

AVIC2013 Conference Program (tentative, ver.3)

October 16 – 18, 2013

McGill Faculty Club and Conference Centre,
Montréal, Canada

Wednesday, October 16, 2013

0800–1630 Registration Desk Open

0900–0950 Opening Ceremony

MC: Frédéric Nabki, Université du Québec à Montréal, Canada

Welcome Address by General Chair, *Roni Khazaka, McGill University, Canada*

Opening Address by General Co-Chair, *Takeshi Shima, Kanagawa University, Japan*

Opening Address by General Co-Chair, *Mounir Boukadoum,*

Université du Québec à Montréal, Canada

Opening Address by TPC Chair, *Yasuaki Inoue, Waseda University, Japan*

1000–1100 Plenary Session 1

Session Chair: Yasuaki Inoue, Waseda University, Japan

“Self-Healing” Design of RF and mm-Wave Systems on Chip

Prof. Mohammed Ismail, Ohio State University, USA

1100–1230 Session 1: RF Circuits

Session Chairs: Cosy Muto, Nagasaki University, Japan

Frédéric Nabki, Université du Québec à Montréal, Canada

Spiral Inductor Evaluation For LC-Voltage Controlled Oscillators in 0.18mm CMOS

Ryo Ito, Kazuyuki Wada and Kawori Sekine

Dual-Band Class-E Power Amplifier with Varying Duty-Ratio

Takuma Torii, Akira Hyogo and Toshiro Tsukada

A 0.18 μ m CMOS Fully Differential VGA with 47dB Dynamic Range

I. L. Abdalla, H. Jia, R. Pokharel, A. Allam, M. Ragab, H. Kanaya and K. Yoshida

1230–1330 Lunch

1330–1500 Session 2: AD/DA and Related Topics I

Session Chairs: Masao Hotta, Tokyo City University, Japan

Frédéric Nabki, Université du Québec à Montréal, Canada

A Delta-Sigma Modulator with a FIR Filter Reducing Quantization Noise in Signal-band

Satoshi Saikatsu, Michitaka Yoshino and Akira Yasuda

Analysis of Flash A/D Converter Gain Effect in Delta-Sigma Modulators

Daisuke Kanemoto, Takahide Sato and Makoto Ohki

A 2-1-1 MASH Delta Sigma ADC for GSM Communication

*Anugerah Firdauzi, Muhammad Arijal, Kiki Wirianto, Amy H. Salman
and Achmad F. Mas'ud*

1500–1530 Coffee Break

1530–1630 Session 3: Power Electronics

Session Chair: Nobukazu Takai, Gunma University, Japan

A Wide Input Amplitude Range, Highly Efficient Rectifier For Energy Harvesting Systems

Qiang Li, Dan Niu and Yasuaki Inoue

Buck Converter with Fast Output Voltage Transition using Current Regeneration Path

Takahide Sato and Daisuke Kanemoto

Thursday, October 17, 2013

0800–1630 Registration Desk Open

0900–1000 Plenary Session 2

Session Chair: Roni Khazaka, McGill University, Canada

Reducing The Analog-Digital Productivity Gap Using Time-Mode Signal Processing

Prof. Gordon W. Roberts, McGill University, Canada

1000–1030 Break

1030–1230 Session 4: AD/DA and Related Topics II

Session Chairs: Daisuke Kanemoto, Yamanashi University, Japan

Gordon W. Roberts, McGill University, Canada

A Low-Offset-Voltage Dynamic Comparator using Automatic Differential-Pair Matching for Low-Power ADCs

Takayuki Okazawa, Ippei Akita and Makoto Ishida

A beta-expansion Based 10-bit CMOS Cycle ADC with Radix-value Self-correction Technique

R.Sugawara R.Suzuki H.San T.Matsuura K.Aihara and M.Hotta

Robustness of Cyclic ADC Based on b-expansion

Toshiki Yamada, Ronpei Sugawara, Hao San, Tatsuji Matsuura,

Kazuyuki Aihara and Masao Hotta

Background Calibration Technique for a Pipelined ADC Using a Noise-Shaping and Feedback Structure

Takahisa Kawabe, Michitaka Yoshino and Akira Yasuda

1230–1330 Lunch

1330–1630 Session 5: Analog Circuits, Applications and Related Topics I

Session Chairs: Akira Yasuda, Hosei University, Japan

Mounir Boukadoum, Université du Québec à Montréal, Canada

Design Method of a Control Circuit for 0.6-V CMOS Log-Domain Filter Extended
Temperature Range

Takahiro Ishihara, Kazuyuki Wada and Kawori Sekine

LSI Design for Patch Clamp Measurement Using 0.18 μ m CMOS Process

Wataru Nakayama, Yohei Yasuda, Takuya Kawashima and Nobuhiko Nakano

A Study on CPG Device with Interstitial Cells Model by 0.18 μ m CMOS Process

Katsutoshi Saeki, Daisuke Nihei, Tatsuya Tatebe and Yoshifumi Sekine

A 0.5V Analog Differential Absolute Distance Circuit using Pulse Width Modulation and

(1500–1530 Coffee Break)

Multi-input Comparator in Weak Inversion Region

Tomochika Harada

Time-Domain SPICE Macromodel of High-Speed Modules from Y-parameter Data using
Loewner Matrix Approach

Zhaoqing Liu, Muhammad Kabir and Roni Khazaka

1800–2030 Conference Banquet (including Best Paper Award Ceremony)

Friday, October 18, 2013

0800–1630 Registration Desk Open

0900–1000 Plenary Session 3

Session Chair: Takeshi Shima, Kanagawa University, Japan

Extremely Low Power Digital and Analog Circuits

Dr. Hirofumi Shinohara, STARC, Japan

1000–1030 Coffee Break

1030–1230 Special Session

Organizer: {who}

Session Chairs: Roni Khazaka, McGill University, Canada

{Titles and presenters are not known yet}

1230–1330 Lunch

1330–1530 Session 6: Analog Circuits, Applications and Related Topics II

Session Chairs: Kazuyuki Wada, Meiji University, Japan

Sawan or Roni, Canada

Probabilistic Search Schemes for High-Speed Low-Power Content-Addressable Memories

Naoya Onizawa, Shoun Matsunaga, V. C. Gaudet, W. J. Gross and T. Hanyu

DC Characteristics and Variability on 90nm CMOS Transistor Array-style Analog Layout

Shigetoshi Nakatake and Toru Fujimura

A New Technique for Improving Sensitivity of Quartz Crystal Microbalance based on Phase Locked Loop

Shohei Yamada, Yousuke Kaneko, Takeshi Imaiike and Yukinori Sakuta

Current-to-Time Converter Circuit for High Precision System containing Hysteresis Characteristics

Toru Kamiyama, Nobukazu Takai, Haruo Kobayashi and Biswas Sumit Kumar

1530–1630 Plenary Session 4

Session Chair: Roni Khazaka, McGill University, Canada

{Title is not known yet}

Prof. Mohamad Sawan, École Polytechnique de Montréal, Canada

1630–1645 Closing and Farewell Ceremony

MC: Roni Khazaka, McGill University, Canada

Introduction to the venue for the joint conference 4S2014/AVIC2014 in Ho Chi Minh City, Vietnam

Huynh Thanh Dat, Vietnam