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Full Title of Your Paper

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ABSTRACT. *Please write down the abstract of your paper here....*

Keywords: Please write down the keywords of your paper here, such as, Intelligent information, System control

1. **Introduction.** Please write down the Introduction of your paper here....

2. **Problem Statement and Preliminaries.** Please write down your section. When you cite some references, please give numbers, such as, ... In the work of [1-3,5], the problem of... For more results on this topic, we refer readers to [1,4,5] and the references therein....

Examples for writing definition, lemma, theorem, corollary, example, remark.

Definition 2.1. *System (1) is stable if and only if...*

Lemma 2.1. *If system (1) is stable, then...*

Theorem 2.1. *Consider system (1) with the control law...*

Proof: Let...

Corollary 2.1. *If there is no uncertainty in system (1), i.e.,* $\triangle A = 0$*, then...*

Remark 2.1. *It should be noted that the result in Theorem 2.1...*

Example 2.1. *Let us consider the following example...*

$$\dot{x}(t) = Ax(t) + Bu(t) + B_1 w(t) \quad (1)$$

$$y(t) = Cx(t) + Du(t) + D_1 w(t) \quad (2)$$

.....

3. **Main Results.** Here are the main results in this paper...

Definition 3.1. *System (3) is stable if and only if...*

Lemma 3.1. *If system (3)-(4) is stable, then...*

$$\dot{x}(t) = Ax(t) + Bu(t) + B_1 w(t) \quad (3)$$

$$y(t) = Cx(t) + Du(t) + D_1 w(t) \quad (4)$$

Theorem 3.1. *Consider system (3) with the control law...*

Proof: Let....

Corollary 3.1. *If there is no uncertainty in system (3), i.e.,* $\triangle A = 0$*, then...*

Remark 3.1. *It should be noted that the result in Theorem 2.1...*

Example 3.1. *Let us consider the following example...*

.....

TABLE 1. Fuzzy rule table by FSTRM

x_1 / x_2	A_{21}	...	A_{2j}	...	A_{2k}
A_{11}	w_1/y_1	...	w_j/y_j	...	w_k/y_k
A_{12}	w_{k+1}/y_{k+1}	...	w_{k+j}/y_{k+j}	...	w_{2k}/y_{2k}
...		...	... ...		
A_{1i}	...	...	$w_{(i-1)k+j}/y_{(i-1)k+j}$		...
...		...	... ...		
A_{1r}	$w_{(i-1)k+1}/y_{(r-1)k+1}$	.....			w_{rk}/y_{rk}

4. **Control Design.** In this section, we present...

$$\ddot{y}\, x(t) = Ax(t) + Bu(t) + B_1 w(t) \tag{5}$$

$$y(t) = Cx(t) + Du(t) + D_1 w(t) \tag{6}$$

Definition 4.1. *System (5) is stable if and only if...*

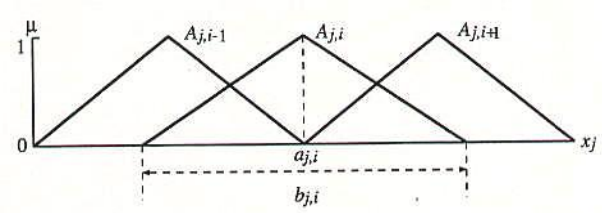

FIGURE 1. Triangular-type membership functions for x_j.

Lemma 4.1. *If system (5) is stable, then...*

Theorem 4.1. *Consider system (5)-(6) with the control law...*

Proof: Let....

Corollary 4.1. *If there is no uncertainty in system (5)-(6), i.e.,* $\triangle A = 0$*, then...*

Remark 4.1. *It should be noted that the result in Theorem 2.1...*

Example 4.1. *Let us consider the following example...*

.....

5. **Conclusions.** The conclusion of your paper is here...

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REFERENCES

[1] M. Mahmoud and P. Shi, *Methodologies for Control of Jump Time-delay Systems*, Kluwer Academic Publishers, Boston, 2003.

[2] P. Shi, Limited Hamilton-Jacobi-Isaacs equations for singularly perturbed zero-sum dynamic (discrete time) games, *SIAM J. Control and Optimization*, vol.41, no.3, pp.826-850, 2002.

[3] S. K. Nguang and P. Shi, Fuzzy H-infinity output feedback control of nonlinear systems under sampled measurements, *Automatica*, vol.39, no.12, pp.2169-2174, 2003.

[4] E. K. Boukas, Z. Liu and P. Shi, Delay-dependent stability and output feedback stabilization of Markov jump systems with time-delay, *IEE-Part D, Control Theory and Applications*, vol.149, no.5, pp.379-386, 2002.

[5] P. Shi, E. K. Boukas and R. K. Agarwal, H_1 control of discrete-time linear uncertain systems with delayed-state, *Proc. of 37th IEEE Conference on Decision & Control*, Tampa, Florida, pp.4551-4552, 1998.