

# FA02

## Multimedia and Control System

09:00-11:00

Room : Base 1st Floor-Inntal

Chair1 : Jaehyun Park ( Inha Univ., Korea )

Chair2 :

09:00 – 09:20

FA02-1

### Mixed Model Reduction to Improve Steady-State Behaviour of RLC Circuits

Won Kyu Lee(Hanbat Nat'l Univ., KOREA), Victor Sreeram(Univ. of Western Australia, AUSTRALIA)

Several model order reduction methods for large RLC circuits have been developed in the last few years. Krylop subspace based methods are extremely effective for generating the low order models of large system but there is no optimal theory for the resulting models. Alternatively, methods based truncated balanced realization have an optimality property but are too computationally expensive to use on complicated problems such as large RLC circuits.

In this paper, we present a method for improving time domain response of reduced order RLC circuits. The method used here is based on combing Krylop subspace based method and truncated balanced realization method plus residualization. The metho...

09:20 – 09:40

FA02-2

### Design of Sliding Mode Controller for Discrete Linear Systems with Uncertainty Using New Discrete Reaching Laws

Jinsu Kim, Sung-Han Son, Byungsun Cho, Kang-Bak Park(Korea Univ., KOREA), Teruo Tsuji, Tsuyoshi Hanamoto(Kyushu Institute of Technology, JAPAN)

- Sliding mode controller using new discrete reaching laws
- Time-delay control
- Global Uniform Ultimate Boundedness

09:40 – 10:00

FA02-3

### On-line Motion Adaptation : a Hybrid Approach

seongmin baek, junae kim, jaeyong chung(ETRI, KOREA)

1. Introduction
  2. Related Work
  3. Overview of the Avatar Control System
  4. A Hybrid Control Method
  5. Motion Conversion
  6. Experimental result and Conclusion
- References

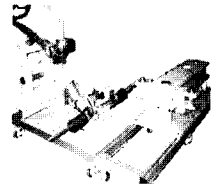
10:00 – 10:20

FA02-4

### The control strategy for Steer-by-Wire test system

Seok-Hwan Jang, Ho-Chol Chae, Se-Wook Oh, Chang-Soo Han, Tong-Jin Park(Hanyang Univ., KOREA ), Seok-Chan Yun(Hyundai Mobis)

- Introduction
- Steer by wire(SBW)
- HILS System
- SBW Control Algorithm
- SBW-HILS
- Simulation
- Conclusion



10:20 – 10:40

FA02-5

### Speaker Identification Using Incremental Learning

kwee-bo sim, kwang-seung heo,  
dong-wook lee(Chungang Univ., KOREA)

- FFT
- Autocorrelation
- Levinson\_Durbin resolution
- LP coefficients
- LP cepstral coefficients
- Incremental Learning

10:40 – 11:00

FA02-6

### Mobile Software Agents for Information Retrieval in WWW-Databases

Claudia Herzig(NEMETech, Germany),  
Brit Hockauf(IGD Rostock, Germany)

Current database technique offers the possibility to store giant amounts of data, worldwide networks provide the technical base for everybody to access it. However, it is usually very time-consuming or even impossible to find the most relevant information. This article describes the usage of mobile software agents to query different databases on the Internet, to rate and compress the results and to present them to the user in a consistent form. It contains a general definition of software agents, a detailed description of the approach and a discussion of its main advantages and weaknesses.