TM02

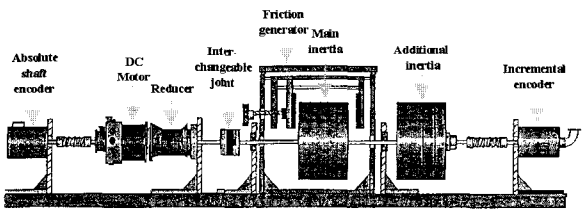
Poster Session

13:30-15:30 **Chair1 : Young I. Son (Dong-A Univ., Korea)**
Room : Base 2nd Floor-Zillertal **Chair2 : Hyun-Sik Ahn (Kookmin Univ., Korea)**

TM02-1

Improvement of the classical algorithm for H-infini optimization synthesis

Yong-Kyu KIM, Chang-Keun RYU(Namseoul Univ., KOREA), Doh-Chul YANG(KRRI, KOREA)



- Contents 1 : Abstract and Introduction
- Contents 2 : Choose the weighting function
- Contents 3 : H-infini optimization and Simulation
- Contents 4 : Conclusion and Reference

TM02-2

Decentralized Robust H_inf Controller Design for Uncertain Large-scale Discrete-time Systems with Interconnected Time-delay

Mooyoung Lee(Doowon Tech. College, KOREA), Dochang Oh(Konyang Univ., KOREA), Woohyen Kwon(Kyungpook Nat'l Univ., KOREA)

1. Introduction
2. System description and preliminaries
3. Controller Design
4. Conclusion
5. References

TM02-3

Adaptive Output Feedback Controllers for Feedback Passive Nonlinear Systems

Young I. Son(Dong-A Univ., KOREA), Hyungbo Shim(Hanyang Univ., KOREA), Nam H. Jo(Soongsil Univ., KOREA), Jin H. Seo(Seoul Nat'l Univ., KOREA)

- Contents 1: Preliminaries on passivity and feedback passivity
- Contents 2: Assumptions in the paper
- Contents 3: Adaptive output feedback controllers
- Contents 4: Adaptive disturbance attenuation
- Contents 5: Adaptive passification
- Contents 6: An illustrative numerical example

TM02-4

Delayed Feedback Non-fragile H_inf Control for Uncertain Time-Delay Systems

Ohmin Kwon, Sangchul Won(POSTECH, KOREA)

- Introduction-Previous results and motivation of this paper
- Problem Statements-The system considered and the objective of this paper
- Main Results-The sufficient condition for a delayed feedback non-fragile H_inf control
- Numerical Example-The effectiveness of the proposed method
- Conclusion

TM02-5

A robust design method for a long dead time system with an intergral mode

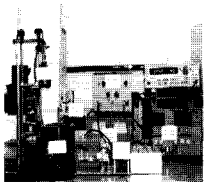
jin-suk Ma, sun-ja Kim(ETRI, KOREA), woo-hyen Kwon(Kyungpook Nat'l univ., KOREA)

In this paper, we present a robust controller design method that can not only deal with the constant time delay plant but also an uncertain time delay one. For a constant time delay plant, The proposed DTC can independently adjust the set response and the disturbance response without any stability constraint. And in the uncertain time delay case, one can process the control design step with uncertainty norm bound. To verify real effectiveness, theoretical analysis and simulation results are given.

TM02-6

H2 Design for Active Vibration Control of a Cantilever Beam

Sooyoung Choi, Joonhong Jung, Kiheon Park(SungKyunKwan Univ., KOREA)



- An experiment for the active vibration control of a cantilever beam is performed.
- An active damping system consisting of a laser sensor and an electromagnetic actuator.
- The design procedure and the performance analysis of an H2 controller for non-collocated systems.
- Simulations and experiments are performed to verify the performances of the controller.
- The optimal H2 controller is designed based on a reduced order model.
- The sensitivity function is introduced to analyze the spillover phenomenon.
- Active vibration control, Cantilever beam, H2 controller, spillover, Non-collocated system