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*R. Robache{1}, J. Boland{1}, C. Thibeault{1}, Y. Savaria{2}*  
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**RF and Microwave Circuits & Systems I Session**

[A Low Power Wideband Differential Transimpedance Amplifier for Optical Receivers in 0.18- m CMOS](#) ``

*W. Chong, Y. Tan, K. Yeo*  
Nanyang Technological University, Singapore

[Ultra-Low-Power, Ultra-Low-Voltage 2.12 GHz Colpitts Oscillator Using Inductive Gate Degeneration](#) ``

*R. Rottava{2}, C. C mara S. Jr.{2}, F. Rangel de Sousa{2}, R. Nunes de Lima{1}*  
{1}Universidade Federal da Bahia, Brazil; {2}Universidade Federal de Santa Catarina, Brazil

**Effect and Adaptive Correction of Impedance Mismatch Between Antenna and Power Amplifier on Digital Predistortion** ``

*A. Mbaye, G. Baudoin, M. Villegas, T. Gotthans*  
ESIEE Paris, France

**FM-UWB Transmitter Using RC Oscillators** ``

*L. Almeida<sup>{1}</sup>, M. Martins<sup>{2}</sup>, J. Fernandes<sup>{1}</sup>*  
{1}INESC-ID / Instituto Superior Técnico - TU Lisbon, Portugal; {2}INESC-ID / Instituto Superior Técnico - TU Lisbon / TES Electronic Solutions, Portugal

**Accurate and Efficient Analytical Electrical Model of Antenna for NFC Applications** ``

*M. Dieng<sup>{2}</sup>, M. Comte<sup>{1}</sup>, S. Bernard<sup>{1}</sup>, V. Kerzérho<sup>{1}</sup>, F. Azaïs<sup>{1}</sup>, M. Renovell<sup>{1}</sup>, T. Kervaon<sup>{3}</sup>, P. Pugliesi-Conti<sup>{3}</sup>*  
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## Imaging & Sensors Session

**A CMOS Image Sensor with Low-Complexity Video Compression for Wireless Sensor Networks** ``

*A. Chefi<sup>{2}</sup>, A. Soudani<sup>{1}</sup>, G. Sicard<sup>{2}</sup>*  
{1}Faculté des Sciences de Monastir, Tunisia; {2}Laboratoire TIMA, France

**Benefits of Three-Dimensional Circuit Stacking for Image Sensors** ``

*F. Guezzi-Messaoud<sup>{1}</sup>, A. Dupret<sup>{1}</sup>, A. Peizerat<sup>{1}</sup>, Y. Blanchard<sup>{2}</sup>*  
{1}CEA-Leti, France; {2}ESIEE Paris, France

**A Novel 0.5GHz Real Time Asynchronous Photon Detection and Counting Technique: ROIC Design for Cooled SWIR HgCdTe Infrared Detector** ``

*H. Amhaz, K. Foubert, F. Guellec, J. Rothman*  
CEA-Leti, France

**Column-Separated Compressive Sampling Scheme for Low Power CMOS Image Sensors** ``

*N. Katic, M. Hosseini Kamal, M. Kilic, A. Schmid, P. Vandergheynst, Y. Leblebici*  
École Polytechnique Fédérale de Lausanne, Switzerland

**Autonomous Sensor System for Deep-Sea Pipeline Monitoring** ``

*S. Amara-Madi<sup>{2}</sup>, A. Price<sup>{2}</sup>, A. Bensaoula<sup>{2}</sup>, M. Boukadoum<sup>{1}</sup>*  
{1}Université du Québec à Montréal, Canada; {2}University of Houston, United States

## Data Converters II Session

**A CMOS Cyclic Folding A/D Converter with a New Compact Layout Technique** ``

*S. Lee, D. Park, J. Bae, M. Song*  
Dongguk University, Korea, South

[A Design Methodology for Delta-Sigma Converters Based on Solid-State Passive Filters](#) ``

*P. Benabes*  
Supélec, France

[A 12-Bit Interpolated Pipeline ADC Using Body Voltage Controlled Amplifier](#) ``

*H. Lee, M. Miyahara, A. Matsuzawa*  
Tokyo Institute of Technology, Japan

[Design and FPGA-Based Multi-Channel, Low Phase-Jitter ADPLL for Audio Data Converter](#) ``

*N. Ben Ameer, N. Masmoudi, M. Loulou*  
École Nationale d'ingénieurs de Sfax, Tunisia

[A VCO Linearization System for ADC Applications](#) ``

*J. Michaelsen, D. Wisland*  
University of Oslo, Norway

## Wireless Communication Session

[Adaptive Zero-Crossing Digital Phase-Locked Loop for Packet Synchronization](#) ``

*S. Al-Araji, E. Salahat, D. Kilani, S. Abu Yasin, H. Alkhoja, J. Aweya*  
Khalifa University, U.A.E.

[Demonstration of 300 Mbit/S Free Space Optical Link with Commercial Visible Led](#) ``

*P. Binh<sup>{2}</sup>, V. Trong<sup>{2}</sup>, D. Hung<sup>{2}</sup>, P. Renucci<sup>{1}</sup>, A. Balocchi<sup>{1}</sup>, X. Marie<sup>{1}</sup>*  
*<sup>{1}</sup>Université de Toulouse, France; <sup>{2}</sup>Vietnam Academy of Science and Technology, Vietnam*

[A Programmable DSP Front-End for All-Digital 4G Transmitters](#) ``

*E. Roverato<sup>{1}</sup>, M. Kosunen<sup>{1}</sup>, J. Lemberg<sup>{1}</sup>, K. Stadius<sup>{1}</sup>, J. Ryyänen<sup>{1}</sup>, P. Eloranta<sup>{2}</sup>, R. Kaunisto<sup>{2}</sup>, A. Pärssinen<sup>{2}</sup>*  
*<sup>{1}</sup>Aalto University School of Electrical Engineering, Finland; <sup>{2}</sup>Renesas Mobile Corporation, Finland*

[Low Complexity Maximum Likelihood Estimation of Time and Frequency Offset for DVB-T2](#) ``

*S. Saad, H. Hamed, A. Shalash*  
Cairo University, Egypt

## Biomedical Circuits & Systems Session

[A 4000 Hz CMOS Image Sensor with In-Pixel Processing for Light Measurement and Modulation](#) ``

*T. Laforest*<sup>{1}</sup>, *A. Dupret*<sup>{1}</sup>, *A. Verdant*<sup>{1}</sup>, *F. Ramaz*<sup>{2}</sup>, *S. Gigan*<sup>{2}</sup>, *G. Tessier*<sup>{2}</sup>, *E. Benoit à la Guillaume*<sup>{2}</sup>  
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**Lifetime Tracing of Cardiopulmonary Sounds with Ultra-Low-Power Sound Sensor Stick Connected to Wireless Mobile Network** \*\*

*Z. Wang*<sup>{2}</sup>, *H. Jiang*<sup>{2}</sup>, *K. Yang*<sup>{2}</sup>, *L. Zhang*<sup>{2}</sup>, *J. Wei*<sup>{2}</sup>, *F. Li*<sup>{2}</sup>, *B. Chi*<sup>{2}</sup>, *C. Zhang*<sup>{2}</sup>, *S. Wu*<sup>{1}</sup>, *Q. Lin*<sup>{1}</sup>, *W. Jia*<sup>{1}</sup>  
{1}Research Institute of Tsinghua University in Shenzhen, China; {2}Tsinghua University, China

**A 38 $\mu$ A Wearable Biosignal Monitoring System with Near Field Communication** \*\*

*K. Yamashita*<sup>{1}</sup>, *S. Izumi*<sup>{1}</sup>, *M. Nakano*<sup>{1}</sup>, *T. Fujii*<sup>{1}</sup>, *T. Konishi*<sup>{1}</sup>, *H. Kawaguchi*<sup>{1}</sup>, *H. Kimura*<sup>{4}</sup>, *K. Marumoto*<sup>{4}</sup>, *T. Fuchikami*<sup>{4}</sup>, *Y. Fujimori*<sup>{4}</sup>, *H. Nakajima*<sup>{2}</sup>, *T. Shiga*<sup>{3}</sup>, *M. Yoshimoto*<sup>{1}</sup>  
{1}Kobe University, Japan; {2}Omron Corp., Japan; {3}Omron Healthcare Inc., Japan; {4}Rohm Co. Ltd., Japan

**Far-Field UHF Remotely Powered Front-End for Patient Monitoring with Wearable Antenna** \*\*

*O. Kazanc*<sup>{1}</sup>, *J. Rodríguez-Rodríguez*<sup>{2}</sup>, *M. Delgado-Restituto*<sup>{2}</sup>, *F. Maloberti*<sup>{3}</sup>, *C. Dehollain*<sup>{1}</sup>  
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**A Sigma Delta ISFET Readout Circuit for Lab-on-Chip Applications** \*\*

*G. Nabovati*<sup>{}</sup>, *E. Ghafarzadeh*<sup>{1}</sup>, *F. Awwad*<sup>{2}</sup>, *M. Sawan*<sup>{1}</sup>  
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