

2011 Proceedings of the ESSCIRC

(ESSCIRC 2011)

Helsinki, Finland
12 – 16 September 2011



IEEE Catalog Number: CFP11542-PRT
ISBN: 978-1-4577-0703-2

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Gunnar Malm; *KTH Kungliga Tekniska Högskolan, Sweden*

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B3L-E Aging Effects in Nanoscale

Date: Wednesday, 14 September, 2011
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Date: Wednesday, 14 September, 2011
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Date: Wednesday, 14 September, 2011

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Date: Wednesday, 14 September, 2011
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¹ETRI, South Korea; ²KAIST, South Korea; ³Korea Advanced Institute of Science and Technology, South Korea; ⁴KWU, South Korea
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Sylvain Jolivet¹, Sébastien Amiot¹, Simon Bertrand¹, Olivier Crand¹, Bernard Jarry², Julien Lintignat²
¹NXP Semiconductors, France; ²XLIM UMR 6172, Université de Limoges/CNRS, France

B4L-F Analog Techniques 2

Date: Wednesday, 14 September, 2011
Time: 14:30 - 15:30
Room: Terrace Hall
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Doug Smith; *SMSC, UK*

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Date: Wednesday, 14 September, 2011
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Roland Thewes; *Technische Universität Berlin, Germany*

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Iasonas Triantis⁴, Andreas Demosthenous², Mohamad Rahal³, Hongwei Hong⁴, Richard Bayford¹
¹*Middlesex University, United Kingdom*; ²*University College London, United Kingdom*;
³*University of Hail, Saudi Arabia*; ⁴*University College London, United Kingdom*
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Date: Wednesday, 14 September, 2011

Time: 14:30 - 15:30

Room: Congress Hall A

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Peter Baltus; *Centre for Wireless Technology Eindhoven, Netherlands*

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¹*Toshiba Corporation, Japan*; ²*Toyohashi University of Technology, Japan*

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Inha university, South Korea

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Date: Wednesday, 14 September, 2011

Time: 17:00 - 18:20

Room: Terrace Hall

Chair: Patrick Quinn; *Xilinx Dublin, Ireland*

- 17:00** **A 12b 5-to-50MS/s 0.5-to-1V Voltage Scalable Zero-Crossing Based Pipelined ADC355**
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¹*Broadcom Corporation, United States;* ²*Texas A&M University, United States*

B6L-G Power Management

Date: Wednesday, 14 September, 2011
Time: 17:00 - 18:20
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B6L-H Tranceiver Subsystems

Date: Wednesday, 14 September, 2011
Time: 17:00 - 18:40
Room: Congress Hall A
Chairs: Sven Mattisson; *Ericsson, Sweden*
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- 17:20** **A Complete DVB-T/ATSC Tuner Analog Base-Band Implemented with a Single Filtering ADC391**
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¹*Marvell Italia S.R.L., Italy*; ²*University of Pavia, Italy*
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¹*ESAT/K.U.Leuven & imec, Belgium*; ²*Infineon Austria AG, Austria*; ³*Katholieke Universiteit Leuven, Belgium*; ⁴*Katholieke Universiteit Leuven, ESAT-MICAS, Belgium*
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¹*Katholieke Universiteit Leuven, Belgium*; ²*National Chiao Tung University, Taiwan*;
³*National Chiao-Tung University, Taiwan*

C3L-F Circuits & Systems in Emerging Technologies

Date: Thursday, 15 September, 2011
Time: 11:20 - 13:00
Room: Terrace Hall
Chairs: Christian Enz; *Swiss Center for Electronics and Microtechnology, Switzerland*
Wim Dehaene; *Katholieke Universiteit Leuven, Belgium*

- 11:20 A Monolithically-Integrated Optical Receiver in Standard 45-nm SOI407**
Michael Georgas², Jason Orcutt², Rajeev Ram², Vladimir Stojanovic¹
¹Massachusetts Institute of Technology, United States; ²MIT, United States
- 11:40 DC-DC Converter Assisted Two Stage Amplifier in Organic Thin-Film Transistor
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- 12:40 Post-Silicon Calibration of Analog CMOS Using Phase-Change Memory Cells423**
Cheng-Yuan Wen¹, Jing Li², Sangbum Kim², Jonathan Proesel², Chung Lam²,
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*¹Carnegie Mellon University, United States; ²IBM T. J. Watson Research Center, United
States*

C3L-G DC-DC Converters 1

Date: Thursday, 15 September, 2011

Time: 11:20 - 13:00

Room: Room 25

Chairs: Michel Steyaert; *Katholieke Universiteit Leuven, Belgium*

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¹Brandenburg University of Technology, Germany; ²Dialog Semiconductor, Germany; ³Fudan University, China
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- 12:40 A Constant Off-Time Controlled Boost Converter with Adaptive Current Sensing Technique.....443**
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¹Analog Devices, China; ²Fudan University, China

C3L-H Frequency Synthesis

Date: Thursday, 15 September, 2011
Time: 11:20 - 13:00
Room: Congress Hall A
Chairs: Andrea Bevilacqua; *University of Padova, Italy*
Yann Deval; *IXL Laboratory, University of Bordeaux 1, France*

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¹*IEMN, France*; ²*ISEN/IEMN, France*; ³*ST Microelectronics, CEA-LETI MINATEC, France*; ⁴*STMicroelectronics, France*

C5L-F Low-Power ADCs

Date: Thursday, 15 September, 2011
Time: 15:30 - 16:30
Room: Terrace Hall
Chairs: Georgi Radulov; *Eindhoven University of Technology, Netherlands*
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Room: Room 25
Chairs: Bernhard Wicht; *Reutlingen University, Germany*
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- 15:30 Merged Two-Stage Power Converter with Soft Charging Switched-Capacitor Stage in 180 nm CMOS.....479**
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- 15:50 A Monolithic 0.77W/mm² Power Dense Capacitive DC-DC Step-Down Converter in 90nm Bulk CMOS483**
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¹K.U.Leuven, Belgium; ²Katholieke Universiteit Leuven, Belgium; ³KU Leuven, Belgium
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¹Graz University of Technology, Austria; ²Infineon Technologies Austria AG, Austria

C5L-H VCOs

Date: Thursday, 15 September, 2011
Time: 15:30 - 16:30
Room: Congress Hall A
Chairs: Piero Andreani; *Lund University, Sweden*
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¹*Delft University of Technology, Netherlands*; ²*IMEP-LAHC, UJF, France*; ³*Sharif Univ. of Technology, Iran*; ⁴*University of Tehran, Iran*
- 16:10 A Feedback Class-C VCO with Robust Startup Condition Over PVT Variations and Enhanced Oscillation Swing499**
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Tokyo Institute of Technology, Japan

C6L-F **References**

Date: Thursday, 15 September, 2011
Time: 17:00 - 18:20
Room: Terrace Hall
Chairs: Marco Berkhout; *NXP, Netherlands*
 Juha Kostamovaara; *University of Oulu, Finland*

- 17:00** **A Scaled Thermal-Diffusivity-Based Frequency Reference in 0.16um CMOS503**
Mahdi Kashmiri¹, Kamran Souri², Kofi Makinwa¹
¹Delft University of Technology, Netherlands; ²TU-Delft, Netherlands
- 17:20** **A Spread Spectrum Clock Generator Based on a Short-Term Optimized Chaotic
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*¹DEIS - University of Bologna, Italy; ²ENDIF - University of Ferrara, Italy; ³NSC
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- 17:40** **Effects of Packaging and Process Spread on a Mobility-Based Frequency
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Fabio Sebastiano², Lucien Breems², Kofi Makinwa¹, Salvatore Drago², Domine
Leenaerts², Bram Nauta³
*¹Delft University of Technology, Netherlands; ²NXP Semiconductors, Netherlands;
³University of Twente, Netherlands*
- 18:00** **An Ultra Low Power Bandgap Operational at Supply As Low As 0.75V515**
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¹Texas Instruments, Germany; ²Texas Instruments Deutschland, Germany

C6L-G Embedded Memories

Date: Thursday, 15 September, 2011
Time: 17:00 - 18:20
Room: Room 25
Chairs: Tobias Noll; *RWTH Aachen University, Germany*
Ralph Hasholzner; *Infineon Technologies, Germany*

- 17:00** **A 65 nm, 850 MHz, 256 kbit, 4.3 pJ/Access, Ultra Low Leakage Power Memory Using Dynamic Cell Stability and a Dual Swing Data Link.....519**
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¹*ESAT/K.U.Leuven & imec, Belgium;* ²*K.U.Leuven, Belgium;* ³*K.U.Leuven, ESAT-MICAS, Belgium*
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¹*ESAT/K.U.Leuven & imec, Belgium;* ²*KU Leuven, Belgium*
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¹*ESAT/K.U.Leuven & imec, Belgium;* ²*imec & ESAT/K.U.Leuven, Belgium;* ³*imec - Holst Centre, Netherlands*

C6L-H RF Receiver Techniques

Date: Thursday, 15 September, 2011
Time: 17:00 - 18:40
Room: Congress Hall A
Chairs: Henrik Sjoland; *Lund University, Sweden*
Piet Wambacq; *IMEC, Belgium*

- 17:00 A Narrow-to-Wideband Scrambling Technique Increasing Software Radio Receiver Linearity 535**
Fabian van Houwelingen², Ed van Tuijl², Bram Nauta², Maarten Vertregt¹
¹*NXP semiconductors, Netherlands*; ²*University of Twente, Netherlands*
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¹*Aalto University, Finland*; ²*Renesas Mobile, Finland*
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¹*Holst centre and imec, Netherlands*; ²*imec - Holst Centre, Netherlands*
- 18:00 A 65nm CMOS 282uW 915MHz Direct Conversion Receiver Front-End 547**
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Lund University, Sweden
- 18:20 A Fully Integrated High Security NFC Target IC Using 0.18 um CMOS Process 551**
Jong-Wook Lee¹, D.H.T. Vo¹, S.H. Hong¹, Q.-H. Huynh²
¹*Kyung Hee University, South Korea*; ²*Silicon Design Solutions, United States*