



CERIES

Tohoku University Electro-Related Departments
Global COE Program

Center of Education and Research for Information Electronics Systems

Workshop on Emerging VLSI for Sensing/Computing/Communication and Its application

February 21-22, 2008, at Diamond Hawaii Resort, Maui, Hawaii, USA

Sponsor: Tohoku University Global COE Program

“Center of Education and Research for Information Electronics Systems”

Program

February 21st (THU) 13:25-18:00

13:25 Opening remarks Prof. F. Adachi, GCOE Leader)

13:30-14:10

“Broadband wireless technology”

Fumiyuki Adachi (Tohoku University, Japan)

14:10-14:50

“Prospects of VLSI in New-Paradigm Computing”

K. C. Smith (University of Toronto, Canada)

14:50-15:30

“Complex BPF with an Automatic Digital Tuning Circuit for Low-IF Receivers”

Shoichi Masui (Tohoku University, Japan)

15:30-16:00 Break

16:00-16:40

“CMOS Integrated Sensor for the Rapid Identification of Bacteria”

Glenn Gulak (University of Toronto, Canada)

16:40-17:20

“Performance enhancement of evolutionary analog circuit sizing system using principal component analysis”

Masanori Natsui and Yoshiaki Tadokoro (Toyohashi University of Technology, Japan)

17:20-18:00

“Low Power Integrated Digitally Controlled DC-DC Converters”

Wai-Tung Ng (University of Toronto, Canada)

18:00- Dinner



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February 22nd (FRI) 9:00-

9:00-9:40

“Nonvolatile Logic and Its Applications”

Takahiro Hanyu (Tohoku University, Japan)

9:40-10:20

“Performance Analysis of Analog LDPC Decoders”

Vincent Gaudet (University of Alberta, Canada)

10:20-10:50 Break

10:50-11:15

“Frequency-domain equalization and transmit antenna diversity for DS-CDMA”

Kazuaki Takeda, Fumiyuki Adachi (Tohoku University, Japan)

11:15-11:40

“Challenge towards Low-Power LDPC Decoder LSI”

Naoya Onizawa and Takahiro Hanyu (Tohoku University, Japan)

11:40-12:05

“Space-time block coded-joint transmit/receive antenna diversity for wireless mobile communication”

Hikomichi Tomeba, Fumiyuki Adachi (Tohoku University, Japan)

12:05 Closing remarks

Lunch break

Afternoon: Technical Tour