Activities with Asian Universities
at Waseda University

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Outline

- Current situation of IPS Waseda
- Joint research projects by the Kitakyushu international exchange program
  - National Taiwan University
  - Tsinghua University
  - Fudan University & Shanghai Jiao Tong University
- Other activities
  - Waseda University System LSI International Workshop
  - Special lectures by distinguished visiting professors
  - Kitakyushu Human technology cluster project
Situation of IPS Waseda

<Taiwan>
National Taiwan Univ. * 、 National Tsing Hua Univ. * 、 National Chiao Tung Univ. * 、 National Cheng Kung Univ. * #

<Korea>
KAIST * 、 Seoul National Univ. * 、 Hanyang Univ. * 、 Korea Polytechnic Univ. * #

<China>
Tsinghua Univ. * 、 Peking Univ. * 、 Shanghai Jiao Tong Univ. * 、 Dalian Univ. of Tech. 、 Fudan Univ. * #

<India>
Indian Institute of Science #

<USA>
UC Berkeley 、 Stanford Univ. +

* Joint research projects or agreement
+ Special lectures by visiting professors
# Acceptance of researchers or students
Project theme:
- System LSI design automation

Principal member:
- Prof. L. G. Chen, Prof. Y. W. Chang and Prof. J. L. Huang from NTU
- Prof. T. Yoshimura, Prof. S. Kimura and Prof. S. Goto from Waseda

NTU-Waseda System LSI workshop
- Nov. 27, 2004 at IPS Waseda
- Speakers: 7 professors (NTU) and 6 professors (Waseda)
- Topics: Multimedia SoCs, Sensor network, RF IC, Formal verification, Physical design and testing
Project theme:

Design methodologies for multimedia system LSI

Principal member:

Prof. X. Hong, Prof. S. Dong and Prof. S. Yang from Tsinghua University
Prof. S. Goto and Prof. T. Ikenaga from Waseda

Visiting Waseda for discussion:

Prof. Hong and Prof. Dong: July 2004
Prof. Yang and Prof. Dong: Dec. 2004
Prof. Dong: Jan. 2005

Inter-division agreement on an exchange faculties and students

# of students from Tsinghua Univ.

Post doctor: 2, PhD: 5 and Master: 8
Fudan University
Shanghai Jiao Tong University

- Project theme:
  - Low power & high speed analog LSI design

- Principal member:
  - Prof. M. Hao and Prof. B. Shen from Fudan
  - Prof. J. Mao and Prof. X. Li from Jiao Tong
  - Prof. Y. Inoue from Waseda

- Visiting Waseda for workshop and meeting:
  - Nov. 17-22, 2004: Prof. B. Shen and Prof. F. Zhou (Fudan)
  - Nov. 17-27, 2004: Prof. X. Li (Jiao Tong)
Waseda University System LSI International Workshop

- Theme: Research and education in System LSI
- Date: Jan. 26, 2004 at Kokura
- Speakers
  - <Taiwan> Prof. Y. W. Chang (National Taiwan Univ.), Prof. L. R. Dung (National Chiao Tung Univ.), Prof. B. D. Liu (National Cheng Kung Univ.) and Prof. C. W. Wu (National Tsing Hua Univ.)
  - <China> Prof. X. Hong and Prof. S. Dong (Tsinghua Univ.)
  - <Korea> Prof. J. Chong (Hanyang Univ.)
  - <India> Prof. S. K. Nandy (Indian Institute of Science)
  - <USA> Prof. C. K. Cheng (UC San Diego)
  - <Japan> Univ. of Tokyo, Chuo Univ., Waseda Univ., NEC, Toshiba and Fujitsu
- # of Attendants: 85
- Sponsored by MEXT (new training project), Kitakyushu city and Kitakyushu Convention Bureau
Special lectures by distinguished visiting professors

- **Prof. C. L. Liu, National Tsing Hua University**
  - “Computer-aided design of VLSI circuits and combinatorial optimization”

- **Prof. Chong-Ming Kyung, KAIST**
  - Dec. 19 – 22, 2004
  - “Codesign and co-verification methods”

- **Prof. G. De Micheli, Stanford University**
  - Nov. 24 – 29, 2004
  - “Robust and reliable system on chip design”

- **Prof. E. S. Kuh, UC Berkeley** (Dec. 2003)

- Sponsored by MEXT (new training project)
Kitakyushu human technology cluster project

- Japanese government invests $4.5 M to universities every year to incubate new business in system LSI.
- Waseda University is a center of the Kitakyushu cluster.
  - Ubiquitous information processing SoC
  - MEMS/LSI integration
  - Prototyping LSI design
- International members
  - Prof. J. W. Chong, Hanyang Univ. (Visiting Waseda for discussion and research collaboration on Dec. 2004)
  - Prof. J. K. Choi, Korea Polytechnic Univ. (Visiting Waseda for research collaboration on July 2004)
Summary

- Collaboration between Asian countries become more and more important in System LSI field to be a leader in the world.

- The System LSI field of Waseda Univ. values the joint activities above everything else.
  - Kitakyushu international exchange program
  - Workshop and special lectures
  - Kitakyushu Human technology cluster

We will continue to promote these activities with Asian universities!