown nonlinear functions. To solve the problem, we first construct a new sampled-data compensator and then use the domination approach and Lyapunov techniques to design a linear sampled-data controller. This controller guarantee the boundedness in probability of the all states of the closed-loop system and the mean square stability of regulated output.

Références

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