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# Table of Contents

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<b>A1L-A</b>	<b>Next Generation Mobile Healthcare: A Circuits and Systems Perspective</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 300	
Chair(s)	Koushik Maharatna, <i>University of Southampton</i>	
10:40		
<b>A1L-A.1</b>	<b>Towards the Development of Next-Generation Remote Healthcare System: Some Practical Considerations .....</b>	<b>1</b>
	Koushik Maharatna, Evangelos B. Mazomenos, <i>University of Southampton</i> ; John Morgan, <i>Southampton University Hospitals NHS Trust</i> ; Silvio Bonfiglio, <i>FIMI Srl</i>	
10:58		
<b>A1L-A.2</b>	<b>Energy Expenditure Estimation with Wearable Accelerometers .....</b>	<b>5</b>
	Mitja Luštrek, Božidara Cvetković, Simon Kozina, <i>Jožef Stefan Institute</i>	
11:16		
<b>A1L-A.3</b>	<b>A 150nW CMOS Novel Temperature Sensor for Remote Patient Monitoring Based on an Auto-Resonant Active Inductor Architecture .....</b>	<b>9</b>
	E. Fernández, <i>LORTEK-IK4 and Tecnun (University of Navarra)</i> ; H. Solar, J. de No, I. Gutierrez, R. Berenguer, <i>CEIT-IK4 and Tecnun (University of Navarra)</i>	
11:34		
<b>A1L-A.4</b>	<b>Combined NIRS-EEG Remote Recordings for Epilepsy and Stroke Real-Time Monitoring .....</b>	<b>13</b>
	Mohamad Sawan, Muhammad T. Salam, Sebastien Gelin, Jerome Le Lan, Frédéric Lesage, <i>École Polytechnique de Montréal</i> ; Dang K. Nguyen, <i>Centre Hospitalier de l'Université de Montréal</i>	
<b>A1L-B</b>	<b>VLSI for Communications</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room E1	
Chair(s)	Dong S. Ha, <i>Virginia Polytechnic Institute &amp; State University</i> Zhiyuan Yan, <i>Lehigh University</i>	
10:40		
<b>A1L-B.1</b>	<b>A Memory-Efficient Continuous-Flow FFT Processor for WiMAX Application .....</b>	<b>17</b>
	Shen-Jui Huang, Sau-Gee Chen, <i>National Chiao Tung University</i>	
10:58		
<b>A1L-B.2</b>	<b>High-Speed Tournament Givens Rotation-Based QR Decomposition Architecture for MIMO Receiver .....</b>	<b>21</b>
	Min-Woo Lee, Ji-Hwan Yoon, Jongsun Park, <i>Korea University</i>	
11:16		
<b>A1L-B.3</b>	<b>A General Matrix Processing Unit for Embedded System .....</b>	<b>B#5</b>
	Bin Zhang, Kuizhi Mei, Nanning Zheng, <i>Xi'an Jiaotong University</i>	
11:34		
<b>A1L-B.4</b>	<b>High Performance Compressive Sensing Reconstruction Hardware with QRD Process .....</b>	<b>29</b>
	Jerome L.V.M. Stanislaus, Tinoosh Mohsenin, <i>University of Maryland</i>	
11:52		
<b>A1L-B.5</b>	<b>Dynamic Partial Reconfigurable FFT/IFFT Pruning for OFDM Based Cognitive Radio ....</b>	<b>33</b>
	C. Vennila, Kumar Palaniappan CT, Kodati Vamsi Krishna, G. Lakshminarayanan, <i>National Institute of Technology</i> ; Seok-Bum Ko, <i>University of Saskatchewan</i>	

<b>A1L-C</b>	<b>FIR &amp; IIR Digital Filters</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room E2	
Chair(s)	Yong Ching Lim, <i>Nanyang Technological University</i> M. Omair Ahmad, <i>Concordia University</i>	
10:40		
<b>A1L-C.1</b>	<b>A Novel Digital IIR Filter Design Strategy - Structure-Based Discrete Coefficient Filters</b> .....	<b>37</b>
	Gang Li, Chaogeng Huang, Hong Xu, <i>Zhejiang University of Technology</i> ; Yong Ching Lim, <i>Nanyang Technological University</i>	
10:58		
<b>A1L-C.2</b>	<b>Efficient Design of Sparse FIR Filters in WLS Sense</b> .....	<b>41</b>
	Aimin Jiang, <i>Hohai University</i> ; Hon Keung Kwan, <i>University of Windsor</i>	
11:16		
<b>A1L-C.3</b>	<b>Design of High Order and Wide Coefficient Wordlength Multiplierless FIR Filters with Low Hardware Cost Using Genetic Algorithm</b> .....	<b>45</b>
	Wen Bin Ye, Ya Jun Yu, <i>Nanyang Technological University</i>	
11:34		
<b>A1L-C.4</b>	<b>Pipelined Adder Graph Optimization for High Speed Multiple Constant Multiplication</b> ..	<b>49</b>
	Martin Kumm, Peter Zipf, <i>University of Kassel</i> ; Mathias Faust, Chip-Hong Chang, <i>Nanyang Technological University</i>	
11:52		
<b>A1L-C.5</b>	<b>Broadband Beamforming Using Nested Planar Arrays and 3D FIR Frustum Filters</b> .....	<b>53</b>
	Iman Moazzen, Panajotis Agathoklis, <i>University of Victoria</i>	
<b>A1L-D</b>	<b>Sigma Delta Circuits I</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room E3	
Chair(s)	Mohamad Sawan, <i>Ecole Polytechnique de Montreal</i>	
10:40		
<b>A1L-D.1</b>	<b>STF Behaviour in Optimised for ELD Cascaded CT Delta-Sigma Modulators</b> .....	<b>57</b>
	Andrew C. R. Angus, H. Martin Reekie, <i>The University of Edinburgh</i>	
10:58		
<b>A1L-D.2</b>	<b>14-Bit DR, 20 kHz BW, 2-2 MASH SI-Sigma-Delta Modulator Using Low-Distortion Feedforward Topology</b> .....	<b>61</b>
	Rafael T. Blumer, Cesar A. Prior, João B. Martins, <i>Federal University of Santa Maria</i>	
11:16		
<b>A1L-D.3</b>	<b>A 10MHz BW 78dB DR CT Sigma-Delta Modulator with Novel Switched High Linearity VCO-Based Quantizer</b> .....	<b>65</b>
	Tao He, Yang Jiang, Yun Du, Sai-Weng Sin, Seng-Pan U, Rui. P. Martins, <i>University of Macau</i>	
11:34		
<b>A1L-D.4</b>	<b>A Wide Output Range, Mismatch Tolerant Sigma Delta DAC for Digital PLL in 90nm CMOS</b> .....	<b>69</b>
	Anant S Kamath, Biman Chattopadhyay, <i>Texas Instruments India Pvt. Ltd.</i>	
11:52		
<b>A1L-D.5</b>	<b>An Error Estimation Technique for Lowpass and Bandpass Delta-Sigma ADC Feedback DACs Using a Residual Test Signal</b> .....	<b>73</b>
	Pascal Witte, John G. Kauffman, Timon Brückner, Joachim Becker, Maurits Ortmanns, <i>University of Ulm</i>	

<b>A1L-E</b>	<b>Cryptography and Security for Communications Systems</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room E4	
Chair(s)	Maire O'Neill, <i>Queen's University Belfast</i> Pramod Kumar Meher, <i>A-STAR, Institute for Infocomm Research</i>	
10:40		
<b>A1L-E.1</b>	<b>Hardware Implementation of High Throughput RC4 Algorithm .....</b>	<b>77</b>
	Thi Hong Tran, Leonardo Lanante, Yuhei Nagao, Masayuki Kurosaki, Hiroshi Ochi, <i>Kyushu Institute of Technology</i>	
10:58		
<b>A1L-E.2</b>	<b>Power-Security Trade-Off in Multi-Level Power Analysis Countermeasures for FSR-Based Stream Ciphers .....</b>	<b>81</b>
	Shohreh Sharif Mansouri, Elena Dubrova, <i>KTH - Royal Institute of Technology</i>	
11:16		
<b>A1L-E.3</b>	<b>Statistical Screening for IC Trojan Detection .....</b>	<b>85</b>
	Youngjune Gwon, H. T. Kung, Dario Vlah, <i>Harvard University</i> ; Keng-Yen Huang, Yi-Min Tsai, <i>National Taiwan University</i>	
11:34		
<b>A1L-E.4</b>	<b>Low-Latency Area-Delay-Efficient Systolic Multiplier over <math>GF(2^m)</math> for a Wider Class of Trinomials Using Parallel Register Sharing .....</b>	<b>89</b>
	Jiafeng Xie, Jianjun He, <i>Central South University</i> ; Pramod Kumar Meher, <i>Institute for Infocomm Research</i>	
11:52		
<b>A1L-E.5</b>	<b>High Performance Prime Field Multiplication for GPU .....</b>	<b>93</b>
	Karl Leboeuf, Roberto Muscedere, Majid Ahmadi, <i>University of Windsor</i>	
<b>A1L-F</b>	<b>Biomedical and Genomic Signal Processing &amp; Bioimaging Technology I</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room E7	
Chair(s)	Edmund Lam, <i>University of Hong Kong</i> Kea-Tiong Samuel Tang, <i>National Tsing Hua University</i>	
10:40		
<b>A1L-F.1</b>	<b>Exploiting Stable Features for Iris Recognition of Defocused Images .....</b>	<b>97</b>
	Bo Liu, Weiqi Yuan, <i>Shenyang University of Technology</i> ; Siew-Kei Lam, Thambipillai Srikanthan, <i>Nanyang Technological University</i>	
10:58		
<b>A1L-F.2</b>	<b>Cell Segmentation and NC Ratio Analysis of Third Harmonic Generation Virtual Biopsy Images Based on Marker-Controlled Gradient Watershed Algorithm .....</b>	<b>101</b>
	Huan-Hsiang Lin, Chun-Fu Chen, Gwo Giun (Chris) Lee, <i>National Cheng Kung University</i> ; Ming-Rung Tsai, Chi-Kuang Sun, <i>National Taiwan University</i> ; Szu-Yu Chen, <i>National Central University</i> ; Yi-Hua Liao, <i>National Taiwan University</i>	
11:16		
<b>A1L-F.3</b>	<b>A Second-Generation Imaging System for Freely Moving Animals .....</b>	<b>105</b>
	Joon Hyuk Park, Vincent Pieribone, <i>Yale University</i> ; Jelena Platisa, <i>John B. Pierce Laboratory</i> ; Eugenio Culurciello, <i>Purdue University</i>	
11:34		
<b>A1L-F.4</b>	<b>A Low-Power Subsample-Based Image Compression Algorithm for Capsule Endoscopy .....</b>	<b>109</b>
	Atahar Mostafa, Khan Wahid, Seok-Bum Ko, <i>University of Saskatchewan</i>	
11:52		
<b>A1L-F.5</b>	<b>Design of Orthogonal Coded Excitation for Synthetic Aperture Imaging in Ultrasound Systems .....</b>	<b>113</b>
	Ming Yang, Chaitali Chakrabarti, <i>Arizona State University</i>	

<b>A1L-G</b>	<b>New Directions in Digital CAD and Verification</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 307A	
Chair(s)	Behrooz Nowrouzian, <i>University of Alberta</i> Shih-Hsu Huang, <i>Chung Yuan Christian University</i>	
10:40		
<b>A1L-G.1</b>	<b>An Event-Driven Simulator for Throughput Analysis and Optimization of Data-Driven Asynchronous Pipelines .....</b>	<b>B#5</b>
	Hongguang Ren, Zhiying Wang, Wei Shi, <i>National University of Defense Technology</i>	
10:58		
<b>A1L-G.2</b>	<b>Reducing Configuration Contexts for Coarse-Grained Reconfigurable Architecture ...</b>	<b>121</b>
	Shouyi Yin, Chongyong Yin, Leibo Liu, Min Zhu, Yansheng Wang, Shaojun Wei, <i>Tsinghua University</i>	
11:16		
<b>A1L-G.3</b>	<b>Post-Silicon Skew Tuning Algorithm Utilizing Setup and Hold Timing Tests .....</b>	<b>125</b>
	Mineo Kaneko, Jian Li, <i>Japan Advanced Institute of Science and Technology</i>	
11:34		
<b>A1L-G.4</b>	<b>Modeling Discrete Event System with Distributions Using SystemVerilog .....</b>	<b>129</b>
	Mani Paret Jomu George, Otmame Ait Mohamed, <i>Concordia University</i>	
<b>A1L-H</b>	<b>Video Coding Implementation and Optimization</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 307B	
Chair(s)	Yo-Sung Ho, <i>Gwangju Institute of Science and Technology</i> Shipeng Li, <i>Microsoft Research Asia</i>	
10:40		
<b>A1L-H.1</b>	<b>Complexity-Reduced Geometry Partition Search and High Efficiency Prediction for Video Coding .....</b>	<b>133</b>
	Qifei Wang, <i>Tsinghua University</i> ; Ming-Ting Sun, <i>University of Washington</i> ; Gary J. Sullivan, Jin Li, <i>Microsoft Corporation</i>	
10:58		
<b>A1L-H.2</b>	<b>A Novel Slepian-Wolf Decoding Algorithm Exploiting Geometric Regularity Constraints with Anisotropic MRF Modeling .....</b>	<b>137</b>
	Yongsheng Zhang, Hongkai Xiong, <i>Shanghai Jiao Tong University</i> ; Chang Wen Chen, <i>State University of New York at Buffalo</i>	
11:16		
<b>A1L-H.3</b>	<b>Picture Orientation Information in Video Compression .....</b>	<b>141</b>
	Danny Hong, Jill Boyce, Stephan Wenger, <i>Hackensack</i>	
11:34		
<b>A1L-H.4</b>	<b>Content-Aware Layered Compound Video Compression .....</b>	<b>145</b>
	Shiqi Wang, Wen Gao, <i>Peking University</i> ; Jingjing Fu, Yan Lu, Shipeng Li, <i>Microsoft Research Asia</i>	
11:52		
<b>A1L-H.5</b>	<b>Efficient Video Compression Methods for a Lightweight Tele-Immersive Video Chat System .....</b>	<b>149</b>
	Viet-Anh Nguyen, Jiangbo Lu, <i>Advanced Digital Sciences Center</i> ; Minh N. Do, <i>University of Illinois</i>	

<b>A1L-J</b>	<b>Chaotic Circuits and Systems</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 307C	
Chair(s)	Jinhu Lu, <i>MIT University</i> Weixing Zheng, <i>University of Western Sydney</i>	
10:40		
<b>A1L-J.1</b>	<b>3D Reconstruction from Planar Points: a Candidate Method for Authentication of Fingerprint Images Captured by Mobile Devices .....</b>	<b>153</b>
	Yao Chen, <i>Chinese Academy of Sciences</i> ; Fengling Han, Haibin Liu, Jinhu Lü, <i>MIT University</i>	
10:58		
<b>A1L-J.2</b>	<b>Chaotic Symbolic Dynamics Modulation in MIMO Systems.....</b>	<b>157</b>
	Georges Kaddoum, François Gagnon, <i>Ecole de technologie supérieure</i> ; Mai Vu, <i>McGill University</i>	
11:16		
<b>A1L-J.3</b>	<b>Nonlinear Dynamics and Limit Cycle Bifurcation of a Fractional-Order Three-Node Recurrent Neural Network .....</b>	<b>161</b>
	Min Xiao, <i>Nanjing Xiaozhuang University</i> ; Wei Xing Zheng, <i>University of Western Sydney</i>	
11:34		
<b>A1L-J.4</b>	<b>Cluster Synchronization and Controllability of Complex Multi-Agent Networks .....</b>	<b>165</b>
	Weiguo Xia, Ming Cao, <i>University of Groningen</i>	
11:52		
<b>A1L-J.5</b>	<b>Exploring Evolutionary Dynamics in a Class of Structured Populations .....</b>	<b>169</b>
	Shaolin Tan, Jinhu Lü, <i>Chinese Academy of Sciences</i> ; Xinghuo Yu, <i>MIT University</i> ; David Hill, <i>The University of Sydney</i>	
<b>A1L-K</b>	<b>Problems and Solutions on Hybrid Kilo/Mega Core Architectures</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 308A	
Chair(s)	Peter Szolgay, <i>Hungarian Academy of Sciences</i> Xavier Vilasis-Cardona, <i>La Salle-Ramon Lull University</i>	
10:40		
<b>A1L-K.1</b>	<b>A Robot Swarm as a Cellular Multicore Processor .....</b>	<b>173</b>
	J.Albo-Canals, J. Navarro, D. Serra-Puig, X.Vilas is-Cardona, <i>Universitat Ramon Llull</i>	
10:58		
<b>A1L-K.2</b>	<b>Hybrid Processor Population for Odor Processing .....</b>	<b>177</b>
	Tuba Ayhan, Ramazan Yeniçeri, Selman Ergünay, Müs tak Erhan Yalçın, <i>Istanbul Technical University</i>	
11:16		
<b>A1L-K.3</b>	<b>Novel Algorithm for the Real Time Multi-Feature Detection in Laser Beam Welding ...</b>	<b>181</b>
	Nicolosi Leonardo, Tetzlaff Ronald, <i>Technische Universität Dresden</i> ; Blug Andreas, Höfler Heinrich, <i>Fraunhofer-Institut für Physikalische Messtechnik IPM</i> ; Abt Felix, Heider Andreas, <i>IFSW Institut für Strahlwerkzeuge</i>	
11:34		
<b>A1L-K.4</b>	<b>A GPU Implementation of Color Digital Halftoning Using the Direct Binary Search Algorithm .....</b>	<b>185</b>
	Kartheek Chandu, Mikel Stanich, <i>Ricoh Production Print Solutions</i> ; Barry Trager, Chai Wah Wu, <i>IBM T. J. Watson Research Center</i>	
11:52		
<b>A1L-K.5</b>	<b>Volume and Power Optimized High-Performance System for UAV Collision Avoidance .....</b>	<b>189</b>
	Zoltán Nagy, András Kiss, Á kos Zarándy, Bálint Vanek, Tamás Péni, József Bokor, Tamás Roska, <i>Computer and Automation Research Institute of the Hungarian Academy of Sciences</i> ; Tamás Zsedrovits, <i>Pázmány Péter Catholic University</i>	

<b>A1L-L</b>	<b>Low Power Amplifiers</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 308B	
Chair(s)	Randall Geiger, <i>Iowa State University</i>	
10:40		
<b>A1L-L.1</b>	<b>An Ultra-Low-Power Front-End Neural Interface with Automatic Gain for Uncalibrated Monitoring .....</b>	<b>193</b>
	Sivylla E. Paraskevopoulou, Timothy G. Constandinou, <i>Imperial College London</i>	
10:58		
<b>A1L-L.2</b>	<b>A Sub-0.5V, 1.5<math>\mu</math>W Rail-to-Rail Constant gm Opamp and Its Filter Application .....</b>	<b>197</b>
	Edward K.F. Lee, <i>Alfred Mann Foundation</i>	
11:16		
<b>A1L-L.3</b>	<b>Performance Enhanced Op-Amp for 65nm CMOS Technologies and Below .....</b>	<b>201</b>
	Aldo Peña Perez, Franco Maloberti, <i>University of Pavia</i>	
11:34		
<b>A1L-L.4</b>	<b>Settling Time and Noise Optimization of a Three-Stage Operational Transconductance Amplifier .....</b>	<b>205</b>
	Siddharth Seth, Boris Murmann, <i>Stanford University</i>	
11:52		
<b>A1L-L.5</b>	<b>A 1.57mW 99dB Omega CMOS Transimpedance Amplifier for VHF Micromechanical Reference Oscillators .....</b>	<b>209</b>
	Ming-Huang Li, Cheng-Syun Li, Li-Jen Hou, Yu-Chia Liu, Sheng-Shian Li, <i>National Tsing Hua University</i>	
<b>A1L-M</b>	<b>Modeling, Dynamics and Control of Power Converters</b>	
Time	Monday, May 21, 2012 (10:40 - 12:10)	
Place	Room 308C	
Chair(s)	Chi K. Michael Tse, <i>The Hong Kong Polytechnic University</i> Hiroo Sekiya, <i>Chiba University</i>	
10:40		
<b>A1L-M.1</b>	<b>Line-Frequency Instability of Three-Phase PFC Power Supplies Connecting to Non-Ideal Power Grid .....</b>	<b>213</b>
	Meng Huang, Chi K. Tse, Siu-Chung Wong, <i>The Hong Kong Polytechnic University</i>	
10:58		
<b>A1L-M.2</b>	<b>Losses Analysis and Low Standby Losses Quasi-Resonant Flyback Converter Design .....</b>	<b>217</b>
	Guan-Chun Huang, Tsorng-Juu Liang, <i>National Cheng Kung University</i>	
11:16		
<b>A1L-M.3</b>	<b>Dynamic Sawtooth Compensation (DSC) Technique with Self-Tuning Mode Selection (SMS) for Current-Mode Buck-Boost Converter .....</b>	<b>221</b>
	Yi-Ping Su, Shih-Wei Wang, Yu-Huei Lee, Ke-Horng Chen, <i>National Chiao Tung University</i>	
11:34		
<b>A1L-M.4</b>	<b>Compensation Technique for Optimized Efficiency and Voltage Controllability of IPT Systems .....</b>	<b>225</b>
	Wei Zhang, Siu-Chung Wong, Chi K. Tse, <i>The Hong Kong Polytechnic University</i> ; Qianhong Chen, <i>Nanjing University of Aeronautics and Astronautics</i>	

<b>A2L-A</b>	<b>Wireless Circuits and Systems II</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 300	
Chair(s)	Jorge Fernandes, <i>IST Portugal</i>	
13:40		
<b>A2L-A.1</b>	<b>Co-Simulation of RFIC with Bondwire Antenna via Retarded PEEC Method .....</b>	<b>229</b>
	Y. Zhang, N. H. W. Fong, N. Wong, <i>The University of Hong Kong</i> ;	
	D. C. W. Ng, <i>Hong Kong Applied Science and Technology Research Institute</i>	
13:58		
<b>A2L-A.2</b>	<b>An IR-UWB Transmitter with Digital Pulse Duration Control .....</b>	<b>233</b>
	David Correia, Marcelo dal Alba, Miguel A. Martins, Taimur G. Rabuske, Jorge R. Fernandes,	
	<i>INESC-ID / Instituto Superior Técnico</i> ;	
	Cesar Rodrigues, <i>Universidade Federal de Santa Maria</i>	
14:16		
<b>A2L-A.3</b>	<b>Transformer Feedback Based CMOS Amplifiers .....</b>	<b>237</b>
	Venumadhav Bhagavatula, Jacques C. Rudell, <i>University of Washington</i>	
14:34		
<b>A2L-A.4</b>	<b>Systematic Analysis of the Impact of Mixing Locality on Mixing-DAC Linearity for Multicarrier GSM .....</b>	<b>241</b>
	Elbert Bechthum, Georgi Radulov, Arthur van Roermund, <i>Eindhoven University of Technology</i> ;	
	J. Briaire, Govert Geelen, <i>NXP Semiconductors</i>	
14:52		
<b>A2L-A.5</b>	<b>A Novel Low Gate-Count Serializer Topology with Multiplexer-Flip-Flops .....</b>	<b>245</b>
	Wei-Yu Tsai, Ching-Te Chiu, Jen-Ming Wu, Shawn S.H. Hsu, Yar-Sun Hsu, Ying-Fang Tsao,	
	<i>National Tsing Hua University</i>	
<b>A2L-B</b>	<b>System Design Methodology</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room E1	
Chair(s)	Mohsin M. Jamali, <i>University of Toledo</i>	
	Mircea R. Stan, <i>University of Virginia</i>	
13:40		
<b>A2L-B.1</b>	<b>NetVP: a System-Level Network Virtual Platform for Network Accelerator Development .....</b>	<b>249</b>
	Chen-Chieh Wang, Sheng-Hsin Lo, Yao-Ning Liu, Chung-Ho Chen,	
	<i>National Cheng Kung University</i>	
13:58		
<b>A2L-B.2</b>	<b>CoRaS: a Multiprocessor Key Corruption and Random Round Swapping for Power Analysis Side Channel Attacks: a DES Case Study .....</b>	<b>253</b>
	Jude Angelo Ambrose, Aleksandar Ignjatovic, Sri Parameswaran, <i>University of New South Wales</i>	
14:16		
<b>A2L-B.3</b>	<b>Compiler and Microarchitectural Approaches for Register File Thermal Management .....</b>	<b>257</b>
	Ingoo Heo, Sanghyun Park, Yunheung Paek, <i>Seoul National University</i>	
14:34		
<b>A2L-B.4</b>	<b>A Power Management Architecture for Fast Per-Core DVFS in Heterogeneous MPSoCs .....</b>	<b>261</b>
	Sebastian Höppner, Chenming Shao, Holger Eisenreich, Georg Ellguth, Mario Ander,	
	René Schüffny, <i>Technische Universität Dresden</i>	
14:52		
<b>A2L-B.5</b>	<b>Two-Level Configuration for FPGA: a New Design Methodology Based on a Computing Fabric .....</b>	<b>265</b>
	Mathieu Allard, Patrick Grogan, Yvon Savaria, Jean-Pierre David,	
	<i>Ecole Polytechnique de Montreal</i>	



<b>A2L-C</b>	<b>Compressive Sensing</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room E2	
Chair(s)	Wei Ping Zhu, <i>Concordia University</i> Mrityunjay Chakraborty, <i>Indian Institute of Technology</i>	
13:40		
<b>A2L-C.1</b>	<b>Hardware-Efficient Random Sampling of Fourier-Sparse Signals .....</b>	<b>269</b>
	Patrick Maechler, Norbert Felber, Hubert Kaeslin, <i>ETH Zurich</i> ; Andreas Burg, <i>École Polytechnique Fédérale de Lausanne</i>	
13:58		
<b>A2L-C.2</b>	<b>Compressive Sensing Based Classification of Intramuscular Electromyographic Signals .....</b>	<b>273</b>
	Keith Wilhelm, Yehia Massoud, <i>University of Alabama at Birmingham</i>	
14:16		
<b>A2L-C.3</b>	<b>Reconstruction of Block-Sparse Signals by Using an l2/P-Regularized Least-Squares Algorithm .....</b>	<b>277</b>
	Jeevan K. Pant, Wu-Sheng Lu, Andreas Antoniou, <i>University of Victoria</i>	
14:34		
<b>A2L-C.4</b>	<b>Reconstruction of Compressively Sensed Complex-Valued Terahertz Data .....</b>	<b>281</b>
	A. Khwaja, X. -P. Zhang, <i>Ryerson University</i>	
14:52		
<b>A2L-C.5</b>	<b>On Sparsity Issues in Compressive Sensing Based Speech Enhancement .....</b>	<b>285</b>
	Dalei Wu, Wei-Ping Zhu, M.N.S. Swamy, <i>Concordia University</i>	
<b>A2L-D</b>	<b>Sigma Delta Circuits II</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room E3	
Chair(s)	Jie George Yuan, <i>Hong Kong University of Science &amp; Technology</i>	
13:40		
<b>A2L-D.1</b>	<b>A 1-V 1.1-MHz BW Digitally Assisted Multi-Bit Multi-Rate Hybrid CT Sigma-Delta with 78-dB SFDR .....</b>	<b>289</b>
	Oscar Belotti, Edoardo Bonizzoni, Franco Maloberti, <i>University of Pavia</i>	
13:58		
<b>A2L-D.2</b>	<b>Power-Scalable Multi-Mode Reconfigurable Continuous-Time Lowpass/Quadrature Bandpass Sigma-Delta Modulator for Zero/Low-IF Receivers .....</b>	<b>293</b>
	Yang Xu, Baoyong Chi, Zhihua Wang, <i>Tsinghua University</i>	
14:16		
<b>A2L-D.3</b>	<b>Digitally-Switched Resonators for Bandpass Integrated Transmission Line Sigma Delta Modulators .....</b>	<b>297</b>
	A. Zahabi, F. Jamal, J. Becker, M. Anis, M. Ortmanns, <i>University of Ulm</i>	
14:34		
<b>A2L-D.4</b>	<b>Design Methodology for Sigma-Delta Modulators Based on a Genetic Algorithm Using Hybrid Cost Functions .....</b>	<b>301</b>
	J. L. A. de Melo, B. Nowacki, N. Paulino, J. Goes, <i>Universidade Nova de Lisboa</i>	
14:52		
<b>A2L-D.5</b>	<b>A Power-Optimized Reconfigurable CT Delta-Sigma Modulator in 65nm CMOS .....</b>	<b>305</b>
	Rui Wang, Xiaoke Wen, Jinghong Chen, <i>Southern Methodist University</i> ; Kamran Azadet, <i>LSI Corporation</i> ; Changzhi Li, <i>Texas Tech University</i>	

<b>A2L-E</b>	<b>Wireline Communications I</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room E4	
Chair(s)	Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i> Sangwoong Yoon, <i>Kyunghee University</i>	
13:40		
<b>A2L-E.1</b>	<b>A 10Gbps CDR Based on Phase Interpolator for Source Synchronous Receiver in 65nm CMOS</b> .....	<b>309</b>
	Shijie Hu, Chen Jia, Ke Huang, Chun Zhang, Xuqiang Zheng, Zhihua Wang, <i>Tsinghua University</i>	
13:58		
<b>A2L-E.2</b>	<b>A 9.6Gb/s 5+1-Lane Source Synchronous Transmitter in 65nm CMOS Technology</b> .....	<b>313</b>
	Ke Huang, Chen Jia, Xuqiang Zheng, Ni Xu, Chun Zhang, Woogeun Rhee, Zhihua Wang, <i>Tsinghua University</i>	
14:16		
<b>A2L-E.3</b>	<b>A 25 Gb/s Full-Rate CDR Circuit Based on Quadrature Phase Generation in Data Path</b> .....	<b>317</b>
	Arash Zargaran-Yazd, Shahriar Mirabbasi, <i>University of British Columbia</i>	
14:34		
<b>A2L-E.4</b>	<b>A 20 Gbps 1-Tap Decision Feedback Equalizer with Unfixed Tap Coefficient</b> .....	<b>321</b>
	Yong-Hun Kim, Lee-Sup Kim, <i>Korea Advanced Institute of Science and Technology</i>	
14:52		
<b>A2L-E.5</b>	<b>A Class of Downsampled Floating Tap DFE Architectures with Application to Serial Links</b> .....	<b>325</b>
	Pervez M. Aziz, Hiroshi Kimura, Amaresh V. Malipatil, Shiva Kotagiri, <i>LSI Corporation</i>	
<b>A2L-F</b>	<b>Biomedical and Genomic Signal Processing &amp; Bioimaging Technology II</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room E7	
Chair(s)	Joseph Changm, <i>Nanyang Technological University</i> Robert Newcomb, <i>University of Maryland</i>	
13:40		
<b>A2L-F.1</b>	<b>Iris Feature Extraction Based on Gray-Scale Morphological Skeleton</b> .....	<b>329</b>
	Nozomi Hayashi, Akira Taguchi, <i>Tokyo City University</i>	
13:58		
<b>A2L-F.2</b>	<b>The Design of an in-Line Accelerometer-Based Inclination Sensing System</b> .....	<b>333</b>
	Xu Yao, Guangmin Sun, <i>Beijing University of Technology</i> ; Wen-Yen Lin, Wen-Cheng Chou, Kin Fong Lei, Ming-Yih Lee, <i>Chang Gung University</i>	
14:16		
<b>A2L-F.3</b>	<b>Improved Cole-Cole Parameter Extraction from Frequency Response Using Least Squares Fitting</b> .....	<b>337</b>
	Todd J. Freeborn, Brent Maundy, <i>University of Calgary</i> ; Ahmed Elwakil, <i>University of Sharjah</i>	
14:34		
<b>A2L-F.4</b>	<b>Real-Time Obstructive Sleep Apnea Detection Based on ECG Derived Respiration Signal</b> .....	<b>341</b>
	Teng-chieh Huang, Hsiao-yu Chen, Wai-Chi Fang, <i>National Chiao Tung University</i>	
14:52		
<b>A2L-F.5</b>	<b>Non-Linear Filter Based Outer Product Expansion with Reference Signal for EEG Analysis</b> .....	<b>345</b>
	Akitoshi Itai, <i>Chubu University</i> ; Arao Funase, <i>Nagoya Institute of Technology</i> ; Andrzej Cichocki, <i>Brain Science Institute RIKEN</i> ; Hiroshi Yasukawa, <i>Aichi Prefectural University</i>	

<b>A2L-G</b>	<b>Analog/Mixed Signal and Layout Optimization</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 307A	
Chair(s)	Miguel Martins, <i>INESC-ID</i> Gwan Choi, <i>Texas A&amp;M University</i>	
13:40		
<b>A2L-G.1</b>	<b>NBTI-Aware Dual Threshold Voltage Assignment for Leakage Power Reduction .....</b>	<b>349</b>
	Wen-Pin Tu, Shih-Wei Wu, Shih-Hsu Huang, Mely Chen Chi, <i>Chung Yuan Christian University</i>	
13:58		
<b>A2L-G.2</b>	<b>Analog Layout Retargeting with Geometric Programming and Constrains Symbolization Method .....</b>	<b>353</b>
	Shaoxi Wang, Xiaoya Fan, Shengbing Zhang, <i>Northwestern Polytechnical University</i> ; Jing Ming-e, <i>Fudan University</i>	
14:16		
<b>A2L-G.3</b>	<b>Thermal Aware Timing Budget for Buffer Insertion in Early Stage of Physical Design .....</b>	<b>357</b>
	Minbeom Kim, Byung-Gyu Ahn, Jaehwan Kim, Bongki Lee, Jongwha Chong, <i>Hanyang University</i>	
14:34		
<b>A2L-G.4</b>	<b>Damping the Cavity-Mode Anti-Resonances' Peaks on a Power Plane by Swarm Intelligence Algorithms .....</b>	<b>361</b>
	Jai Narayan Tripathi, Jayanta Mukherjee, <i>IIT Bombay</i> ; Nitin Kumar Chhabra, Raj Kumar Nagpal, Rakesh Malik, <i>STMicroelectronics Pvt. Ltd.</i>	
14:52		
<b>A2L-G.5</b>	<b>A Power-Efficient Sizing Methodology of SAR ADCs .....</b>	<b>365</b>
	Chun-Po Huang, Soon-Jyh Chang, Guan-Ying Huang, Cheng-Wu Lin, <i>National Cheng-Kung University</i>	
<b>A2L-H</b>	<b>Multiview and 3D Visual Signal Coding</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 307B	
Chair(s)	Oscar Au, <i>Hong Kong University of Science &amp; Technology</i> Yo-Sung Ho, <i>Gwangju Institute of Science and Technology</i>	
13:40		
<b>A2L-H.1</b>	<b>Adaptive Depth Map Filter for Blocking Artifacts Removal and Edge Preserving .....</b>	<b>369</b>
	Wei Hu, Oscar C. Au, Lin Sun, Wenxiu Sun, Lingfeng Xu, Yujun Li, <i>Hong Kong University of Science and Technology</i>	
13:58		
<b>A2L-H.2</b>	<b>High-Quality View Synthesis Algorithm and Architecture for 2D to 3D Conversion .....</b>	<b>373</b>
	Yeong-Kang Lai, Yu-Fan Lai, Jung-Wei Lin, <i>National Chung Hsing University</i>	
14:16		
<b>A2L-H.3</b>	<b>Multiview Texture Coding and Free Viewpoint Image Synthesis for Mesh-Based 3D Video Transmission .....</b>	<b>377</b>
	Jui-Chiu Chiang, Ping-He Hou, Wen-Nung Lie, <i>National Chung Cheng University</i> ; Kai-Che Liu, <i>Chang Bing Show Chwan Memorial Hospital</i>	
14:34		
<b>A2L-H.4</b>	<b>Low Complexity Image Rectification for Multi-View Video Coding .....</b>	<b>381</b>
	Minsu Choi, Jinsang Kim, Won-Kyung Cho, Yunmo Chung, <i>Kyung Hee University</i>	
14:52		
<b>A2L-H.5</b>	<b>A New Stereo Packing Format Based on Checkerboard Sub-Sampling for Efficient Stereo Video Coding .....</b>	<b>385</b>
	An-Ti Chiang, Hung-Ming Wang, Jar-Ferr Yang, Jhing-Fa Wang, <i>National Cheng Kung University</i>	

<b>A2L-J</b>	<b>Bifurcation Analysis and Chaos Control</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 307C	
Chair(s)	Guanrong Chen, <i>City University of Hong Kong</i> Maciej J. Ogorzalek, <i>Jagiellonian University</i>	
13:40		
<b>A2L-J.1</b>	<b>Bifurcation in Standalone Photovoltaic-Battery Hybrid Power Systems .....</b>	<b>389</b>
	Xiaoling Xiong, Xinbo Ruan, <i>Nanjing University of Aeronautics and Astronautics</i> ; Chi K. Tse, <i>The Hong Kong Polytechnic University</i>	
13:58		
<b>A2L-J.2</b>	<b>Application of Chaotic Maps for Simultaneous Lossy Image Compression and Encryption .....</b>	<b>393</b>
	Ching-Hung Yuen, Oi-Yan Lui, Kwok-Wo Wong, <i>City University of Hong Kong</i>	
14:16		
<b>A2L-J.3</b>	<b>Bifurcations and Chaos in Electrostatic Vibration Energy Harvesters .....</b>	<b>397</b>
	Elena Blokhina, Rhona Wade, Orla Feely, <i>University College Dublin</i> ; Dimitri Galayko, <i>UPMC Sorbonnes Universités</i> ; Philippe Basset, <i>Université Paris-Est</i>	
14:34		
<b>A2L-J.4</b>	<b>Trapping Region for the Double Scroll Attractor .....</b>	<b>401</b>
	Zbigniew Galias, <i>AGH University of Science and Technology</i>	
14:52		
<b>A2L-J.5</b>	<b>Energy Saving Controlling Chaos .....</b>	<b>405</b>
	Daisuke Ito, Tetsushi Ueta, <i>Tokushima University</i> ; Jun'ichi Imura, <i>Tokyo Institute of Technology</i> ; Kazuyuki Aihara, <i>University of Tokyo</i>	
<b>A2L-K</b>	<b>ECC and Signal Processing for Flash Memory</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 308A	
Chair(s)	Jun Jin Kong, <i>Samsung Electronics</i>	
13:40		
<b>A2L-K.1</b>	<b>Error Control Coding and Signal Processing for Flash Memories .....</b>	<b>409</b>
	Beomkyu Shin, Changkyu Seol, Jung-Soo Chung, Jun Jin Kong, <i>Samsung Electronics</i>	
13:58		
<b>A2L-K.2</b>	<b>Low-Cost, Low-Power and High-Throughput BCH Decoder for NAND Flash Memory ..</b>	<b>413</b>
	Kijun Lee, Sejin Lim, Jaehong Kim, <i>Samsung Electronics</i>	
14:16		
<b>A2L-K.3</b>	<b>Improved Hard-Decision Decoding LDPC Codec IP Design .....</b>	<b>416</b>
	Daehyun Kim, Biwoong Chung, Roy E. Kim, <i>Samsung Electronics</i>	
14:34		
<b>A2L-K.4</b>	<b>Challenges and Limitations of NAND Flash Memory Devices Based on . Floating Gates .....</b>	<b>420</b>
	Byoungjun Park, Sunghoon Cho, Milim Park, Sukkwang Park, Yunbong Lee, Myoung Kwan Cho, Kun-Ok Ahn, Gihyun Bae, Sungwook Park, <i>Hynix Semiconductor Inc.</i>	
14:52		
<b>A2L-K.5</b>	<b>Novel Integration Technologies for Improving Reliability in NAND Flash Memory .....</b>	<b>424</b>
	Hyunyoung Shim, Myoungkwan Cho, Kunok Ahn, Gihyun Bae, Sungwook Park, <i>Hynix Semiconductor Inc.</i>	

<b>A2L-L</b>	<b>Complex Amplifiers</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 308B	
Chair(s)	Gregorio Cappuccino, <i>University of Calabria</i>	
13:40		
<b>A2L-L.1</b>	<b>Class A+ Amplifier with Controlled Positive Feedback for Discrete-Time Signal Processing Circuits</b> .....	<b>428</b>
	Hariprasath Venkatram, Taehwan Oh, Jon Guerber, Un-Ku Moon, <i>Oregon State University</i>	
13:58		
<b>A2L-L.2</b>	<b>Using Moderate Inversion to Optimize Voltage Gain, Thermal Noise, and Settling Time in Two-Stage CMOS Amplifiers</b> .....	<b>432</b>
	Yi Yang, David M. Binkley, <i>University of North Carolina at Charlotte</i> ; Changzhi Li, <i>Texas Tech. University</i>	
14:16		
<b>A2L-L.3</b>	<b>Constant and Maximum Bandwidth Feedback Amplifier with Adaptive Frequency Compensation</b> .....	<b>436</b>
	Salvatore Pennisi, <i>Università di Catania</i> ; Giuseppe Scotti, Alessandro Trifiletti, <i>Università di Roma "Sapienza" Roma</i>	
14:34		
<b>A2L-L.4</b>	<b>A Compact Linearly Tunable Low Voltage Triode OTA Using Self-Cascodes</b> .....	<b>440</b>
	John Richard E. Hizon, Esther Rodriguez-Villegas, <i>Imperial College London</i>	
<b>A2L-M</b>	<b>Power Converters for Specialized Applications</b>	
Time	Monday, May 21, 2012 (13:40 - 15:10)	
Place	Room 308C	
Chair(s)	Robert Chen-Hao Chang, <i>National Chung Hsing University</i> Tsorng-Juu Liang, <i>National Cheng Kung University</i>	
13:40		
<b>A2L-M.1</b>	<b>Switched-Capacitor DC-DC Converters with Output Inductive Filter</b> .....	<b>444</b>
	Loai Salem, Yehea Ismail, <i>Northwestern University/ Nile University</i>	
13:58		
<b>A2L-M.2</b>	<b>Fully Digital Voltage-Mode Control Based on Predictive Hysteresis Method (FDVC-PH) for DC-DC Converters</b> .....	<b>448</b>
	Ming Liu, Tatsuo Nakagawa, Kenichi Osada, <i>Hitachi, Ltd.</i>	
14:16		
<b>A2L-M.3</b>	<b>A GIDL Free Tunneling Gate Driver for a Low Power Non-Volatile Memory Array</b> .....	<b>452</b>
	Hadar Dagan, Adam Teman, Alexander Fish, <i>Ben-Gurion University of the Negev</i> ; Evgeny Pikhay, Vladislav Dayan, Yakov Roizin, <i>TowerJazz</i>	
14:34		
<b>A2L-M.4</b>	<b>A High-Speed Converter with Light-Load Improvement Circuit and Transient Detector</b> .....	<b>456</b>
	Chu-Hsiang Chia, Pui-Sun Lei, Robert Chen-Hao Chang, <i>National Chung Hsing University</i>	
14:52		
<b>A2L-M.5</b>	<b>Efficiency of Switched-Inductor DC-DC Converter ICs Across Process Technologies</b> .....	<b>460</b>
	Suhwan Kim, Gabriel A. Rincón-Mora, <i>Georgia Institute of Technology</i>	

<b>A3L-A</b>	<b>Wireless Circuits and Systems I</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 300	
Chair(s)	Byunghoo Jung, <i>Purdue University</i>	
15:30		
<b>A3L-A.1</b>	<b>An Inductorless Frequency Divider with 15GHz Locking Range Using 90nm CMOS Technology</b> .....	<b>464</b>
	Heng-Ming Hsu, Yi-Te Chou, Yo-Hao Hsu, Yue-Shiang Shu, <i>National Chung-Hsing University</i>	
15:48		
<b>A3L-A.2</b>	<b>A +21.2 dBm Out-of-Band IIP3 0.2-3GHz RF Front-End Using Impedance Translation Technique</b> .....	<b>468</b>
	Long Chen, Chuan Wang, Le Ye, Huailin Liao, Ru Huang, <i>Peking University</i> ; Chen Li, <i>Shanghai IC R&amp;D Center</i>	
16:06		
<b>A3L-A.3</b>	<b>A 0.02-to-6GHz SDR Balun-LNA Using a Triple-Stage Inverter-Based Amplifier</b> .....	<b>472</b>
	Miguel A. Martins, <i>TES Electronic Solutions</i> ; Pui-In Mak, Rui P. Martins, <i>University of Macau</i>	
16:24		
<b>A3L-A.4</b>	<b>A Robust and Large Range Optimally Mismatched RF Energy Harvester with Resonance Control Loop</b> .....	<b>476</b>
	Mark Stoopman, Wouter A. Serdijn, <i>Delft University of Technology</i> ; Kathleen Philips, <i>IMEC, Holst Centre</i>	
<b>A3L-B</b>	<b>Low Power Memory &amp; Arithmetic Circuit Design</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room E1	
Chair(s)	Vasily Moshnyaga, <i>Fukuoka University</i> Jin-Gyun Chung, <i>Chonbuk National University</i>	
15:30		
<b>A3L-B.1</b>	<b>Lower-Bits Cache for Low Power STT-RAM Caches</b> .....	<b>480</b>
	Junwhan Ahn, Kiyong Choi, <i>Seoul National University</i>	
15:48		
<b>A3L-B.2</b>	<b>Full-Custom Design of Low Leakage Data Preserving Ground Gated 6T SRAM Cells to Facilitate Single-Ended Write Operations</b> .....	<b>484</b>
	Hailong Jiao, Volkan Kursun, <i>The Hong Kong University of Science and Technology</i>	
16:06		
<b>A3L-B.3</b>	<b>Low-Power Variation-Aware Flip Flop</b> .....	<b>488</b>
	Youngkyu Jang, Changnoh Yoon, Jinsang Kim, Won-Kyung Cho, <i>Kyung Hee University</i>	
16:24		
<b>A3L-B.4</b>	<b>Energy-Delay Efficient Asynchronous-Logic 16x16-Bit Pipelined Multiplier Based on Sense Amplifier-Based Pass Transistor Logic</b> .....	<b>492</b>
	Weng-Geng Ho, Kwen-Siong Chong, Tong Lin, Bah-Hwee Gwee, Joseph S. Chang, <i>Nanyang Technological University</i>	
16:42		
<b>A3L-B.5</b>	<b>Low Power 10-Transistor Full Adder Design Based on Degenerate Pass Transistor Logic</b> .....	<b>496</b>
	Jin-Fa Lin, <i>Chao-Yang University</i> ; Yin-Tsung Hwang, <i>National Chung Hsing University</i> ; Ming-Hwa Sheu, <i>National Yunlin University of Science &amp; Technology</i>	

<b>A3L-C</b>	<b>Video Coding</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room E2	
Chair(s)	Oscar Au, <i>Hong Kong University of Science &amp; Technology</i> Wan-Chi Siu, <i>Hong Kong Polytechnic University</i>	
15:30		
<b>A3L-C.1</b>	<b>Visual-Weighted Motion Compensation Frame Interpolation with Motion Vector Refinement</b> .....	<b>500</b>
	Wei Bai, Jiaying Liu, Jie Ren, Zongming Guo, <i>Peking University</i>	
15:48		
<b>A3L-C.2</b>	<b>An Adaptive Down-Sampling Based Video Coding with Hybrid Super-Resolution Method</b> .....	<b>504</b>
	Zeng Hu, Houqiang Li, Weiping Li, <i>University of Science and Technology of China</i>	
16:06		
<b>A3L-C.3</b>	<b>A Two Level Mode Decision Algorithm for H.264 High Profile Intra Encoding</b> .....	<b>508</b>
	Cheng-Yen Chang, Cheng-An Chien, Hsiu-Cheng Chang, Jiun-In Guo, Jia-Wei Chen, <i>National Chung-Cheng University</i>	
16:24		
<b>A3L-C.4</b>	<b>Kinect-Like Depth Denoising</b> .....	<b>512</b>
	Jingjing Fu, Yan Lu, Shipeng Li, <i>Microsoft Research Asia</i> ; Shiqi Wang, <i>Peking University</i> ; Wenjun Zeng, <i>University of Missouri</i>	
<b>A3L-D</b>	<b>Sigma-Delta Converters I</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room E3	
Chair(s)	Jose M. de la Rosa, <i>Universidad de Sevilla / IMSE-CNM-CSIC</i>	
15:30		
<b>A3L-D.1</b>	<b>A Power-Scalable Concurrent Cascade 2-2-2 SC Sigma-Delta Modulator for Software Defined Radio</b> .....	<b>516</b>
	Alonso Morgado, J. Gerardo García, Sohail Asghar, Luis I. Guerrero, Rocío del Río, José M. de la Rosa, <i>IMSE-CNM</i>	
15:48		
<b>A3L-D.2</b>	<b>A 1.8 V 89.2 dB Delta-Sigma ADC for Sensor Interface with on-Chip Reference</b> .....	<b>520</b>
	Yong-Sik Kwak, Kwangsoo Kim, Gil-Cho Ahn, <i>Sogang University</i>	
16:06		
<b>A3L-D.3</b>	<b>Device Noise in Continuous-Time Delta Sigma Modulators with Switched-Capacitor Feedback DACs</b> .....	<b>524</b>
	Radha S. Rajan, Shanthi Pavan, <i>Indian Institute of Technology</i>	
16:24		
<b>A3L-D.4</b>	<b>A Simple and Efficient Dithering Method for Vector Quantizer Based Mismatch-Shaped Delta Sigma DACs</b> .....	<b>528</b>
	Arindam Sanyal, Nan Sun, <i>University of Texas at Austin</i>	
16:42		
<b>A3L-D.5</b>	<b>A Delta Sigma-Cyclic Hybrid ADC for Parallel Readout Sensor Applications</b> .....	<b>532</b>
	Min-Kyu Kim, Min-Seok Shin, Yun-Rae Jo, Jong-Boo Kim, Oh-Kyong Kwon, <i>Hanyang University</i> ; Jaseung Gou, Sangdong Yoo, <i>Hynix Semiconductor Inc.</i>	

<b>A3L-E</b>	<b>Modeling and Analysis of Communications Systems</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room E4	
Chair(s)	Zhengya Zhang, <i>University of Michigan</i> Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i>	
15:30		
<b>A3L-E.1</b>	<b>Design of FlexRay-MOST Gateway Using Static Segments and Control Messages .....</b>	<b>536</b>
	Ze-Hua Dong, Zhe-Yan Piao, In-Gul Jang, Jin-Gyun Chung, <i>Chonbuk National University</i> ; Chul-Dong Lee, <i>Korea Electronics Technology Institute</i>	
15:48		
<b>A3L-E.2</b>	<b>Dual Queue Based Rate Selecting Schedule for Throughput Enhancement in WLANs .....</b>	<b>540</b>
	Dongwan Kim, Jongsun Park, <i>Korea University</i> ; Wan-Seon Lim, <i>University of Michigan</i>	
16:06		
<b>A3L-E.3</b>	<b>QoS-Aware Network Selection for Seamless Multimedia Service .....</b>	<b>544</b>
	Shin-Hun Kang, Jae-Hyun Kim, <i>Ajou Univeristy</i>	
16:24		
<b>A3L-E.4</b>	<b>Information Theoretic Analysis of Concurrent Information Transfer and Power Gain ...</b>	<b>548</b>
	Fabian Steiner, Amine Mezghani, Josef A. Nossek, <i>Munich University of Technology</i>	
16:42		
<b>A3L-E.5</b>	<b>A Hybrid Approach to I/Q Imbalance Self-Calibration in Reconfigurable Low-IF Receivers .....</b>	<b>552</b>
	Yang Xu, Nan Qi, Zhou Chen, Baoyong Chi, Zhihua Wang, <i>Tsinghua University</i>	
<b>A3L-F</b>	<b>Biomedical and Genomic Signal Processing &amp; Bioimaging Technology III</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room E7	
Chair(s)	Amine Bermak, <i>Hong Kong University of Science &amp; Technology</i> Kea-Tiong Samuel Tang, <i>National Tsing Hua University</i>	
15:30		
<b>A3L-F.1</b>	<b>A SoC Design for Portable 2-Dimension Oximeter Image System .....</b>	<b>556</b>
	Ching-Ju Cheng, Shih-Yang Wu, Shih Kang, Tien-Ho Chen, Wai-Chi Fang, <i>National Chiao Tung University</i>	
15:48		
<b>A3L-F.2</b>	<b>An Efficient Data Extraction Method for High-Temporal-and-Spatial-Resolution near Infrared Spectroscopy (NIRS) Systems .....</b>	<b>560</b>
	JongKwan Choi, MinGyu Choi, Hyeon-Min Bae, <i>Korea Advanced Institute of Science and Technology</i>	
16:06		
<b>A3L-F.3</b>	<b>A Many-Core Platform Implemented for Multi-Channel Seizure Detection .....</b>	<b>564</b>
	Jordan Bisasky, Darin Chandler Jr., Tinoosh Mohsenin, <i>University of Maryland</i>	
16:24		
<b>A3L-F.4</b>	<b>Spectral Techniques for Classifying Short Exon and Intron Sequences .....</b>	<b>568</b>
	Benjamin Y. M. Kwan, <i>University of Ottawa</i> ; Jennifer Y. Y. Kwan, <i>Queen's University</i> ; Hon Keung Kwan, <i>University of Windsor</i>	
16:42		
<b>A3L-F.5</b>	<b>Pipelined FPGA Design of the Goertzel Algorithm for Exon Prediction .....</b>	<b>572</b>
	Hung Tien Bui, <i>Université du Québec à Chicoutimi</i>	



<b>A3L-G</b>	<b>High Level Synthesis and Verification</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 307A	
Chair(s)	Otmane Ait Mohamed, <i>Concordia University</i> Matthew Gately, <i>University of Oklahoma</i>	
15:30		
<b>A3L-G.1</b>	<b>An Energy-Efficient High-Level Synthesis Algorithm for Huddle-Based Distributed-Register Architectures</b> .....	<b>576</b>
	Shin-ya Abe, Masao Yanagisawa, Nozomu Togawa, <i>Waseda University</i>	
15:48		
<b>A3L-G.2</b>	<b>A Novel Particle Swarm Optimization for High-Level Synthesis of Digital Filters</b> .....	<b>580</b>
	Seyyed Ali Hashemi, Behrouz Nowrouzian, <i>University of Alberta</i>	
16:06		
<b>A3L-G.3</b>	<b>A Formal Approach to Slack-Driven High-Level Synthesis</b> .....	<b>584</b>
	Hua-Hsin Yeh, Shih-Hsu Huang, Chun-Hua Cheng, <i>Chung Yuan Christian University</i>	
16:24		
<b>A3L-G.4</b>	<b>Multiple Real-Constant Multiplication with Improved Cost Model and Greedy and Optimal Searches</b> .....	<b>588</b>
	M. B. Gately, M. B. Yearly, C. Y. Tang, <i>University of Oklahoma</i>	
16:42		
<b>A3L-G.5</b>	<b>Verification of Fixed-Point Datapaths with Comparator Units Using Constrained Arithmetic Transform (CAT)</b> .....	<b>592</b>
	O. Sarbishei, K. Radecka, <i>McGill University</i>	
<b>A3L-H</b>	<b>3D Visual Signal Acquisition and Rendering</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 307B	
Chair(s)	Shao-Yi Chien, <i>National Taiwan University</i> Lap-Pui Chau, <i>Nanyang Technological University</i>	
15:30		
<b>A3L-H.1</b>	<b>A Theoretical and Empirical Error Analysis of Mobile 3D Data Acquisition System</b> .....	<b>596</b>
	Yiyi Ren, Wenshou Chen, Xiang Xie, Yangdong Deng, Kai Zhao, Enbo Shi, Zhihua Wang, Guolin Li, <i>Tsinghua University</i>	
15:48		
<b>A3L-H.2</b>	<b>Disparity Map Acquisition with Occlusion Handling Using Warping Constraint</b> .....	<b>600</b>
	Woo-Seok Jang, Yo-Sung Ho, <i>Gwangju Institute of Science and Technology</i>	
16:06		
<b>A3L-H.3</b>	<b>Texture-Assisted Kinect Depth inpainting</b> .....	<b>604</b>
	Dan Miao, <i>University of Science and Technology of China</i> ; Jingjing Fu, Yan Lu, Shipeng Li, <i>Microsoft Research Asia</i> ; Chang Wen Chen, <i>State University of New York at Buffalo</i>	
16:24		
<b>A3L-H.4</b>	<b>Low Latency Design of Depth-Image-Based Rendering Using Hybrid Warping and Hole-Filling</b> .....	<b>608</b>
	Shen-Fu Hsiao, Jin-Wen Cheng, Wen-Ling Wang, Guan-Fu Yeh, <i>National Sun Yat-sen University</i>	
16:42		
<b>A3L-H.5</b>	<b>Keyframe Selection for Motion Capture Using Motion Activity Analysis</b> .....	<b>612</b>
	Ming-Hwa Kim, Lap-Pui Chau, <i>Nanyang Technological University</i> ; Wan-Chi Siu, <i>The Hong Kong Polytechnic University</i>	

<b>A3L-J</b>	<b>Bifurcation and Chaos in Nonlinear Circuits &amp; Systems</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 307C	
Chair(s)	Mario di Bernardo, <i>University of Naples Federico II</i> Orla Feely, <i>University College Dublin</i>	
15:30		
<b>A3L-J.1</b>	<b>Experimental Validation of Pinning Controllability in Networked Chua's Circuits .....</b>	<b>616</b>
	P. DeLellis, M. de Magistris, M. di Bernardo, S. Manfredi, <i>Università degli Studi di Napoli Federico II</i>	
15:48		
<b>A3L-J.2</b>	<b>Analysis of Synchronization Phenomenon in Coupled Oscillator Chains .....</b>	<b>620</b>
	Kosuke Matsumura, Takahiro Nagai, Yoko Uwate, Yoshifumi Nishio, <i>Tokushima University</i>	
16:06		
<b>A3L-J.3</b>	<b>Channel Equalization and Timing Recovery Technique for Chaotic Communications Systems .....</b>	<b>624</b>
	Zhiwen Zhu, <i>Communications Research Centre Canada</i> ; Henry Leung, <i>University of Calgary</i>	
16:24		
<b>A3L-J.4</b>	<b>Analysis of Limit Cycles in a PI Digitally Controlled Buck Converter .....</b>	<b>628</b>
	Mark Bradley, Orla Feely, <i>University College Dublin</i> ; Eduard Alarcon, <i>Technical University of Catalunya</i>	
16:42		
<b>A3L-J.5</b>	<b>Performance Comparison of Approximation Algorithms for the Minimum Weight Vertex Cover Problem .....</b>	<b>632</b>
	Satoshi Taoka, Toshimasa Watanabe, <i>Hiroshima University</i>	
<b>A3L-K</b>	<b>Network-on-Chip Design</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 308A	
Chair(s)	Andy Chung, <i>Inha University</i>	
15:30		
<b>A3L-K.1</b>	<b>NoC Architectures with Adaptive Code Division Multiple Access Based Wireless Links .....</b>	<b>636</b>
	Anuroop Vidapalapati, Vineeth Vijayakumaran, Amlan Ganguly, Andres Kwasinski, <i>Rochester Institute of Technology</i>	
15:48		
<b>A3L-K.2</b>	<b>A Unified Design Methodology for a Hybrid Wireless 2-D NoC .....</b>	<b>640</b>
	Ankit More, Baris Taskin, <i>Drexel University</i>	
16:06		
<b>A3L-K.3</b>	<b>Proposal and Evaluation of a Task Migration Protocol for NoC-Based MPSoCs .....</b>	<b>644</b>
	Fernando G. Moraes, Guilherme A. Madalozzo, Guilherme M. Castilhos, Everton A. Carara, <i>Pontifícia Universidade do Rio Grande do Sul</i>	
16:24		
<b>A3L-K.4</b>	<b>Task-Binding Based Branch-and-Bound Algorithm for NoC Mapping .....</b>	<b>648</b>
	Liyang Zhou, Ming'e Jing, Liulin Zhong, Zhiyi Yu, Xiaoyang Zeng, <i>Fudan University</i>	
16:42		
<b>A3L-K.5</b>	<b>Floorplan-Aware Hierarchical NoC Topology with GALS Interfaces .....</b>	<b>652</b>
	Debora Matos, Cezar Reinbrecht, Jonathan Martinelli, Altamiro Susin, Luigi Carro, <i>UFRRGS Institute of Informatics</i> ; Gianluca Palermo, Cristina Silvano, <i>Politecnico di Milano</i>	

<b>A3L-L</b>	<b>Gm-C Filters</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 308B	
Chair(s)	Jie George Yuan, <i>Hong Kong University of Science &amp; Technology</i>	
15:30		
<b>A3L-L.1</b>	<b>A 2.6nW, 0.5V, 52dB-DR, 4th-Order Gm-C BPF: Moving Closer to the FoM's Fundamental Limit</b> .....	<b>656</b>
	Chutham Sawigun, Wannaya Ngamkham, Wouter A. Serdijn, <i>Delft University of Technology</i>	
15:48		
<b>A3L-L.2</b>	<b>An Adaptive Microphone Preamplifier for Low Power Applications</b> .....	<b>660</b>
	Dingkun Du, Kofi Odame, <i>Dartmouth College</i>	
16:06		
<b>A3L-L.3</b>	<b>Discrete Space Continuous Time 2D Delay Block Using 2D All-Pass Frequency Planar Networks</b> .....	<b>664</b>
	Chamith Wijenayake, Arjuna Madanayake, <i>The University of Akron</i> ; Yongsheng Xu, Leonid Belostotski, Len T. Bruton, <i>The University of Calgary</i>	
16:24		
<b>A3L-L.4</b>	<b>A 1.8V -0.18<math>\mu</math>m CMOS Lock-in Amplifier for Portable Applications</b> .....	<b>668</b>
	P.M. Maya-Hernández, M.T. Sanz-Pascual, <i>Instituto Nacional de Astrofísica</i> ; B. Calvo, <i>University of Zaragoza</i>	
16:42		
<b>A3L-L.5</b>	<b>Widely Reconfigurable 8th-Order Chebyshev Analog Baseband IC with Proposed Push-Pull Op-Amp for Software-Defined Radio in 65nm CMOS</b> .....	<b>672</b>
	Le Ye, Yixiao Wang, Long Chen, Huailin Liao, Ru Huang, <i>Peking University</i>	
<b>A3L-M</b>	<b>Power Converters and Energy Harvesting Circuits</b>	
Time	Monday, May 21, 2012 (15:30 - 17:00)	
Place	Room 308C	
Chair(s)	Abdelali El Aroudi, <i>Universitat Rovira i Virgili</i> Tsorng-Juu Liang, <i>National Cheng Kung University</i>	
15:30		
<b>A3L-M.1</b>	<b>High-Damping Energy-Harvesting Electrostatic CMOS Charger</b> .....	<b>676</b>
	Karl Peterson, Gabriel A. Rincón-Mora, <i>Georgia Institute of Technology</i>	
15:48		
<b>A3L-M.2</b>	<b>An RF-to-DC Energy Harvester for co-Integration in a Low-Power 2.4 GHz Transceiver Frontend</b> .....	<b>680</b>
	Jens Masuch, Manuel Delgado-Restituto, <i>Institute of Microelectronics of Seville</i> ; Dusan Milosevic, Peter Baltus, <i>Eindhoven University of Technology</i>	
16:06		
<b>A3L-M.3</b>	<b>Electronically Tunable Switch-Mode High-Efficiency Adaptive Band-Pass Filters for Energy Harvesting Applications</b> .....	<b>684</b>
	Raul Gomez Cid-Fuentes, Herminio Martínez, Alberto Poveda, Eduard Alarcón, <i>Technical University of Catalonia</i>	
16:24		
<b>A3L-M.4</b>	<b>Ripple-Based Prediction of Fast-Scale Instabilities in Current Mode Controlled Switching Converters</b> .....	<b>688</b>
	E. Rodríguez, H. Martínez, F. Guinjoan, A. Poveda, E. Alarcón, <i>Technical University of Catalunya</i> ; A. El Aroudi, <i>Universitat Rovira i Virgili</i>	
16:42		
<b>A3L-M.5</b>	<b>Differential Zero Compensator in Delay-Ripple Reshaped Constant on-Time Control for Buck Converter with Multi-Layer Ceramic Capacitors</b> .....	<b>692</b>
	Wei-Chung Chen, Chia-Ching Lin, Ke-Horng Chen, <i>National Chiao Tung University</i>	

<b>A4P-N</b>	<b>Live Demos 1</b>	
Time	Monday, May 21, 2012 (13:40 - 17:00)	
Place	Poster Area	
Chair(s)	Jongsun Park, <i>Korea University</i> Kyoungrok Cho, <i>Chungbuk National University</i>	
<b>A4P-N.1</b>	<b>Live Demonstration: a FSK-OOK Ultra Wideband Impulse Radio System with Spontaneous Clock and Data Recovery</b> .....	<b>696</b>
	Wei Tang, Eugenio Culurciello, <i>Yale University</i> ; Shoushun Chen, <i>Nanyang Technological University</i>	
<b>A4P-N.2</b>	<b>Live Demonstration: a Real-Time Moving Object Localization and Extraction System</b> .....	<b>701</b>
	Bo Zhao, Shoushun Chen, <i>Nanyang Technological University</i>	
<b>A4P-N.3</b>	<b>Live Demonstration: a Scaled-Down Version of the BrainScaleS Wafer-Scale Neuromorphic System</b> .....	<b>702</b>
	Johannes Schemmel, Andreas Grübl, Alexander Kononov, Karlheinz Meier, Sebastian Millner, Marc-Olivier Schwartz, <i>University of Heidelberg</i> ; Stephan Hartmann, Christian Mayr, Johannes Partzsch, Stefan Schiefer, Stefan Scholze, Rene Schüffny, <i>Technische Universität Dresden</i>	
<b>A4P-N.4</b>	<b>Event-Driven Body Motion Analysis for Real-Time Gesture Recognition</b> .....	<b>703</b>
	Bernhard Kohn, Ahmed Nabil Belbachir, Thomas Hahn, <i>AIT Austrian Institute of Technology</i> ; Hannes Kaufmann, <i>Vienna University of Technology</i>	
<b>A4P-N.5</b>	<b>Live Demonstration: Hierarchical Address-Event Routing Architecture for Reconfigurable Large Scale Neuromorphic Systems</b> .....	<b>707</b>
	Jongkil Park, Theodore Yu, Christoph Maier, Siddharth Joshi, Gert Cauwenberghs, <i>UC San Diego</i>	
<b>A4P-P</b>	<b>Live Demos 2</b>	
Time	Monday, May 21, 2012 (13:40 - 17:00)	
Place	Poster Area	
Chair(s)	Jongsun Park, <i>Korea University</i> Kyoungrok Cho, <i>Chungbuk National University</i>	
<b>A4P-P.1</b>	<b>A Straightforward Approach of Automatic Parking System – "Training-Recording-Play Back"</b> .....	<b>712</b>
	Ray-Shine Run, Yi-Chih Chang, Feng-Chi Cheng, <i>National United University</i>	
<b>A4P-P.2</b>	<b>Live Demonstration: "Internet Booster" a Novel Web Application Platform Accelerated by Reconfigurable Virtual Hardware Circuits</b> .....	<b>716</b>
	Hakaru Tamukoh, Nadav Bergstein, Kotoko Fujita, Masatoshi Sekine, <i>Tokyo University of Agriculture and Technology</i>	
<b>A4P-P.3</b>	<b>High Resolution Distance Sensing for Mini-Robots Using Time Difference of Arrival ...</b>	<b>717</b>
	George Sineriz, Michael J. Kuhlman, Pamela A. Abshire, <i>University of Maryland</i>	

<b>A4P-Q</b>	<b>Live Demos 3</b>	
Time	Monday, May 21, 2012 (13:40 - 17:00)	
Place	Poster Area	
Chair(s)	Tobi Delbruck, <i>University of Zurich and ETH Zürich</i> Jongsun Park, <i>Korea University</i>	
<b>A4P-Q.1</b>	<b>Live Demonstration: on the Distance Estimation of Moving Targets with a Stereo-Vision AER System .....</b>	<b>721</b>
	M. Domínguez-Morales, A. Jiménez-Fernández, R. Paz-Vicente, G. Jiménez, A. Linares-Barranco, <i>University of Seville</i>	
<b>A4P-Q.2</b>	<b>Live Demonstration: a Bio-Inspired Asynchronous Pixel Event Tri-Color Vision Sensor .....</b>	<b>726</b>
	Juan A. Leñero-Bardallo, D.H. Bryn, P. Häfliger, <i>University of Oslo</i>	
<b>A4P-Q.3</b>	<b>Real-time 360° Panoramic Views Using BiCa360, the Fast Rotating Dynamic Vision Sensor to up to 10 Rotations per Sec .....</b>	<b>727</b>
	A.N.Belbachir, <i>AIT Austria Institute of Technology</i> ; J. Colineau, <i>THALES Research &amp; Technology</i>	
<b>A4P-Q.4</b>	<b>CARE: a Dynamic Stereo Vision Sensor System for Fall Detection .....</b>	<b>731</b>
	A.N. Belbachir, M. Litzenberger, S. Schraml, M. Hofstätter, D. Bauer, P. Schön, M. Humenberger, C. Sulzbachner, <i>AIT Austrian Institute of Technology</i> ; T. Lunden, M. Merne, <i>Everon Oy/Ab Lieto Finland</i>	
<b>A4P-Q.5</b>	<b>Live Demonstration: High Fill Factor CIS Based on Single Inverter Architecture .....</b>	<b>735</b>
	Sang-Jin Lee, Omid Kavehei, Kamran Eshraghian, Kyoungrok Cho, <i>Chungbuk National University</i>	
<b>A4P-R</b>	<b>Live Demos 4</b>	
Time	Monday, May 21, 2012 (13:40 - 17:00)	
Place	Poster Area	
Chair(s)	Tobi Delbruck, <i>University of Zurich and ETH Zürich</i> Jongsun Park, <i>Korea University</i>	
<b>A4P-R.1</b>	<b>Live Demonstration: Behavioural Emulation of Event-Based Vision Sensors .....</b>	<b>736</b>
	M. L. Katz, K. Nikolic, <i>Imperial College London</i> ; T. Delbruck, <i>University of Zurich and ETH Zurich</i>	
<b>A4P-R.2</b>	<b>Live Demonstration: Gesture-Based Remote Control Using Stereo Pair of Dynamic Vision Sensors .....</b>	<b>741</b>
	Junhaeng Lee, Paul K. J. Park, Chang-Woo Shin, Hyunsurk Ryu, Byung Chang Kang, <i>Samsung Electronics</i> ; T. Delbruck, Michael Pfeiffer, <i>University of Zurich and ETH Zurich</i>	

<b>B1L-A</b>	<b>Connectivity and Convergence in Consumer Electronics</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 300	
Chair(s)	KyungHo Kim, <i>Hanyang University</i>	
09:40		
<b>B1L-A.1</b>	<b>Recent Progress in Terahertz Monolithic Integrated Circuits .....</b>	<b>746</b>
	Moonil Kim, Jae-Sung Rieh, Sanggeun Jeon, <i>Korea University</i>	
09:58		
<b>B1L-A.2</b>	<b>Multi-Channel DVB-T Transmitter Design Based on the SW/HW Co-Design Method .....</b>	<b>750</b>
	Seo Weon Heo, <i>Hongik University</i>	
10:16		
<b>B1L-A.3</b>	<b>A Model-First Design and Verification Flow for Analog-Digital Convergence Systems: a High-Speed Receiver Example in Digital TVs .....</b>	<b>754</b>
	Jaeha Kim, Sigang Ryu, Byoungjoo Yoo, Hanseok Kim, Yunju Choi, Deog-Kyoon Jeong, <i>Seoul National University</i>	
10:34		
<b>B1L-A.4</b>	<b>SNR-Based Adaptive Modulation for Wireless LAN Systems .....</b>	<b>758</b>
	Chanhong Kim, Kyowon Jeong, Kyungjun Ko, Jungwoo Lee, <i>Seoul National University</i>	
<b>B1L-B</b>	<b>DSP Circuit Design I</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room E1	
Chair(s)	Koushik Maharatna, <i>University of Southampton</i> Kwen-Siong Chong, <i>Nanyang Technological University</i>	
09:40		
<b>B1L-B.1</b>	<b>Transpose-Free SAR Imaging on FPGA Platform .....</b>	<b>762</b>
	Chi-Li Yu, Chaitali Chakrabarti, <i>Arizona State University</i>	
09:58		
<b>B1L-B.2</b>	<b>Efficient Scissoring Scheme for Scanline-Based Rendering of 2D Vector Graphics .....</b>	<b>766</b>
	Wen-Ching Lin, Jheng-Hao Ye, Der-Wei Yang, Si-Yu Huang, Ming-Der Shieh, <i>National Cheng Kung University</i> ; Jonas Wang, <i>Himax Inc.</i>	
10:16		
<b>B1L-B.3</b>	<b>A Practical Hardware Design for the Keypoint Detection in the Sift Algorithm with a Reduced Memory Requirement .....</b>	<b>770</b>
	Eung Sup Kim, Hyuk-Jae Lee, <i>Seoul National University</i>	
10:34		
<b>B1L-B.4</b>	<b>Rotation-Invariant Hand Posture Classification with a Convexity Defect Histogram .....</b>	<b>774</b>
	Juhyeon Hong, Eung Sup Kim, Hyuk-Jae Lee, <i>Seoul National University</i>	
10:52		
<b>B1L-B.5</b>	<b>Hardware-Efficient Filterbank Design for Fast Recursive MDST and IMDST Algorithms .....</b>	<b>778</b>
	Shin-Chi Lai, Yi-Ping Yeh, Sheau-Fang Lei, <i>National Cheng Kung University</i>	

<b>B1L-C</b>	<b>Digital Filter Design</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room E2	
Chair(s)	H.K. Kwan, <i>University of Windsor</i> Weixing Zheng, <i>University of Western Sydney</i>	
09:40		
<b>B1L-C.1</b>	<b>Variable Fractional Delay FIR Filters with Sparse Coefficients .....</b>	<b>782</b>
	Wu-Sheng Lu, <i>University of Victoria</i> ; Takao Hinamoto, <i>Hiroshima University</i>	
09:58		
<b>B1L-C.2</b>	<b>Bi-Minimax Design of Odd-Order Variable Fractional-Delay Digital Filters .....</b>	<b>786</b>
	Tian-Bo Deng, <i>Toho University</i>	
10:16		
<b>B1L-C.3</b>	<b>Bias Free Adaptive Exponential Notch Filter with Low Constant Delay .....</b>	<b>790</b>
	Kazuki Shiogai, Naoto Sasaoka, <i>Tottori University</i> ; Yasutomo Kinugasa, <i>Matsue College of Technology</i> ; Masaki Kobayashi, <i>Chubu University</i>	
10:34		
<b>B1L-C.4</b>	<b>Design of Robust H-Infinity Filters for Markovian Jump Systems with Time-Varying Delays and Parametric Uncertainties .....</b>	<b>794</b>
	Baoyong Zhang, <i>Nanjing University of Science and Technology</i> ; Wei Xing Zheng, <i>University of Western Sydney</i>	
<b>B1L-D</b>	<b>Pipelined Data Converters</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room E3	
Chair(s)	Shahriar Mirabbasi, <i>University of British Columbia</i>	
09:40		
<b>B1L-D.1</b>	<b>A 12-Bit, 270MS/s Pipelined ADC with SHA-Eliminating Front End .....</b>	<b>798</b>
	Xuan Wang, Changyi Yang, Xiaoxiao Zhao, Chao Wu, Fule Li, Zhihua Wang, <i>Tsinghua University</i> ; Bin Wu, <i>Chinese Academy of Sciences</i>	
09:58		
<b>B1L-D.2</b>	<b>A 12b 60MS/s SHA-Less Opamp-Sharing Pipeline A/D with Switch-Embedded Dual Input OTAs .....</b>	<b>802</b>
	Xiaoke Wen, Rui Wang, Jinghong Chen, <i>Southern Methodist University</i> ; Renguo Peng, Min Hao, <i>Fudan University</i>	
10:16		
<b>B1L-D.3</b>	<b>Novel Overshoot Cancellation in Comparator-Based Pipelined ADC .....</b>	<b>806</b>
	Xian Tang, Kong-Pang Pun, <i>The Chinese University of Hong Kong</i>	
10:34		
<b>B1L-D.4</b>	<b>Correlated Jitter Sampling for Jitter Cancellation in Pipelined TDC .....</b>	<b>810</b>
	Taehwan Oh, Hariprasath Venkatram, Jon Guerber, Un-Ku Moon, <i>Oregon State University</i>	
10:52		
<b>B1L-D.5</b>	<b>RNS Encoding Based Folding ADC .....</b>	<b>814</b>
	C. H. Vun, A. B. Premkumar, <i>Nanyang Technological University</i>	

<b>B1L-E</b>	<b>Software Defined Radio and Cognitive Radio Systems</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room E4	
Chair(s)	Tokunbo Ogunfunmi, <i>Santa Clara University</i> Lan-Da Van, <i>National Chiao Tung University</i>	
09:40		
<b>B1L-E.1</b>	<b>An Enhanced Covariance Spectrum Sensing Technique Based on Stochastic Resonance in Cognitive Radio Networks .....</b>	<b>818</b>
	Di He, Weiyao Lin, <i>Shanghai Jiao Tong University</i> ; Winston (Wenhua) Li, <i>ARCON Corporation</i> ; Fusheng Zhu, <i>ZTE Corporation, Shanghai</i>	
09:58		
<b>B1L-E.2</b>	<b>Mixed-Domain Receiver Architecture for White Space Software-Defined Radio Scenarios .....</b>	<b>822</b>
	Roberto Gómez-García, <i>University of Alcalá</i> ; José Vieira, Nuno Borges Carvalho, José Pedro Magalhães, <i>Universidade de Aveiro</i>	
10:16		
<b>B1L-E.3</b>	<b>Subsampling Based Software Defined Radio with Jitter Compensation .....</b>	<b>826</b>
	Duan Zhao, Wouter A. Serdijn, <i>Delft University of Technology</i> ; Guido Dolmans, <i>Holst Centre/imec</i>	
10:34		
<b>B1L-E.4</b>	<b>Acquisition of Multiband Signals with Minimum Sub-Nyquist Sampling .....</b>	<b>830</b>
	José-María Muñoz-Ferreras, Roberto Gómez-García, <i>University of Alcalá</i> ; Félix Pérez-Martínez, <i>Technical University of Madrid</i>	
10:52		
<b>B1L-E.5</b>	<b>A Triple-Band Flexible Low-Noise Transmitter with Linearity Enhancement .....</b>	<b>834</b>
	Yilei Li, Chuansheng Dong, Kefeng Han, Cheng Zhang, Yongchang Yu, Xi Tan, Na Yan, Hao Min, <i>Fudan University</i>	
<b>B1L-F</b>	<b>Circuits for Biomedical Systems I</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room E7	
Chair(s)	Tim Constandinou, <i>Imperial College London</i> Robert Newcomb, <i>University of Maryland</i>	
09:40		
<b>B1L-F.1</b>	<b>A Hybrid Multi-Tanh Bulk-Driven Input Stage OTA for Low-THD Biomedical Gm-C Applications .....</b>	<b>838</b>
	Luís H. C. Ferreira, <i>Federal University of Itajubá</i> ; Sameer R. Sonkusale, <i>Tufts University</i>	
09:58		
<b>B1L-F.2</b>	<b>A Low-Power Current-Mode Front-End Acquisition System for Biopotential Signal Recording .....</b>	<b>842</b>
	Wei-Ming Chen, Liang-Ting Kuo, Chung-Yu Wu, <i>National Chiao Tung University</i>	
10:16		
<b>B1L-F.3</b>	<b>A New Shared-Input Amplifier Architecture with Enhanced Noise-Power Efficiency for Parallel Biosignal Recordings .....</b>	<b>846</b>
	Jonathan Coulombe, Olivier Rossel, Serge Bernard, Fabien Soulier, Guy Cathebras, <i>Laboratoire d'Informatique de Robotique et de Microélectronique de Montpellier</i>	
10:34		
<b>B1L-F.4</b>	<b>Offset Correction of Low Power, High Precision Op Amp Using Digital Assist for Biomedical Applications .....</b>	<b>850</b>
	Matt Duwe, Tom Chen, <i>Colorado State University</i>	
10:52		
<b>B1L-F.5</b>	<b>Current Readout Circuit Using Two-Stage Amplification Method for 64-Channel CNT Arrays .....</b>	<b>854</b>
	Young-San Shin, Seongsoo Lee, Jae-Kyung Wee, <i>Soongsil University</i>	



<b>B1L-G</b>	<b>Media Content Analysis and Recognition</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 307A	
Chair(s)	Jianfei Cai, <i>Nanyang Technological University</i> Lap-Pui Chau, <i>Nanyang Technological University</i>	
09:40		
<b>B1L-G.1</b>	<b>Image-Driven Simplification with Single Viewpoint .....</b>	<b>858</b>
	Cheen-Hau Tan, Lap-Pui Chau, <i>Nanyang Technological University</i>	
09:58		
<b>B1L-G.2</b>	<b>Content-Based Spam Filtering Using Hybrid Generative Discriminative Learning of Both Textual and Visual Features .....</b>	<b>862</b>
	Ola Amayri, Nizar Bouguila, <i>Concordia University</i>	
10:16		
<b>B1L-G.3</b>	<b>Dynamic Textures Indexing and Retrieval Based on Intrinsic Properties .....</b>	<b>866</b>
	Muwei Jian, Kin-Man Lam, <i>The Hong Kong Polytechnic University</i> ; Junyu Dong, <i>Ocean University of China</i>	
10:34		
<b>B1L-G.4</b>	<b>Constrained Active Contours for Boundary Refinement in Interactive Image Segmentation .....</b>	<b>870</b>
	Nguyen Thi Nhat Anh, Jianfei Cai, Juyong Zhang, Jianmin Zheng, <i>Nanyang Technological University</i>	
10:52		
<b>B1L-G.5</b>	<b>A Comparison of SVM and Asymmetric SIMPLS in Emotion Recognition from Naturalistic Dialogues .....</b>	<b>874</b>
	Dong-Yan Huang, <i>Institute for Infocomm Research</i> ; Wei Sun, <i>National University of Singapore</i>	
<b>B1L-H</b>	<b>High Efficiency Video Coding (HEVC)</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 307B	
Chair(s)	Wan-Chi Siu, <i>Hong Kong Polytechnic University</i> Chia-Wen Lin, <i>National Tsing Hua University</i>	
09:40		
<b>B1L-H.1</b>	<b>Counter Based Adaptation for CAVLC in HEVC .....</b>	<b>878</b>
	Bin Li, Houqiang Li, <i>University of Science and Technology of China</i> ; Jizheng Xu, <i>Microsoft Research Asia</i>	
09:58		
<b>B1L-H.2</b>	<b>Complexity Analysis of Next-Generation HEVC Decoder .....</b>	<b>882</b>
	Marko Viitanen, Jarno Vanne, Timo D. Hämäläinen, Moncef Gabbouj, <i>Tampere University of Technology</i> ; Jani Lainema, <i>Nokia Corporation</i>	
10:16		
<b>B1L-H.3</b>	<b>Compression Performance of High Efficiency Video Coding (HEVC) Working Draft 4 .....</b>	<b>886</b>
	Bin Li, <i>University of Science and Technology of China</i> ; Gary J. Sullivan, Jizheng Xu, <i>Microsoft Corporation and Microsoft Research</i>	
10:34		
<b>B1L-H.4</b>	<b>Scalability Support in HEVC .....</b>	<b>890</b>
	Danny Hong, Wonkap Jang, Jill Boyce, Adeel Abbas, <i>Vidyo, Inc.</i>	
10:52		
<b>B1L-H.5</b>	<b>Improved Near-Lossless HEVC Codec for Depth Map Based on Statistical Analysis of Residual Data .....</b>	<b>894</b>
	Jung-Ah Choi, Yo-Sung Ho, <i>Gwangju Institute of Science and Technology</i>	

<b>B1L-J</b>	<b>Complex Networks and Nonlinear Dynamics</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 307C	
Chair(s)	Chi K. Michael Tse, <i>The Hong Kong Polytechnic University</i> Ljiljana Trajkovic, <i>Simon Fraser University</i>	
09:40		
<b>B1L-J.1</b>	<b>Topology Detection of Complex Networks with Hidden Variables and Stochastic Perturbations</b> .....	<b>898</b>
	Xiaoqun Wu, Weihan Wang, <i>Wuhan University</i> ; Wei Xing Zheng, <i>University of Western Sydney</i>	
09:58		
<b>B1L-J.2</b>	<b>A Degree-Based Genetic Algorithm for Constrained Pinning Control in Complex Networks</b> .....	<b>902</b>
	Cui-Li Yang, Wallace Kit-Sang Tang, <i>City University of Hong Kong</i>	
10:16		
<b>B1L-J.3</b>	<b>Effect of Assortativity on Traffic Performance in Scale-Free Networks</b> .....	<b>906</b>
	Yongxiang Xia, <i>Zhejiang University</i> ; Chi K. Tse, Francis C. M. Lau, <i>Hong Kong Polytechnic University</i>	
10:34		
<b>B1L-J.4</b>	<b>Bridge Time Series and Complex Networks with a Frequency-Degree Mapping Algorithm</b> .....	<b>910</b>
	Dong Yang, Xiang Li, <i>Fudan University</i>	
10:52		
<b>B1L-J.5</b>	<b>Clustering Phenomena in Complex Networks of Chaotic Circuits</b> .....	<b>914</b>
	Yuji Takamaru, Hiroshige Kataoka, Yoko Uwate, Yoshifumi Nishio, <i>Tokushima University</i>	
<b>B1L-K</b>	<b>Vision, Range, and Network Sensors</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 308A	
Chair(s)	Christoph Posch, <i>Austria Inst. of Technology</i>	
09:40		
<b>B1L-K.1</b>	<b>Sparsity-Based Online Missing Sensor Data Recovery</b> .....	<b>918</b>
	Di Guo, Xiaobo Qu, Lianfen Huang, Yan Yao, <i>Xiamen University</i> ; Zicheng Liu, <i>Microsoft Research</i> ; Ming-Ting Sun, <i>University of Washington</i>	
09:58		
<b>B1L-K.2</b>	<b>A <math>33 \times 25 \mu\text{m}^2</math> Low-Power Range Finder</b> .....	<b>922</b>
	Milos Davidovic, Michael Hofbauer, Horst Zimmermann, <i>Vienna University of Technology</i>	
10:16		
<b>B1L-K.3</b>	<b>A Multiresolution Algorithm for Focal-Plane Compression</b> .....	<b>926</b>
	Hsuan-Tsung Wang, Walter D. Leon-Salas, <i>University of Missouri-Kansas City</i>	
10:34		
<b>B1L-K.4</b>	<b>CMOS 3-T Digital Pixel Sensor with in-Pixel Shared Comparator</b> .....	<b>930</b>
	Derek Ho, Glenn Gulak, Roman Genov, <i>University of Toronto</i>	
10:52		
<b>B1L-K.5</b>	<b>Characterization of Silicon Field Effect Transistor Sub-THz Detectors for Imaging Systems</b> .....	<b>934</b>
	Péter Földesy, <i>MTA-SZTAKI</i>	

<b>B1L-L</b>	<b>Advance Circuit Theory</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 308B	
Chair(s)	Gabor Temes, <i>Oregon State University</i>	
09:40		
<b>B1L-L.1</b>	<b>A Retargeting Methodology of Nano-Watt CMOS Reference Circuit Based on Advanced Compact MOSFET Model .....</b>	<b>938</b>
	Gong Chen, Bo Yang, Shigetoshi Nakatake, <i>The University of Kitakyushu</i> ;	
	Zhangcai Huang, <i>Fukuoka Industry, Science &amp; Technology Foundation</i> ;	
	Yasuaki Inoue, <i>Waseda University</i>	
09:58		
<b>B1L-L.2</b>	<b>The Effect of Correlated Level Shifting on Noise Performance in Switched Capacitor Circuits .....</b>	<b>942</b>
	Benjamin Hershberg, Tawfiq Musah, Skyler Weaver, Un-Ku Moon, <i>Oregon State University</i>	
10:16		
<b>B1L-L.3</b>	<b>On Synthesis of Pulse-Transforming Linear Networks .....</b>	<b>946</b>
	I. M. Filanovsky, <i>University of Alberta</i>	
10:34		
<b>B1L-L.4</b>	<b>Wave Repetitive Process Approach to a Class of Ladder Circuits .....</b>	<b>950</b>
	Bartosz Palucki, Krzysztof Gałkowski, <i>Nicolaus Copernicus University Toruń</i> ;	
	Anton Kummert, <i>University of Wuppertal</i> ;	
	Błażej Cichy, <i>University of Zielona Góra</i>	
10:52		
<b>B1L-L.5</b>	<b>Design and Characterization of Symmetric Multi-Tap Transformers .....</b>	<b>954</b>
	Xiaohua Yu, Nathan M. Neihart, <i>Iowa State University</i>	
<b>B1L-M</b>	<b>Integrated Power Circuits and Pumps</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Room 308C	
Chair(s)	Hiroataka Koizumi, <i>Tokyo University of Science</i> Ke-Horng Chen, <i>National Chiao Tung University</i>	
09:40		
<b>B1L-M.1</b>	<b>A pMOS-Based Double-Ladder Integrated Charge Pump for Standard Process .....</b>	<b>958</b>
	Andrea Bazzini, Jingqi Liu, Stefano Gregori, <i>University of Guelph</i>	
09:58		
<b>B1L-M.2</b>	<b>On-Chip Digital Inductor Current Sensor for Monolithic Digitally Controlled DC-DC Converters .....</b>	<b>962</b>
	Man Pun Chan, Philip K. T. Mok, <i>The Hong Kong University of Science and Technology</i>	
10:16		
<b>B1L-M.3</b>	<b>A High Efficiency Adaptive Frequency Hopping Controlled 1/3x Step-Down Switch Capacitor DC-DC Converter with Deep-Green Mode Operation .....</b>	<b>966</b>
	Da-Long Ming, Yu-Huei Lee, Ke-Horng Chen, <i>National Chiao Tung University</i>	
10:34		
<b>B1L-M.4</b>	<b>An Event-Driven Ultra-Low-Current Battery Management System with Reconfigurable Linear Regulator for Multi-Cell Battery Applications .....</b>	<b>970</b>
	Jun Hua, Ken King, <i>Texas Instruments Inc.</i> ;	
	Hoi Lee, <i>University of Texas at Dallas</i>	
10:52		
<b>B1L-M.5</b>	<b>A Voltage-Mode DC-DC Converter with Enhanced Transient Responses .....</b>	<b>974</b>
	Kichang Jang, Jungsoo Choi, Chulkyu Park, Joongho Choi, <i>University of Seoul</i>	

<b>B2L-A</b>	<b>Ubiquitous ULP M2M Sensors &amp; Communication Solutions</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 300	
Chair(s)	Jaesup Lee, <i>Samsung Advanced Institute of Technology</i> Dejan Markovic, <i>University of California, Los Angeles</i>	
11:30		
<b>B2L-A.1</b>	<b>Ultra-Low Power Sensor Platform with Wireless Charging System .....</b>	<b>978</b>
	Young-Jun Hong, Joonseong Kang, Seong Joong Kim, Sang Joon Kim, Ui-Kun Kwon, <i>Samsung Electronics</i>	
11:48		
<b>B2L-A.2</b>	<b>A New Circuit Structure for near Field Wireless Power Transmission .....</b>	<b>982</b>
	Seung Keun Yoon, Sang Joon Kim, Ui Kun Kwon, <i>Samsung Electronics</i>	
12:06		
<b>B2L-A.3</b>	<b>Challenges and Directions of Ultra Low Energy Wireless Sensor Nodes for Biosignal Monitoring .....</b>	<b>986</b>
	Seong Joong Kim, Jaesup Lee, <i>Samsung Electronics</i> ; Bumman Kim, <i>POSTECH</i> ; Sangwook Nam, <i>Seoul National University</i> ; Dejan Markovic, <i>UCLA</i> ; Sang-Gug Lee, <i>Korea Advanced Institute of Science and Technology</i>	
12:24		
<b>B2L-A.4</b>	<b>An Energy-Efficient Interface for Resonant Sensors Based on Ring-Down Measurement .....</b>	<b>990</b>
	Michiel A.P. Pertijs, <i>Delft University of Technology</i> ; Zeng Zeng, Devrez M. Karabacak, Mercedes Crego-Calama, Sywert H. Brongersma, <i>IMEC, Holst Centre</i>	
12:42		
<b>B2L-A.5</b>	<b>A Hydrogel-Based Implantable Wireless CMOS Glucose Sensor SoC .....</b>	<b>994</b>
	Po-Hung Kuo, Shey-Shi Lu, Jui-Chang Kuo, Yao-Joe Yang, <i>National Taiwan University</i> ; Tao Wang, <i>Chang Gung University</i> ; Yi-Lwun Ho, Ming-Fong Chen, <i>National Taiwan University Hospital</i>	
<b>B2L-B</b>	<b>DSP Circuit Design II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room E1	
Chair(s)	Oscar Gustafsson, <i>Linköping University</i> Pramod Kumar Meher, <i>A-STAR, Institute for Infocomm Research</i>	
11:30		
<b>B2L-B.1</b>	<b>Hardware-Efficient VLSI Implementation for 3-Parallel Linear-Phase FIR Digital Filter of Odd Length .....</b>	<b>998</b>
	Yu-Chi Tsao, Ken Choi, <i>Illinois Institute of Technology</i>	
11:48		
<b>B2L-B.2</b>	<b>An FPGA-Based Acceleration Platform for Auction Algorithm .....</b>	<b>1002</b>
	Pengfei Zhu, Chun Zhang, Bryan Hu, <i>University of Alberta</i> ; Hua Li, <i>University of Lethbridge</i> ; Ray C.C. Cheung, <i>City University of Hong Kong</i>	
12:06		
<b>B2L-B.3</b>	<b>Dynamically Adaptable NoC Router Architecture for Multiple Pixel Streams Applications .....</b>	<b>1006</b>
	Nicolas Ngan, Eva Dokladalova, Mohamed Akil, <i>Laboratoire Informatique Gaspard Monge</i>	
12:24		
<b>B2L-B.4</b>	<b>Efficient Twin-VQ Audio Decoder Implementation on a Configurable Processor Using Instruction Extension .....</b>	<b>1010</b>
	Yin-Tsung Hwang, <i>National Chung-Hsing University</i> ; Tao-Hsing Huang, <i>Faraday Technology Corp.</i>	
12:42		
<b>B2L-B.5</b>	<b>Hardware Efficient Recursive VLSI Architecture for Multilevel Lifting 2-D DWT .....</b>	<b>1014</b>
	A.D.Darji, S.N.Merchant, A.N.Chandorkar, <i>Indian Institute of Technology Bombay</i> ; Nisarg Trivedi, <i>SVNIT</i>	

<b>B2L-C</b>	<b>Speech Processing</b>
Time	Tuesday, May 22, 2012 (11:30 - 13:00)
Place	Room E2
Chair(s)	Yoshikazu Miyanaga, <i>Hokkaido University</i> Tokunbo Ogunfunmi, <i>Santa Clara University</i>
11:30	
<b>B2L-C.1</b>	<b>Improved Speech Presence Probability Estimation Based on Wavelet Denoising .....1018</b> Daniel Pak-Kong Lun, Tak-Wai Shen, Tai-Chiu Hsung, <i>The Hong Kong Polytechnic University</i> ; Dominic K.C. Ho, <i>University of Missouri Columbia</i>
11:48	
<b>B2L-C.2</b>	<b>Performance Evaluation of Directional Audible Sound .....B#5</b> Wen-Kung Tseng, <i>National Changhua University of Education</i>
12:06	
<b>B2L-C.3</b>	<b>A New Recursive Algorithm for Time-Varying Autoregressive (TVAR) Model Estimation and its Application to Speech Analysis .....1026</b> Y. J. Chu, S. C. Chan, Z. G. Zhang, K. M. Tsui, <i>The University of Hong Kong</i>
12:24	
<b>B2L-C.4</b>	<b>Detection of Voice Disorders Based on Wavelet and Prosody-Related Properties .....1030</b> C. Shahnaz, S. A. Fattah, U. Mahbub, <i>Bangladesh University of Engineering and Technology</i> ; W.-P. Zhu, M. O. Ahmad, <i>Concordia University</i>
12:42	
<b>B2L-C.5</b>	<b>Scalable Multi-Rate iLBC .....1034</b> Koji Seto, Tokunbo Ogunfunmi, <i>Santa Clara University</i>
<b>B2L-D</b>	<b>Calibration Techniques for Data Converters I</b>
Time	Tuesday, May 22, 2012 (11:30 - 13:00)
Place	Room E3
Chair(s)	Joao Goes, <i>Universidade Nova de Lisboa / UNINOVA-CTS, FCT</i>
11:30	
<b>B2L-D.1</b>	<b>A 14 Bit Self-Calibrating Charge Redistribution SAR ADC .....1038</b> Stefan Haenzsche, Stephan Henker, Rene Schuffny, <i>Technische Universitat Dresden</i> ; Thomas Reichel, Matthias Garzarolli, <i>ZMDI AG Dresden</i>
11:48	
<b>B2L-D.2</b>	<b>A 10-Bit 200-MS/s Digitally-Calibrated Pipelined ADC Using Switching Opamps .....1042</b> Bing-Nan Fang, Jieh-Tsorng Wu, <i>National Chiao-Tung University</i>
12:06	
<b>B2L-D.3</b>	<b>A Low Power Oscillator Based TDC with in-System Non-Linearity Correction .....1046</b> Matthias Voelker, Johann Hauer, <i>Fraunhofer Institute for Integrated Circuits IIS</i>
12:24	
<b>B2L-D.4</b>	<b>All-Digital Background Calibration for Time-Interleaved ADC Using Pseudo Aliasing Signal .....1050</b> Junya Matsuno, Takafumi Yamaji, Masanori Furuta, Tetsuro Itakura, <i>Toshiba Corporation</i>
12:42	
<b>B2L-D.5</b>	<b>Digital Foreground Calibration Methods for SAR ADCs .....1054</b> Wei Li, Tao Wang, Gabor C. Temes, <i>Oregon State University</i>

<b>B2L-E</b>	<b>Millimeter-Wave &amp; Optical Communications Circuits</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room E4	
Chair(s)	Byunghoo Jung, <i>Purdue University</i> DongHyun Baek, <i>Chung-Ang University</i>	
11:30		
<b>B2L-E.1</b>	<b>Frequency Scaling of Power Reclamation Networks in Outphasing PA Architectures</b> .....1058	
	David Tian, L. Richard Carley, David S. Ricketts, <i>Carnegie Mellon University</i>	
11:48		
<b>B2L-E.2</b>	<b>A 213GHz - 228GHz, -91dB/Hz Phase Noise Triple Push Oscillator in 65nm CMOS</b> ...1062	
	Sriram Muralidharan, Mona Hella, <i>Rensselaer Polytechnic Institute</i>	
12:06		
<b>B2L-E.3</b>	<b>An Efficient Blind Fine Synchronization Scheme for SCBT Systems</b> .....1066	
	Ying-Tsung Lin, Sau-Gee Chen, <i>National Chiao-Tung University</i>	
12:24		
<b>B2L-E.4</b>	<b>A 50GHz 130µW Inductorless Prescaler in 45nm SOI CMOS Using ETSPC Logic</b> .....1071	
	Elkim Roa, Byunghoo Jung, <i>Purdue University</i>	
<b>B2L-F</b>	<b>Circuits for Biomedical Systems II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room E7	
Chair(s)	Wouter Serdijn, <i>Delft University of Technology</i> Philipp Häfliger, <i>University of Oslo</i>	
11:30		
<b>B2L-F.1</b>	<b>Compact Chopper-Stabilized Neural Amplifier with Low-Distortion High-Pass Filter in 0.13µm CMOS</b> .....1075	
	Karim Abdelhalim, Roman Genov, <i>University of Toronto</i>	
11:48		
<b>B2L-F.2</b>	<b>Bidirectional Current Conveyer with Chopper Stabilization and Dynamic Element Matching</b> .....1079	
	Hamed Mazhab Jafari, Roman Genov, <i>University of Toronto</i>	
12:06		
<b>B2L-F.3</b>	<b>Biphasic Stimulator Circuit for a Wide Range of Electrode-Tissue Impedance Dedicated to Cochlear Implants</b> .....1083	
	Wannaya Ngamkham, Marijn N. van Dongen, Wouter A. Serdijn, <i>Delft University of Technology</i>	
12:24		
<b>B2L-F.4</b>	<b>A 36V Biphasic Stimulator with Electrode Monitoring Circuit</b> .....1087	
	Edward K.F. Lee, <i>Alfred Mann Foundation</i> ; Rongching Dai, Natasha Reeves, Xiao Yun, <i>Second Sight Medical Products</i>	
12:42		
<b>B2L-F.5</b>	<b>An Energy-Efficient, Dynamic Voltage Scaling Neural Stimulator for a Proprioceptive Prosthesis</b> .....1091	
	Ian Williams, Timothy G. Constandinou, <i>Imperial College London</i>	

<b>B2L-G</b>	<b>Resource Allocation for Media Processing and Streaming</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 307A	
Chair(s)	JongWon Kim, <i>Gwangju Institute of Science and Technology</i> Zixiang Xiong, <i>Texas A&amp;M University</i>	
11:30		
<b>B2L-G.1</b>	<b>A Scalable Resource Allocation Framework for SVC Video Transmissions over Downlink MIMO-OFDM Networks .....</b>	<b>1095</b>
	Maodong Li, Zhenzhong Chen, Yap-Peng Tan, <i>Nanyang Technological University</i>	
11:48		
<b>B2L-G.2</b>	<b>Low Complexity Iterative Multimedia Resource Allocation Based on Game Theoretic Approach .....</b>	<b>1099</b>
	Eunji Kim, Hyunggon Park, <i>Ewha Womans University</i> ; Pascal Frossard, <i>Ecole Polytechnique Fédérale de Lausanne</i>	
12:06		
<b>B2L-G.3</b>	<b>QoE-Aware Resource Allocation for Integrated Surveillance System over 4G Mobile Networks .....</b>	<b>1103</b>
	Po-Han Wu, Jenq-Neng Hwang, <i>University of Washington</i> ; Jae-Young Pyun, <i>Chosun University</i> ; Kung-Ming Lan, Jian-Ren Chen, <i>Industrial Technology Research Institute</i>	
12:24		
<b>B2L-G.4</b>	<b>A Low-Latency Transmission Scheme for Interactive Screen Sharing .....</b>	<b>1107</b>
	Zhaotai Pan, <i>University of Science &amp; Technology of China</i> ; Huifeng Shen, Yan Lu, Shipeng Li, <i>Microsoft Research Asia</i>	
12:42		
<b>B2L-G.5</b>	<b>Optimal Resource Allocation for Multimedia Cloud in Priority Service Scheme .....</b>	<b>1111</b>
	Xiaoming Nan, Yifeng He, Ling Guan, <i>Ryerson University</i>	
<b>B2L-H</b>	<b>Visual Signal Analysis and Protection</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 307B	
Chair(s)	Gwo-Giun Lee, <i>National Cheng Kung University</i> Yap-Peng Tan, <i>Nanyang Technological University</i>	
11:30		
<b>B2L-H.1</b>	<b>Human Emotion Recognition Using a Deformable 3D Facial Expression Model .....</b>	<b>1115</b>
	Yun Tie, Ling Guan, <i>Ryerson University</i>	
11:48		
<b>B2L-H.2</b>	<b>A Novel Hardware Algorithm for Real-Time Image Recognition Based on Real AdaBoost Classification .....</b>	<b>1119</b>
	Takashi Aoki, Eiichi Hosoya, Takuya Otsuka, Akira Onozawa, <i>NTT Microsystem Integration Laboratories</i>	
12:06		
<b>B2L-H.3</b>	<b>Generalized Subspace Distance for Set-to-Set Image Classification .....</b>	<b>1123</b>
	Likun Huang, Gao Yang, Yap-Peng Tan, <i>Nanyang Technological University</i> ; Jiwen Lu, <i>Advanced Digital Sciences Center</i>	
12:24		
<b>B2L-H.4</b>	<b>Adaptive Binary Mask for Privacy Region Protection .....</b>	<b>1127</b>
	Yongsheng Wang, Maire O'Neill, Fatih Kurugollu, <i>Queen's University</i>	
12:42		
<b>B2L-H.5</b>	<b>Robust and Discriminative Image Authentication Based on Standard Model Feature .....</b>	<b>1131</b>
	Luntian Mou, Xilin Chen, <i>Key Lab. of Intell. Info. Process., ICT, CAS</i> ; Yonghong Tian, Tiejun Huang, <i>Peking University</i>	

<b>B2L-J</b>	<b>Analog Circuits and Systems</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 307C	
Chair(s)	Yoshifumi Nishio, <i>Tokushima University</i> Henry Leung, <i>University of Calgary</i>	
11:30		
<b>B2L-J.1</b>	<b>Bifurcations in Frequency Controlled Load Resonant DC-DC Converters .....</b>	<b>1135</b>
	Kuntal Mandal, Chandan Chakraborty, Mrityunjoy Chakraborty, <i>Indian Institute of Technology</i> ; Soumitro Banerjee, <i>Indian Institute of Science Education &amp; Research</i>	
11:48		
<b>B2L-J.2</b>	<b>Realization of an Analog Model of Memristor Based on Light Dependent Resistor ..</b>	<b>1139</b>
	A.L. Fitch, H.H.C. Iu, V. Sreeram, <i>The University of Western Australia</i> ; X.Y.Wang, W.G. Qi, <i>Harbin Institute of Technology</i>	
12:06		
<b>B2L-J.3</b>	<b>Finding All Modes of Nonlinear Oscillations by the Krawczyk-Moore-Jones Algorithm .....</b>	<b>1143</b>
	Kohshi Okumura, <i>Simon Fraser University</i>	
12:24		
<b>B2L-J.4</b>	<b>Effect of Capacitor Nonlinearity on the Oscillation Frequency of a Digitally-Controlled Oscillator Using Oppositely-Coupled PMOS Capacitor Pairs .....</b>	<b>1147</b>
	Jeong-Ho Park, Sang-Sun Yoo, Han-Won Cho, Hyung-Joun Yoo, <i>Korea Advanced Institute of Science and Technology</i>	
<b>B2L-K</b>	<b>Auditory, Chemical &amp; Strain Sensors</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 308A	
Chair(s)	John Harris, <i>University of Florida</i> Mohamad Sawan, <i>École Polytechnique de Montréal</i>	
11:30		
<b>B2L-K.1</b>	<b>A Low-Noise Interface Circuit for MEMS Cochlea-Mimicking Acoustic Sensors .....</b>	<b>1151</b>
	Shiwei Wang, Thomas Jacob Koickal, A. Hamilton, E. Mastropaolo, R. Latif, R. Cheung, <i>University of Edinburgh</i> ; M. Newton, L. Smith, <i>University of Stirling</i>	
11:48		
<b>B2L-K.2</b>	<b>Analog Sensing Front-End System for Harmonic Signal Classification .....</b>	<b>1155</b>
	Daniel J. White, Peter E. William, Michael W. Hoffman, Sina Balkir, <i>University of Nebraska-Lincoln</i> ; Nathan Schemm, <i>Texas Instruments Inc.</i>	
12:06		
<b>B2L-K.3</b>	<b>Real-Time Speaker Identification Using the AEREAR2 Event-Based Silicon Cochlea .....</b>	<b>1159</b>
	Cheng-Han Li, Tobi Delbruck, Shih-Chii Liu, <i>University of Zürich and ETH Zürich</i>	
12:24		
<b>B2L-K.4</b>	<b>CMOS Monolithic Chemiresistor Array with Microfluidic Channel for Micro Gas Chromatograph .....</b>	<b>1163</b>
	Xiaoyi Mu, Nathan Ward, Lin Li, Wen Li, Andrew J. Mason, <i>Michigan State University</i> ; Elizabeth Covington, Gustavo Serrano, Cagliyan Kurdak, Edward Zellers, <i>University of Michigan</i>	
12:42		
<b>B2L-K.5</b>	<b>A Self-Powered Static-Strain Sensor Based on Differential Linear Piezo-Floating-Gate Injectors .....</b>	<b>1167</b>
	Pikol Sarkar, Chenling Huang, Shantanu Chakrabartty, <i>Michigan State University</i>	



<b>B2L-L</b>	<b>Analog Signal Processing and Filtering I</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 308B	
Chair(s)	Gregorio Cappuccino, <i>University of Calabria</i>	
11:30		
<b>B2L-L.1</b>	<b>A Preamplifier for the Front-End Readout System of Particles Tracking in Secondary Electron Detectors</b> .....	<b>1171</b>
	A. Garzoñ-Camacho, B. Fernández, M.A.G. Álvarez, <i>Centro Nacional de Aceleradores</i> ; J. Ceballos, J.M. de la Rosa, <i>Universidad de Sevilla / IMSE-CNM-CSIC</i>	
11:48		
<b>B2L-L.2</b>	<b>Electronically Tunable Current-Mode Universal Biquadratic Filter Using a Single CCCFTA</b> .....	<b>1175</b>
	Montree Kumngern, <i>King Mongkut's Institute of Technology Ladkrabang</i>	
12:06		
<b>B2L-L.3</b>	<b>Distortion Analysis of the Alternative Doubly-Terminated Ladder Fully-Differential G<sub>m</sub>-C Filters</b> .....	<b>1179</b>
	Terdpun Choogorn, Jirayuth Mahattanakul, <i>Mahanakorn University of Technology</i>	
12:24		
<b>B2L-L.4</b>	<b>A Modular Transconductance Reduction Technique for Very Low-Frequency G<sub>m</sub>-C Filters</b> .....	<b>1183</b>
	Chutham Sawigun, Wouter A. Serdijn, <i>Delft University of Technology</i>	
12:42		
<b>B2L-L.5</b>	<b>A 6<sup>th</sup> Order Zero Capacitor Spread 1MHz - 10MHz Tunable CMOS Active-RC Low Pass Filter with Fast Tuning Scheme</b> .....	<b>1187</b>
	Xin Jin, Fa Foster Dai, <i>Auburn University</i>	
<b>B2L-M</b>	<b>Power and Energy Circuits and Systems</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Room 308C	
Chair(s)	Anthony Deese, <i>The College of New Jersey</i> Chika Nwankpa, <i>Drexel University</i>	
11:30		
<b>B2L-M.1</b>	<b>Triple Loop Modulation (TLM) for High Reliability and Efficiency in Power Factor Correction (PFC) System</b> .....	<b>1191</b>
	Jen-Chieh Tsai, Chia-Lung Ni, Chun-Yen Chen, Yi-Ting Chen, Chi-Lin Chen, Ke-Horng Chen, <i>National Chiao Tung University</i>	
11:48		
<b>B2L-M.2</b>	<b>Anti-Windup Dual-Loop Control of DFIG Under Unbalanced Voltage Conditions</b> .....	<b>1195</b>
	Zhen Li, Siu-Chung Wong, Chi K. Tse, <i>The Hong Kong Polytechnic University</i>	
12:06		
<b>B2L-M.3</b>	<b>Simple Circuit-Based Solution to Problem of Residential Load Participation in Demand Response</b> .....	<b>1199</b>
	Anthony S. Deese, Brian Carrigan, Elie Klein, Elliot Stein, <i>The College of New Jersey</i>	
12:24		
<b>B2L-M.4</b>	<b>Dynamic Characterization of Building Electrical Loads by Equivalent Energy Circuit Analysis</b> .....	<b>1203</b>
	Mohammed Muthalib, Chika Nwankpa, <i>Drexel University</i>	
12:42		
<b>B2L-M.5</b>	<b>Design of Modular Field Programmable Analog Array Hardware for Analysis of Large Power Systems</b> .....	<b>1207</b>
	Anthony S. Deese, <i>The College of New Jersey</i> ; Chika O. Nwankpa, Juan Jimenez, Jonathan Berardino, Jesse Hill, <i>Drexel University</i>	

<b>B3L-A</b>	<b>Image Processing and Vision for Intelligent Vehicles</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 300	
Chair(s)	Hyunchul Shin, <i>Hanyang University</i> Taechan Kim, <i>Samsung Electronics</i>	
14:30		
<b>B3L-A.1</b>	<b>Image Processing and Vision Techniques for Smart Vehicles</b> .....	<b>1211</b>
	Ehsan Ul Haq, Syed Jahanzeb Hussain Pirzada, Jingchun Piao, Teng Yu, Hyunchul Shin, <i>Hanyang University</i>	
14:48		
<b>B3L-A.2</b>	<b>Local Self-Similarity Based Backprojection for Image Upscaling</b> .....	<b>1215</b>
	HyeongKoo Lee, Tae-Chan Kim, <i>Samsung Electronics</i>	
15:06		
<b>B3L-A.3</b>	<b>Boosted-PCA for Binary Classification Problems</b> .....	<b>1219</b>
	Seaung Lok, Ham, Nojun Kwak, <i>Ajou University</i>	
15:24		
<b>B3L-A.4</b>	<b>A New Edge Directed Interpolation Algorithm Using Accurate Estimation of Edge Directional Covariance</b> .....	<b>1223</b>
	Jonghyun Bae, Yujin Yun, Kyungman Kim, Jaeseok Kim, <i>Yonsei University</i>	
<b>B3L-B</b>	<b>Arithmetic Circuits</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room E1	
Chair(s)	Vojin G. Oklobdzija, <i>New Mexico State University</i> Lan-Da Van, <i>National Chiao Tung University</i>	
14:30		
<b>B3L-B.1</b>	<b>A New Taxonomy for Reconfigurable Prefix Adders</b> .....	<b>1227</b>
	Stevo D. Bailey, Mircea R. Stan, <i>University of Virginia</i>	
14:48		
<b>B3L-B.2</b>	<b>Residue Arithmetic for Designing Multiply-Add Units in the Presence of Non-Gaussian Variation</b> .....	<b>1231</b>
	I. Kouretas, V. Paliouras, <i>University of Patras</i>	
15:06		
<b>B3L-B.3</b>	<b>A Fast and Compact Circuit for Integer Square Root Computation Based on Mitchell Logarithmic Method</b> .....	<b>1235</b>
	Joshua Yung Lih Low, Ching Chuen Jong, Jeremy Yung Shern Low, Thian Fatt Tay, Chip-Hong Chang, <i>Nanyang Technological University</i>	
15:24		
<b>B3L-B.4</b>	<b>Design and Implementation of a Radix-100 Division Unit</b> .....	<b>1239</b>
	Zhuo Wang, Liu Han, Seok-Bum Ko, <i>University of Saskatchewan</i>	
15:42		
<b>B3L-B.5</b>	<b>Correctly Rounded Constant Integer Division via Multiply-Add</b> .....	<b>1243</b>
	Theo Drane, Wai-chuen Cheung, <i>Imagination Technologies Ltd</i> ; George Constantinides, <i>Imperial College London</i>	

<b>B3L-C</b>	<b>DSP for Communications</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room E2	
Chair(s)	Xinping Huang, <i>Communication Research Center, Ottawa</i> Hakan Johansson, <i>Linköping University</i>	
14:30		
<b>B3L-C.1</b>	<b>Statistics-Based LINC Amplifier Calibration .....</b>	<b>1247</b>
	Xinping Huang, Mario Caron, <i>Communications Research Centre Canada</i>	
14:48		
<b>B3L-C.2</b>	<b>A Constant-Throughput LLL Algorithm with Deep Insertion for LR-Aided MIMO Detection .....</b>	<b>1251</b>
	Chiao-En Chen, Hang Su, <i>National Chung Cheng University</i> ; Chun-Fu Liao, Yuang-Hao Huang, <i>National Tsing-Hua University</i>	
15:06		
<b>B3L-C.3</b>	<b>Joint Data Detection and Channel Estimation for CPM in Frequency-Flat Fading Channel .....</b>	<b>1255</b>
	Wenwen Wang, Saman S. Abeysekera, <i>Nanyang Technological University</i>	
15:24		
<b>B3L-C.4</b>	<b>Memory and Computation Reduction for Least-Square Channel Estimation of Mobile OFDM Systems .....</b>	<b>1259</b>
	Tao Xu, Hao Lu, Rene van Leuken, <i>Delft University of Technology</i> ; Zijian Tang, <i>TNO Defence Security and Safety</i>	
15:42		
<b>B3L-C.5</b>	<b>Detection of Partial-Band Noise Interference in Slow FH/QPSK Systems .....</b>	<b>1263</b>
	Aye Aung, Kah Chan Teh, Kwok Hung Li, <i>Nanyang Technological University</i>	
<b>B3L-D</b>	<b>Calibration Techniques for Data Converters II</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room E3	
Chair(s)	Sameer Sonkusale, <i>Tufts University</i>	
14:30		
<b>B3L-D.1</b>	<b>Analysis and Design of a 14-Bit SAR ADC Using Self-Calibration DAC .....</b>	<b>1267</b>
	Lei SUN, Kong-Pang PUN, Alex Wong, <i>The Chinese University of Hong Kong</i>	
14:48		
<b>B3L-D.2</b>	<b>Digital Background Calibration of Redundant Split-Flash ADC in 45nm CMOS .....</b>	<b>1271</b>
	Rabeh Majidi, Anthony Crasso, John A. McNeill, <i>Worcester Polytechnic Institute</i>	
15:06		
<b>B3L-D.3</b>	<b>A Low-Power 10-Bit 50-MS/s SAR ADC Using a Parasitic-Compensated Split-Capacitor DAC .....</b>	<b>1275</b>
	Wei Guo, Shahriar Mirabbasi, <i>University of British Columbia</i>	
15:24		
<b>B3L-D.4</b>	<b>Impact of Gradient Error on Switching Sequence in High-Accuracy Thermometer-Decoded Current-Steering DACs.....</b>	<b>1279</b>
	Masood Karimian, Saeid Hashemi, Ali Naderi, Mohamad Sawan, <i>École Polytechnique de Montréal</i>	
15:42		
<b>B3L-D.5</b>	<b>A Low-Power Dynamic Comparator with Digital Calibration for Reduced Offset Mismatch .....</b>	<b>1283</b>
	Denis Guangyin Chen, Amine Bermak, <i>The Hong Kong University of Science and Technology</i>	

<b>B3L-E</b>	<b>Advanced Wireless Receiver</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room E4	
Chair(s)	Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i> Jaehyouk Choi, <i>Ulsan National Institute of Science &amp; Technology</i>	
14:30		
<b>B3L-E.1</b>	<b>A 9mW Direct RF Sampling GPS Receiver Front-End in 0.13<math>\mu</math>m BiCMOS .....</b>	<b>1287</b>
	Carsten Barth, Ivan R. Linscott, Umran S. Inan, <i>Stanford University</i>	
14:48		
<b>B3L-E.2</b>	<b>Low-Power High-Linearity Area-Efficient Multi-Mode GNSS RF Receiver in 40nm CMOS .....</b>	<b>1291</b>
	Jinbo Li, Dongpo Chen, Rui Guan, Peng Qin, Zhijian Lu, Jianjun Zhou, <i>Shanghai Jiao Tong University</i>	
15:06		
<b>B3L-E.3</b>	<b>A Reconfigurable 60GHz Subsampling Receiver Architecture with Embedded Channel Filtering .....</b>	<b>1295</b>
	B. Grave, A. Frappé, A. Kaiser, <i>IEMN-ISEN</i>	
15:24		
<b>B3L-E.4</b>	<b>A Time-to-Digital Converter Based AFC for Wideband Frequency Synthesizer .....</b>	<b>1299</b>
	Deping Huang, Jinghong Chen, <i>Southern Methodist University</i> ; Wei Li, Jin Zhou, Ning Li, Junyan Ren, <i>Fudan University</i>	
15:42		
<b>B3L-E.5</b>	<b>Effects of Quench Discretization on Superregenerative Oscillators .....</b>	<b>1303</b>
	Pere Palà-Schönwälder, Jordi Bonet-Dalmau, Francisco Del Águila-López, Ricard Sanahuja, Francesc Xavier Moncunill-Geniz, <i>Universitat Politècnica de Catalunya Barcelona Tech</i>	
<b>B3L-F</b>	<b>Circuits for Biomedical Systems III</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room E7	
Chair(s)	Yong Lian, <i>National University of Singapore</i> Guoxing Wang, <i>Shanghai Jiao Tong University</i>	
14:30		
<b>B3L-F.1</b>	<b>A Digital-to-Analog Converter for a Cortical Microelectrode Stimulator .....</b>	<b>1307</b>
	Miguel A. Martins, <i>TES Electronic Solutions</i> ; Miguel Santos, Jorge R. Fernandes, Moisés S. Piedade, <i>INESC-ID / Instituto Superior Técnico</i>	
14:48		
<b>B3L-F.2</b>	<b>A Continuous-Time Level-Crossing ADC with 1-Bit DAC and 3-Input Comparator ...</b>	<b>1311</b>
	Yongjia Li, Wouter A. Serdijn, <i>Delft University of Technology</i>	
15:06		
<b>B3L-F.3</b>	<b>A Delta Sigma IR-UWB Radar with Sub-mm Ranging Capability for Human Body Monitoring Systems .....</b>	<b>1315</b>
	Wei Zhang, Woogeun Rhee, Zhihua Wang, <i>Tsinghua University</i>	
15:24		
<b>B3L-F.4</b>	<b>A Low Power 2.4 GHz Front End with MEMS Lattice Based Channel Filtering at RF .....</b>	<b>1319</b>
	Aravind Heragu, Christian Enz, <i>Ecole Polytechnique Federale de Lausanne</i> ; David Ruffieux, <i>Swiss Center for Electronics and Microtechnology</i>	
15:42		
<b>B3L-F.5</b>	<b>Gait Analysis for Patients with Alzheimer's Disease Using a Triaxial Accelerometer .....</b>	<b>1323</b>
	Pau-Choo Chung, Yu-Liang Hsu, Chun-Yao Wang, Chien-Wen Lin, Jeen-Shing Wang, <i>National Cheng Kung University</i> ; Ming-Chyi Pai, <i>National Cheng Kung University Hospital</i>	

<b>B3L-G</b>	<b>Architecture Designs for Multimedia Computing</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 307A	
Chair(s)	Shao-Yi Chien, <i>National Taiwan University</i> Tian-Sheuan Chang, <i>National Chiao Tung University</i>	
14:30		
<b>B3L-G.1</b>	<b>Tile-Based GPU Optimizations Through ESL Full System Simulation .....</b>	<b>1327</b>
	Hsu-Yao Huang, <i>Industrial Technology Research Institute</i> ; Chi-Yuan Huang, Chung-Ho Chen, <i>National Cheng Kung University</i>	
14:48		
<b>B3L-G.2</b>	<b>A New 3-Phase Design Exploration Methodology for Video Processor Design .....</b>	<b>1331</b>
	Wing-Yee Lo, Daniel P.K. Lun, Wan-Chi Siu, <i>The Hong Kong Polytechnic University</i>	
15:06		
<b>B3L-G.3</b>	<b>A Smart Stream Controller for Efficient Implementation of Streaming Applications on the Heterogeneous Multicore Processor .....</b>	<b>1335</b>
	Shih-Hao Ou, Che-Wei Yeh, Chih-Wei Liu, <i>National Chiao Tung University</i> ; Tai-Jyi Lin, <i>National Chung Cheng University</i>	
15:24		
<b>B3L-G.4</b>	<b>FPGA Implementation of Heterogeneous Multicore Platform with SIMD/MIMD Custom Accelerators .....</b>	<b>1339</b>
	Hasitha Muthumala Waidyasooriya, Yasuhiro Takei, Masanori Hariyama, Michitaka Kameyama, <i>Tohoku University</i>	
15:42		
<b>B3L-G.5</b>	<b>A Simulation-Based Study for DRAM Power Reduction Strategies in GPGPUs .....</b>	<b>1343</b>
	Hyojin Choi, Kyuyeon Hwang, Jaewoo Ahn, Wonyong Sung, <i>Seoul National University</i>	
<b>B3L-H</b>	<b>Nanodevices and Circuits</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 307B	
Chair(s)	Ming-Dou Ker, <i>National Chiao Tung University</i> Shyh-Jye Jou, <i>National Chiao Tung University</i>	
14:30		
<b>B3L-H.1</b>	<b>Cost-Efficient Decimal Adder Design in Quantum-Dot Cellular Automata .....</b>	<b>1347</b>
	Weiqiang Liu, Liang Lu, Máire O'Neill, <i>Queen's University Belfast</i> ; Earl E. Swartzlander Jr., <i>The University of Texas at Austin</i>	
14:48		
<b>B3L-H.2</b>	<b>Novel Asynchronous Registers for Sequential Circuits with Quantum-Dot Cellular Automata .....</b>	<b>1351</b>
	Raj Katti, Sarjan Shrestha, <i>North Dakota State University</i>	
15:06		
<b>B3L-H.3</b>	<b>A Novel Design of <math>4 \times 4</math> Ram Implementation in Quantum-Dot Cellular Automata (QCA) .....</b>	<b>B#5</b>
	Reza Sabbaghi-Nadooshan, Moein Kianpour, <i>Islamic Azad University</i>	
15:24		
<b>B3L-H.4</b>	<b>A Cryogenic Single Electron Transistor Readout Circuit: Practical Issues and Measurement Considerations .....</b>	<b>1359</b>
	Kushal Das, Torsten Lehmann, <i>The University of New South Wales</i>	
15:42		
<b>B3L-H.5</b>	<b>Performance Analysis of CNFET Based Circuits in the Presence of Fabrication Imperfections .....</b>	<b>1363</b>
	Malgorzata Chrzanowska-Jeske, Rehman Ashraf, Rajeev K. Nain, Siva G. Narendra, <i>Portland State University</i>	

<b>B3L-J</b>	<b>Analog and Mixed Mode Circuits and Systems</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 307C	
Chair(s)	Gianluca Setti, <i>University of Ferrara</i> Zbigniew Galias, <i>AGH University of Science and Technology</i>	
14:30		
<b>B3L-J.1</b>	<b>A Low-Power Fast-Settling Bond-Wire Frequency Synthesizer with a Dynamic-Bandwidth Scheme</b> .....	<b>1367</b>
	Bo Zhao, Huazhong Yang, Hui Wang, <i>Tsinghua University</i>	
14:48		
<b>B3L-J.2</b>	<b>A 5-10GHz Low Power Bang-Bang All Digital PLL Based on Programmable Digital Loop Filter</b> .....	<b>1371</b>
	Sally Safwat, Amr Lotfy, Maged Ghoneima, Yehea Ismail, <i>Nile University</i>	
15:06		
<b>B3L-J.3</b>	<b>Quadrature Generation Techniques in CMOS Relaxation Oscillators</b> .....	<b>1375</b>
	Sankaran Aniruddhan, <i>Indian Institute of Technology Madras</i>	
15:24		
<b>B3L-J.4</b>	<b>A Fast Charge Pump PLL Using a Bang-Bang Frequency Comparator with Dead Zone</b> .....	<b>1379</b>
	Vahideh Sadat Sadeghi, Hossein Miar Naimi, <i>Babol University of Tehnology</i> ; Michael Peter Kennedy, <i>University College Cork</i>	
15:42		
<b>B3L-J.5</b>	<b>A Transformer-Based Filtering Technique to Lower LC-Oscillator Phase Noise</b> .....	<b>1383</b>
	Qing Jin, Weidong Geng, <i>Nankai University</i> ; Kaiyuan Yang, Chunyuan Zhou, Dongxu Yang, Lei Zhang, Yan Wang, Zhiping Yu, <i>Tsinghua University</i>	
<b>B3L-K</b>	<b>Sensor Devices</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 308A	
Chair(s)	Milutin Stanecevic, <i>SUNY, Stonybrooke</i> Jennifer Olson Hasler, <i>Georgia Tech</i>	
14:30		
<b>B3L-K.1</b>	<b>Investigation of Characteristics of Tungsten Oxide with Different Work Pressures in Photoelectrochromic Cell</b> .....	<b>1387</b>
	Jung-Chuan Chou, Po-Hao Shih, <i>National Yunlin University of Science and Technology</i>	
14:48		
<b>B3L-K.2</b>	<b>Bio-Inspired Gas Recognition Based on the Organization of the Olfactory Pathway</b> .....	<b>1391</b>
	Jaber Hassan J Al Yamani, Farid Boussaid, <i>The University of Western Australia</i> ; Amine Bermak, <i>Hong Kong University of Science and Technology</i>	
15:06		
<b>B3L-K.3</b>	<b>A Programmable Mutual Capacitance Sensing Circuit for a Large-Sized Touch Panel</b> .....	<b>1395</b>
	Hyun Kyu Ouh, Jungwoo Lee, Sangyun Han, Hyunjip Kim, Insik Yoon, Soonwon Hong, <i>Test Laboratories International, Inc.</i>	
15:24		
<b>B3L-K.4</b>	<b>A Hall Sensor Microsystem with Continuous Gain Calibration Using Fully Integrated References</b> .....	<b>1399</b>
	Andrea Ajbl, Marc Pastre, Maher Kayal, <i>École Polytechnique Fédérale de Lausanne</i>	
15:42		
<b>B3L-K.5</b>	<b>A New Memristor Based on NiTi Smart Alloys</b> .....	<b>1403</b>
	Evrripides Kyriakides, Constantinos Hadjistassou, Julius Georgiou, <i>University of Cyprus</i>	

<b>B3L-M</b>	<b>Information Security Related Circuits &amp; Systems</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Room 308C	
Chair(s)	John McCanny, <i>Queen's University Belfast</i>	
14:30		
<b>B3L-M.1</b>	<b>Custom Purpose Regular Expression Processor Architecture for Network Processing .....</b>	<b>1407</b>
	Sakir Sezer, Dwayne Burns, <i>Titan IC Systems Ltd</i>	
14:48		
<b>B3L-M.2</b>	<b>Application-Oriented SHA-256 Hardware Design for Low-Cost RFID .....</b>	<b>1412</b>
	Xiaolin Cao, Maire O'Neill, <i>Queen's University Belfast</i>	
15:06		
<b>B3L-M.3</b>	<b>Content-Dependent Feature Selection for Block-Based Image Steganalysis .....</b>	<b>1416</b>
	Seongho Cho, Martin Gawecki, C.-C. Jay Kuo, <i>University of Southern California</i>	
15:24		
<b>B3L-M.4</b>	<b>Dual Video Watermarking for CCL Protection and Manipulation Detection .....</b>	<b>1420</b>
	Sung-Won Moon, Hee-Dong Kim, Ji-won Lee, Heung-Kyu Lee, <i>Korea Advanced Institute of Science and Technology</i>	
15:42		
<b>B3L-M.5</b>	<b>Secure Medical Information Exchange with Reversible Data Hiding .....</b>	<b>1424</b>
	Hsiang-Cheh Huang, Wei-Hao Lai, <i>National University of Kaohsiung</i> ; Wai-Chi Fang, <i>National Chiao-Tung University</i>	
<b>B4L-A</b>	<b>VLSI for Image &amp; Video Systems</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 300	
Chair(s)	Tian-Sheuan Chang, <i>National Chiao Tung University</i> Vasily Moshnyaga, <i>Fukuoka University</i>	
16:20		
<b>B4L-A.1</b>	<b>HDR-ARtiSt: High Dynamic Range Advanced Real-Time Imaging System .....</b>	<b>1428</b>
	Pierre-Jean Lapray, Barthélemy Heyrman, Matthieu Rossé, Dominique Ginhac, <i>University Burgundy</i>	
16:38		
<b>B4L-A.2</b>	<b>A Parallel CAVLC Design for 4096x2160p Encoder .....</b>	<b>1432</b>
	Huibo Zhong, Yibo Fan, Xiaoyang Zeng, <i>Fudan University</i>	
16:56		
<b>B4L-A.3</b>	<b>A High Speed Feature Matching Architecture for Real-Time Video Stabilization .....</b>	<b>1436</b>
	Keng-Yen Huang, Yi-Min Tsai, Tien-Ju Yang, Liang-Gee Chen, <i>National Taiwan University</i>	
17:14		
<b>B4L-A.4</b>	<b>A 775-<math>\mu</math>W/fps/view H.264/MVC Decoder Chip Compliant with 3D Blu-Ray Specifications .....</b>	<b>1440</b>
	Chi-Cheng Ju, Tsu-Ming Liu, Yung-Chang Chang, Chih-Ming Wang, Chun-Chia Chen, Hue-Min Lin, Chia-Yun Cheng, Min-Hao Chiu, Sheng-Jen Wang, Ping Chao, MJ Hu, Hao-Wei Li, Chung-Hung Tsai, <i>Mediatek Inc.</i>	
17:32		
<b>B4L-A.5</b>	<b>Impact of Process Variations on Computers Used for Image Processing .....</b>	<b>1444</b>
	Suraj Sindhia, Fa Foster Dai, Vishwani D.Agrawal, <i>Auburn University</i> ; Virendra Singh, <i>Indian Institute of Science</i>	

<b>B4L-B</b>	<b>Cryptographic Engine Design</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room E1	
Chair(s)	Hsie Chia Chang, <i>National Chiao Tung University</i> Xinmiao Zhang, <i>Case Western Reserve University</i>	
16:20		
<b>B4L-B.1</b>	<b>Designing High-Throughput Hardware Accelerator for Stream Cipher HC-128 .....</b>	<b>1448</b>
	Anupam Chattopadhyay, Ayesha Khalid, <i>RWTH Aachen University</i> ; Subhamoy Maitra, Shashwat Raizada, <i>Indian Statistical Institute</i>	
16:38		
<b>B4L-B.2</b>	<b>Integrated Capacitor Switchbox for Security Protection .....</b>	<b>1452</b>
	Matthew Mayhew, Radu Muresan, <i>University of Guelph</i>	
16:56		
<b>B4L-B.3</b>	<b>A High-Performance Elliptic Curve Cryptographic Processor over GF(p) with SPA Resistance .....</b>	<b>1456</b>
	Szu-Chi Chung, Jen-Wei Lee, Hsie-Chia Chang, Chen-Yi Lee, <i>National Chiao Tung University</i>	
17:14		
<b>B4L-B.4</b>	<b>Current Mode Multiple-Valued Adder for Cryptography Processors .....</b>	<b>1460</b>
	Ashley Novak, Farinoush Saffar, Mitra Mirhassani, Huapeng Wu, <i>University of Windsor</i>	
17:32		
<b>B4L-B.5</b>	<b>Extendable Point-to-Multi-Point Protocol Processor for 10G-EPON MAC SoCs .....</b>	<b>1464</b>
	Naoki Miura, Akihiko Miyazaki, Junichi Kato, Nobuyuki Tanaka, Masami Urano, Mamoru Nakanishi, Tsugumichi Shibata, <i>NTT Corporation</i>	
<b>B4L-C</b>	<b>DSP Implementation and Embedded Systems</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room E2	
Chair(s)	Oscar Gustafsson, <i>Linköping University</i> Mohsin M. Jamali, <i>University of Toledo</i>	
16:20		
<b>B4L-C.1</b>	<b>Order Reduction for Roesser State-Space Model Based on Elementary Operations .....</b>	<b>1468</b>
	Shi Yan, <i>Lanzhou University</i> ; Li Xu, <i>Akita Prefectural University</i> ; Yegui Xiao, <i>Prefectural University</i>	
16:38		
<b>B4L-C.2</b>	<b>Weight Sorting Based Scheme and Architecture for Distributed Particle Filters .....</b>	<b>1472</b>
	Ning Zheng, Yun Pan, Xiaolang Yan, Ruohong Huan, <i>Zhejiang University</i>	
16:56		
<b>B4L-C.3</b>	<b>CMOS Implementation of a Fast 4-2 Compressor for Parallel Accumulations .....</b>	<b>1476</b>
	Amir Fathi , Sarkis Azizian , Khayrollah Hadidi , Abdollah Khoei, Amin Chegeni, <i>Urmia University</i>	
17:14		
<b>B4L-C.4</b>	<b>Efficient Architectures for VLSI Implementation of 2-D Discrete Hadamard Transform .....</b>	<b>1480</b>
	Basant Kumar Mohanty, Subodh Kumar Singhal, <i>Jaypee University of Engineering and Technology</i> ; Pramod Kumar Meher, <i>Institute for Infocomm Research</i>	
17:32		
<b>B4L-C.5</b>	<b>Error-Free VLSI Architecture for the 2-D Daubechies 4-Tap Filter Using Algebraic Integers .....</b>	<b>1484</b>
	Shiva Madishetty, Arjuna Madanayake, Dale Mugler, <i>The University of Akron, Akron</i> ; Renato J. Cintra, <i>Universidade Federal de Pernambuco</i> ; Vassil S. Dimitrov, <i>University of Calgary</i>	



<b>B4L-D</b>	<b>Low-Power Wireless Circuits</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room E3	
Chair(s)	Mohamad Sawan, <i>Ecole Polytechnique de Montreal</i>	
16:20		
<b>B4L-D.1</b>	<b>Low-Power and Low-Area CMOS Quadrature RC Oscillator with Capacitive Coupling</b> .....	<b>1488</b>
	João Casaleiro, Luis B. Oliveira, <i>Universidade Nova de Lisboa</i> ; Igor M. Filanovsky, <i>University of Alberta</i>	
16:38		
<b>B4L-D.2</b>	<b>A Low-Power RF Front-End with Merged LNA, Differential Power Splitter, and Quadrature Mixer for IEEE 802.15.4 (ZigBee) Applications</b> .....	<b>1492</b>
	Shuenn-Yuh Lee, Liang-Hung Wang, Tsung-Yen Chen, Chih-Tao Yu, <i>National Chung-Cheng University</i>	
16:56		
<b>B4L-D.3</b>	<b>A 3<math>\mu</math>W Fully-Differential RF Envelope Detector for Ultra-Low Power Receivers</b> .....	<b>1496</b>
	Barend van Liempd, Maja Vidojkovic, Cui Zhou, Pieter Harpe, Guido Dolmans, <i>Holst Centre/imec</i> ; Maarten Lont, Dusan Milosevic, <i>Eindhoven University of Technology</i>	
17:14		
<b>B4L-D.4</b>	<b>A 115<math>\mu</math>W UWB Programmable Gain Amplifier for Intelligent Tire Personal Area Network</b> .....	<b>1500</b>
	M. De Matteis, G. Cocciolo, S. D'Amico, <i>University of Salento</i> ; A. Baschiroto, <i>University of Milano Bicocca</i> ; M. Sabatini, <i>Pirelli Tyre Spa</i>	
17:32		
<b>B4L-D.5</b>	<b>A 3.3<math>\mu</math>W Dual-Modulus Frequency Divider with 189% Locking Range for MICS Band Applications</b> .....	<b>1504</b>
	M. Shahriar Jahan, Jeremy H. Holleman, <i>The University of Tennessee</i>	
<b>B4L-E</b>	<b>MIMO System</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room E4	
Chair(s)	Tokunbo Ogunfunmi, <i>Santa Clara University</i> Lan-Da Van, <i>National Chiao Tung University</i>	
16:20		
<b>B4L-E.1</b>	<b>An Efficient QR Decomposition Design for MIMO Systems</b> .....	<b>1508</b>
	Jing-Shiun Lin, Yin-Tsung Hwang, Po-Han Chu, Ming-Der Shieh, Shih-Hao Fang, <i>National Chung Hsing University</i>	
16:38		
<b>B4L-E.2</b>	<b>A Synchronization Scheme Based on Gaussian Pulses for Cooperative MIMO OFDM Systems</b> .....	<b>1512</b>
	Chin-Liang Wang, Ying-Yi Chen, Hung-Chin Wang, <i>National Tsing Hua University</i>	
16:56		
<b>B4L-E.3</b>	<b>An Improved Coarse Synchronization Scheme in 3GPP LTE Downlink OFDM Systems</b> .....	<b>1516</b>
	Na Ding, Chen Chen, Wenhua Fan, Yun Chen, Xiaoyang Zeng, <i>Fudan University</i>	
17:14		
<b>B4L-E.4</b>	<b>Low Complexity FFT/IFFT Processor for High-Speed OFDM System Using Efficient Multiplier Scheduling</b> .....	<b>1520</b>
	Jea Hack Lee, Eun Ji Kim, Myung Hoon Sunwoo, <i>Ajou University</i>	
17:32		
<b>B4L-E.5</b>	<b>An SFBC-OFDM Receiver with MLSE Equalizer to Combat Multiple Frequency Offsets</b> .....	<b>1524</b>
	Jyun-Yu Lee, Hsin-De Lin, Tzu-Hsien Sang, <i>National Chiao-Tung University</i>	

<b>B4L-F</b>	<b>Biomedical &amp; Live Science Systems I</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room E7	
Chair(s)	Pantelis Georgiou, <i>Imperial College London</i> Basu Sanakar, <i>National Science Foundation, USA</i>	
16:20		
<b>B4L-F.1</b>	<b>An Axon Emulator for Evaluation of Nerve Recording Systems .....</b>	<b>1528</b>
	Robert Rieger, Jing-Yuan Chen, <i>National Sun Yat-Sen University</i>	
16:38		
<b>B4L-F.2</b>	<b>NeuroBetaMed: a Re-Configurable Wavelet-Based Event Detection Circuit for in vitro Biological Signals .....</b>	<b>1532</b>
	Adam Quotb, Yannick Bornat, Matthieu Raoux, Jochen Lang, Sylvie Renaud, <i>L'Université de Bordeaux</i>	
16:56		
<b>B4L-F.3</b>	<b>A Blink Restoration System with Contralateral EMG Triggered Stimulation and Real-Time Software Based Artifact Blanking .....</b>	<b>1536</b>
	Jun Jia, Xin Yi, Mengde Wang, Guoxing Wang, Simin Deng, Guofang Shen, <i>Shanghai Jiao Tong University</i>	
17:14		
<b>B4L-F.4</b>	<b>A 2.1<math>\mu</math>W Real-Time Reconfigurable Wearable BAN Controller with Dual Linked List Structure .....</b>	<b>1540</b>
	Seulki Lee, Taehwan Roh, Sunjoo Hong, Hoi-Jun Yoo, <i>Korea Advanced Institute of Science and Technology</i>	
17:32		
<b>B4L-F.5</b>	<b>A CMOS Architecture Allowing Parallel DNA Comparison for on-Chip Assembly .....</b>	<b>1544</b>
	Yuanqi Hu, Yan Liu, Christofer Toumazou, Pantelis Georgiou, <i>Imperial College London</i>	
<b>B4L-G</b>	<b>Efficient Implementations of Media Coding Systems</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 307A	
Chair(s)	Oscar Au, <i>Hong Kong University of Science &amp; Technology</i> Feng Wu, <i>Microsoft Research Asia, China</i>	
16:20		
<b>B4L-G.1</b>	<b>Joint Rate-Distortion Optimization for H.264/AVC Intra Coding Based on Cluster Computing .....</b>	<b>1548</b>
	Wei Xiao, Guangming Shi, <i>Xidian University</i> ; Jizheng Xu, Feng Wu, <i>Microsoft Research Asia</i>	
16:38		
<b>B4L-G.2</b>	<b>Base-Layer Motion Estimation with Limited Enhancement-Layer Search Window for Hardware H.264/SVC Encoder .....</b>	<b>1552</b>
	Do-Kyoung Kwon, Hyung J. Kim, <i>Systems and Applications R&amp;D Center</i>	
16:56		
<b>B4L-G.3</b>	<b>Data Reusable Search Scan Methods for Low Power Motion Estimation .....</b>	<b>1556</b>
	Sung Dae Kim, Myung Hoon Sunwoo, <i>Ajou University</i> ; Jin Wook Baek, <i>Samsung Electronics</i> ; Jin Wook Burm, <i>Sogang University</i>	
17:14		
<b>B4L-G.4</b>	<b>Fast Sub-Pixel Motion Estimation with Simplified Modeling in HEVC .....</b>	<b>1560</b>
	Wei Dai, Oscar C. Au, Sijin Li, Lin Sun, Ruobing Zou, <i>Hong Kong, University of Science and Technology</i>	
17:32		
<b>B4L-G.5</b>	<b>Mode Dependent Deblocking Filter for Video Coding .....</b>	<b>1564</b>
	Qingbo Wu, Hongliang Li, <i>University of Electronic Science and Technology of China</i>	

<b>B4L-H</b>	<b>Design Technology for Enhancing Circuit Reliability</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 307B	
Chair(s)	Chua-Chin Wang, <i>National Sun Yat-sen University</i> Wai-Chi Fang, <i>National Chiao Tung University</i>	
16:20		
<b>B4L-H.1</b>	<b>A Framework to Study Time-Dependent Variability in Circuits at Sub-35nm Technology Nodes .....</b>	<b>1568</b>
	Tong Boon Tang, <i>Universiti Teknologi PETRONAS</i> ; Alan F.Murray, <i>University of Edinburgh</i> ; Binjie Cheng, Asen Asenov, <i>University of Glasgow</i>	
16:38		
<b>B4L-H.2</b>	<b>Soft Error Tolerant Latch Design with Low Cost for Nanoelectronic Systems .....</b>	<b>1572</b>
	Haiqing Nan, Ken Choi, <i>Illinois Institute of Technology</i>	
16:56		
<b>B4L-H.3</b>	<b>A Simple Keeper Topology to Reduce Delay Variations in Nanometer Domino Logic .....</b>	<b>1576</b>
	Massimo Alioto, <i>Università di Siena</i> ; Gaetano Palumbo, Melita Pennisi, <i>Università di Catania</i>	
17:14		
<b>B4L-H.4</b>	<b>Design of Ring Oscillator Structures for Measuring Isolated NBTI and PBTI .....</b>	<b>1580</b>
	Tony T. Kim, <i>VIRTUS Nanyang Technological University</i> ; Pong-Fei Lu, <i>IBM T. J. Watson Research Center</i> ; Chris H. Kim, <i>University of Minnesota</i>	
17:32		
<b>B4L-H.5</b>	<b>Modeling and Characterization of CNT-Based TSV for High Frequency Applications .....</b>	<b>1584</b>
	Sukeshwar Kannan, Bruce Kim, Anurag Gupta, <i>The University of Alabama</i> ; Li Li, <i>Cisco System Inc.</i> ; Seok-Ho Noh, <i>Andong National University</i> ; Sang-Bock Cho, <i>University of Ulsan</i>	
<b>B4L-J</b>	<b>Memristors and Memristive Circuits</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 307C	
Chair(s)	Ronald Tetzlaff, <i>TU Dresden</i>	
16:20		
<b>B4L-J.1</b>	<b>Memristors and Memristive Circuits - An Overview .....</b>	<b>1590</b>
	Ronald Tetzlaff, Torsten Schmidt, <i>Technische Universität Dresden</i>	
16:38		
<b>B4L-J.2</b>	<b>Recent Progress in Redox-Based Resistive Switching .....</b>	<b>1596</b>
	Rainer Waser, <i>Forschungszentrum Jülich &amp; RWTH Aachen University</i> ; Stephan Menzel, <i>RWTH Aachen University</i> ; Vikas Rana, <i>Forschungszentrum Jülich</i>	
16:56		
<b>B4L-J.3</b>	<b>Modeling Dynamics of Memristive Nano-Structures .....</b>	<b>1600</b>
	Fernando Corinto, Alon Ascoli, Marco Gilli, <i>Politecnico di Torino</i>	
17:14		
<b>B4L-J.4</b>	<b>Memristor Circuit for Artificial Synaptic Weighting of Pulse Inputs .....</b>	<b>1604</b>
	Maheshwar Pd. Sah, Changju Yang, Hyongsuk Kim, <i>Chonbuk National University</i> ; Leon O Chua, <i>University of California, Berkeley</i>	
17:32		
<b>B4L-J.5</b>	<b>Memristive Computing- Multiplication and Correlation .....</b>	<b>1608</b>
	Sangho Shin, Kyungmin Kim, Sung-Mo "Steve" Kang, <i>University of California, Santa Cruz</i>	

<b>B4L-K</b>	<b>Image and Vision Sensors</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 308A	
Chair(s)	Alex Fish, <i>Ben-Gurion University</i>	
16:20		
<b>B4L-K.1</b>	<b>A Real-Time Motion-Feature-Extraction Image Processor Employing Digital-Pixel-Sensor-Based Parallel Architecture .....</b>	<b>1612</b>
	Hongbo Zhu, Tadashi Shibata, <i>The University of Tokyo</i>	
16:38		
<b>B4L-K.2</b>	<b>A 148dB Focal-Plane Tone-Mapping QCIF Imager .....</b>	<b>1616</b>
	S. Vargas-Sierra, G. Liñán-Cembrano, A. Rodríguez-Vázquez, <i>Universidad de Sevilla / IMSE-CNM-CSIC</i>	
16:56		
<b>B4L-K.3</b>	<b>New FPN Correction Method for PD-Storage Dual-Capture CMOS Image Sensor Using a Nonfully Depleted Pinned Photodiode .....</b>	<b>1620</b>
	Jiwon Lee, Inkyu Baek, Kyoungsoon Yang, <i>Korea Advanced Institute of Science and Technology</i>	
17:14		
<b>B4L-K.4</b>	<b>A Time-Delay-Integration CMOS Image Sensor with Pipelined Charge Transfer Architecture .....</b>	<b>1624</b>
	Hang Yu, Xinyuan Qian, Shoushun Chen, Kay Soon Low, <i>Nanyang Technological University</i>	
17:32		
<b>B4L-K.5</b>	<b>A Hybrid-Readout and Dynamic-Resolution Motion Detection Image Sensor for Object Tracking .....</b>	<b>1628</b>
	Xiangyu Zhang, Shoushun Chen, <i>Nanyang Technological University</i>	
<b>B4L-M</b>	<b>Complex Systems and Networks: Nexus of All Realities in Circuits and Systems</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Room 308C	
Chair(s)	Guanrong Chen, <i>City University of Hong Kong</i> Jinhu Lu, <i>RMIT University</i>	
16:20		
<b>B4L-M.1</b>	<b>Complex Network Approach to Communication Network Performance Analysis .....</b>	<b>1632</b>
	Jiajing Wu, Chi K. Tse, Francis C.M. Lau, Ivan W.H. Ho, <i>The Hong Kong Polytechnic University</i>	
16:38		
<b>B4L-M.2</b>	<b>Contingency Constrained Optimal Power Flow Solutions in Complex Network Power Grids .....</b>	<b>1636</b>
	Baha Alzalg, <i>Washington State University</i> ; Catalina Anghel, Mustazee Rahman, <i>University of Toronto</i> ; Wenying Gan, <i>UCLA</i> ; Qing Huang, <i>Arizona State University</i> ; Alex Shum, <i>University of Waterloo</i> ; Chai Wah Wu, <i>IBM T. J. Watson Res. Center</i>	
16:56		
<b>B4L-M.3</b>	<b>On Adaptive Bounded Synchronization in Power Network Models .....</b>	<b>1640</b>
	P. DeLellis, M. di Bernardo, <i>Università degli Studi di Napoli Federico II</i>	
17:14		
<b>B4L-M.4</b>	<b>Red-F Routing Protocol for Complex Networks .....</b>	<b>1644</b>
	Wilson Wang-Kit Thong, Guanrong Chen, <i>City University of Hong Kong</i> ; Ljiljana Trajković, <i>Simon Fraser University</i>	

<b>B5P-N</b>	<b>Interconnection &amp; Clock Design I</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Paul K. Ampadu, <i>Massachusetts Institute of Technology</i> An-Yeu Wu, <i>National Taiwan University</i>	
<b>B5P-N.1</b>	<b>An Output Tracking Delay-Recycled Clock Skew-Compensation and/or Duty-Cycle-Correction Circuit .....</b>	<b>1648</b>
	Shih-Nung Wei, <i>National Chung Cheng University</i> ; Yi-Ming Wang, Jyun-Hua Peng, <i>National Chi Nan University</i>	
<b>B5P-N.2</b>	<b>A Chip-to-Chip Clock-Deskewing Circuit for 3-D ICs .....</b>	<b>1652</b>
	Ai-Jia Chuang, Yu Lee, Ching-Yuan Yang, <i>National Chung Hsing University</i>	
<b>B5P-N.3</b>	<b>Energy Metrics for Power Efficient Crosslink and Mesh Topologies .....</b>	<b>1656</b>
	Inna Vaisband, Eby G. Friedman, <i>University of Rochester</i> ; Ran Ginosar, Avinoam Kolodny, <i>Technion-Israel Institute of Technology</i>	
<b>B5P-N.4</b>	<b>A 16Gbps Low Power Self-Timed SerDes Transceiver for Multi-Core Communication .....</b>	<b>1660</b>
	Ezz El-Din Hussein, Sally Safwat, Maged Ghoneima, Yehea Ismail, <i>Nile University</i>	
<b>B5P-N.5</b>	<b>Reliable and Low-Power Clock Distribution Using Pre- and Post-Silicon Delay Adaptation in High-Level Synthesis .....</b>	<b>1664</b>
	Keisuke Inoue, Mineo Kaneko, <i>Japan Advanced Institute of Science and Technology</i>	
<b>B5P-P</b>	<b>Interconnection &amp; Clock Design II</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Masud Chowdhury, <i>University of Illinois at Chicago</i> Volkan Kursun, <i>Hong Kong University of Science &amp; Technology</i>	
<b>B5P-P.1</b>	<b>A Novel BMNoC Configuration Algorithm Utilizing Communication Volume and Locality Among Cores .....</b>	<b>1668</b>
	Seungju Lee, Nozomu Togawa, <i>Waseda University</i> ; Takashi Aoki, Akira Onozawa, <i>NTT Microsystem Integration Laboratories</i>	
<b>B5P-P.2</b>	<b>Transient Error Management for Partially Adaptive Router in Network-on-Chip (NoC) .....</b>	<b>1672</b>
	Qiaoyan Yu, <i>University of New Hampshire</i> ; Paul Ampadu, <i>University of Rochester</i>	

<b>B5P-Q</b>	<b>Image Analysis &amp; Processing II</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Mohsin M. Jamali, <i>University of Toledo</i> Wan-Chi Siu, <i>Hong Kong Polytechnic University</i>	
<b>B5P-Q.1</b>	<b>A Novel Feature Extraction Algorithm for Classification of Bird Flight Calls .....</b>	<b>1676</b>
	Selin Bastas, Mohammad Wadood Majid, Golrokh Mirzaei, Mohsin M. Jamali, <i>University of Toledo</i> ;	
	Jeremy Ross, Peter V. Gorsevski, Joseph Frizado, Verner P. Bingman, <i>Bowling Green State University</i>	
<b>B5P-Q.2</b>	<b>VLSI Implementation of Color Interpolation in Color Difference Spaces .....</b>	<b>1680</b>
	Hongming Chen, Yuhua Cheng, <i>Peking University</i>	
<b>B5P-Q.3</b>	<b>Low-Complexity Pruning for Accelerating Corner Detection .....</b>	<b>1684</b>
	Meiqing Wu, Nirmala Ramakrishnan, Siew-Kei Lam, Thambipillai Srikanthan, <i>Nanyang Technological University</i>	
<b>B5P-Q.4</b>	<b>Image Super-Resolution via Dual-Dictionary Learning and Sparse Representation ..</b>	<b>1688</b>
	Jian Zhang, Debin Zhao, <i>Harbin Institute of Technology</i> ;	
	Chen Zhao, Ruiqin Xiong, Siwei Ma, <i>Peking University</i>	
<b>B5P-R</b>	<b>Circuits and Systems for Media Processing</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Gwo-Giun Lee, <i>National Cheng Kung University</i> Chia-Wen Lin, <i>National Tsing Hua University</i>	
<b>B5P-R.1</b>	<b>A Visually-Lossless Data Hiding Method Based on Histogram Modification .....</b>	<b>1692</b>
	Masaaki Fujiyoshi, Hitoshi Kiya, <i>Tokyo Metropolitan University</i>	
<b>B5P-R.2</b>	<b>Improving CCA via Spectral Components Selection for Facial Expression Recognition .....</b>	<b>1696</b>
	Xiaoyan Zhou, <i>Nanjing University of Information Science &amp; Technology</i> ;	
	Wenming Zheng, Minghai Xin, <i>Southeast University</i>	
<b>B5P-R.3</b>	<b>An ASIC Design for 3D Depth Control of Full HD Resolution Stereoscopic Video ....</b>	<b>1700</b>
	Jeong-Hyu Yang, Jinseok Im, Kyoungwon Lim, Seung-Jong Choi, <i>LG Electronics Inc.</i>	
<b>B5P-R.4</b>	<b>A 6.24-Gb/s Wide-Input-Range Serializer ASIC Using Fixed-Data-Rate Scheme .....</b>	<b>1704</b>
	Kang-Yeob Park, Woo-Young Choi, <i>Yonsei University</i> ;	
	Seon-Young Lee, Won-Seok Oh, <i>Korea Electronics Technology Institute</i>	

<b>B5P-S</b>	<b>Quality Assurance for Media Processing and Communication</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Joern Ostermann, <i>Leibniz University Hannover</i> Wen-Hsiao Peng, <i>National Chiao Tung University</i>	
<b>B5P-S.1</b>	<b>Modified MQ Arithmetic Decoder Architecture for Error Resilient JPEG2000 Applications</b> .....	<b>B#5</b>
	<i>S. Zezza, M. Martina, G. Masera, Politecnico di Torino;</i> <i>S. Nooshabadi, Michigan Technological University</i>	
<b>B5P-S.2</b>	<b>Quality of Experience Assessment for Stereoscopic Images</b> .....	<b>1712</b>
	Feng Qi, Debin Zhao, <i>Harbin Institute of Technology;</i> Tingting Jiang, Siwei Ma, <i>Peking University</i>	
<b>B5P-S.3</b>	<b>Impact of Encoding Configurations on the Perceived Quality of High Definition Videoconference Sequences</b> .....	<b>1716</b>
	Alexandre Ciancio, José F. L. de Oliveira, Cassius D. Estrada, Eduardo A. B. da Silva, <i>Universidade Federal do Rio de Janeiro;</i> Amir Said, <i>HP Labs</i>	
<b>B5P-S.4</b>	<b>Efficient Improvement of Side Information in GOB-Based DVC System</b> .....	<b>1720</b>
	Tsung-Che Wu, Ji-Hua Hsu, Chang-Ming Lee, Jui-Chiu Chiang, <i>National Chung Cheng University</i>	
<b>B5P-S.5</b>	<b>Analysis and Design for Text Readability Increase in Quad-Structure RGBW Color EPD</b> .....	<b>1724</b>
	Kyung Joon Kwon, Sung Kyu Lee, Sanghun Kim, Su Yeong Cho, Young Hwan Kim, <i>Pohang University of Science and Technology</i>	
<b>B5P-T</b>	<b>Design of Optical Receiver and Amplifier</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Byunghoo Jung, <i>Purdue University</i> Sau-Gee Chen, <i>National Chiao Tung University</i>	
<b>B5P-T.1</b>	<b>10Gbit/s 2mW Inductorless Transimpedance Amplifier</b> .....	<b>1728</b>
	Mohamed Atef, Horst Zimmermann, <i>Vienna University of Technology</i>	
<b>B5P-T.2</b>	<b>A 1-V CMOS Receiver Front-End for High-Speed Si-POF Links</b> .....	<b>1732</b>
	C. Gimeno, C. Aldea, S. Celma, F. Aznar, C. Azcona, <i>Universidad de Zaragoza</i>	
<b>B5P-T.3</b>	<b>A 40 Gbps Optical Receiver Analog Front-End in 65 nm CMOS</b> .....	<b>1736</b>
	Shun-Tien Chou, Shih-Hao Huang, Zheng-Hao Hong, Wei-Zen Chen, <i>National Chiao-Tung University</i>	
<b>B5P-T.4</b>	<b>2.5Gbit/s Transimpedance Amplifier Using Noise Cancelling for Optical Receivers</b> .....	<b>1740</b>
	Mohamed Atef, Horst Zimmermann, <i>Vienna University of Technology</i>	
<b>B5P-T.5</b>	<b>A 60GHz Power Amplifier Using 8-Way Parallel-Series-Parallel Power Combining Technique</b> .....	<b>B#5</b>
	<i>Dajie Zeng, Song Han, Lei Zhang, Qing Jin, Yan Wang, Zhiping Yu, Tsinghua University;</i> <i>Yaohui Zhang, Institue of Sinano</i>	

<b>B5P-U</b>	<b>Wireless Communication Circuit and Scheme</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Susanto Rahardja, <i>A-STAR, Institute for Infocomm Research</i>	
<b>B5P-U.1</b>	<b>A Novel High Rate Transmission Scheme for Space Time Coding with Low Decoding Complexity .....</b>	<b>1748</b>
	Yier Yan, <i>Guangzhou University</i> ; Xueqin Jiang, <i>Donghua University</i> ; Li Jun, Duan Wei, Tae Chol Shin, Moon Ho Lee, <i>Chonbuk National University</i>	
<b>B5P-U.2</b>	<b>Wide Tuning Range CMOS LC Quadrature Oscillators Based on Quadrature Mode Switching .....</b>	<b>1752</b>
	Mahdi Bagheri, <i>University of California, San Diego</i> ; Rahim Bagheri, <i>BroMarks</i> ; Lawrence E. Larson, <i>Brown University</i>	
<b>B5P-U.3</b>	<b>Remedies for Noise Degradation Due to Active Q-Enhancement Circuit .....</b>	<b>1756</b>
	Hossein Noori, Fa Foster Dai, <i>Auburn University</i>	
<b>B5P-U.4</b>	<b>Design of 13.56 MHz ASK Transmitter for near Field Communication Using a DLL Architecture .....</b>	<b>1760</b>
	Sangyong Park, Sungmoon Park, Joonhong Park, Donghyun Baek, <i>Chung-Ang University</i>	
<b>B5P-U.5</b>	<b>An Improved Analysis and Design Methodology for RF Class-E Power Amplifiers with Finite DC-Feed Inductance and Switch on-Resistance .....</b>	<b>1763</b>
	Anandaroop Chakrabarti, Harish Krishnaswamy, <i>Columbia University</i>	
<b>B5P-V</b>	<b>Circuits for Error Correcting Codes</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Vassilis Paliouras, <i>University of Patras</i> Zhengya Zhang, <i>University of Michigan</i>	
<b>B5P-V.1</b>	<b>Modified Shuffled Schedule for Nonbinary Low-Density Parity-Check Codes .....</b>	<b>1767</b>
	Jun Lin, Zhiyuan Yan, <i>Lehigh University</i>	
<b>B5P-V.2</b>	<b>A Novel Method of Constructing Quasi-Cyclic RS-LDPC Codes for 10GBASE-T Ethernet .....</b>	<b>1771</b>
	Seong-In Hwang, Hanho Lee, <i>Inha University</i> ; Shin-Il Lim, <i>Seokyeong University</i>	
<b>B5P-V.3</b>	<b>Extrinsic Data Compression Method for Double-Binary Turbo Codes .....</b>	<b>1775</b>
	Yi-Huan Ou-Yang, Chen-Yi Lee, <i>National Chiao Tung University</i> ; Chien-Yu Kao, Jen-Yuan Hsu, Pang-An Ting, <i>Industrial Technology Research Institute</i>	
<b>B5P-V.4</b>	<b>Design of TETRA 2 Turbo Decoder with Minimum Memory Hardware Interleaver .....</b>	<b>1779</b>
	Ji-Hoon Kim, <i>Chungnam National University</i>	
<b>B5P-V.5</b>	<b>Concatenated Non-Binary LDPC and HD-FEC Codes for 100Gb/s Optical Transport Systems .....</b>	<b>1783</b>
	Chang-Seok Choi, Hanho Lee, <i>Inha University</i> ; Noriaki Kaneda, Young-Kai Chen, <i>Alcatel-Lucent</i>	



<b>B5P-W</b>	<b>Other Topics in Circuits &amp; Systems for Communications</b>	
Time	Tuesday, May 22, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i>	
<b>B5P-W.1</b>	<b>Design of Security Enhanced TPM Chip Against Invasive Physical Attacks .....</b>	<b>1787</b>
	Piljoo Choi, Dong Kyue Kim, <i>Hanyang University</i>	
<b>B5P-W.2</b>	<b>Modified Polynomial Selection Architecture for Low-Complexity Chase Decoding of Reed-Solomon Codes .....</b>	<b>1791</b>
	Hao Wang, Wei Zhang, Boyang Pan, <i>Tianjin University</i>	
<b>B5P-W.3</b>	<b>Stream-Access-Oriented Baseband Signal Processors for SDR .....</b>	<b>1795</b>
	Toshiki Takeuchi, Hiroyuki Igura, Masao Ikekawa, <i>NEC Corporation</i>	
<b>B5P-W.4</b>	<b>Mapping Channel Estimation and MIMO Detection in LTE-Advanced on a Reconfigurable Cell Array .....</b>	<b>1799</b>
	Chenxin Zhang, Liang Liu, Viktor Ö wall, <i>Lund University</i>	
<b>B6P-N</b>	<b>Low Power Circuits II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Robert Chen-Hao Chang, <i>National Chung Hsing University</i> Dong S. Ha, <i>Virginia Polytechnic Institute &amp; State University</i>	
<b>B6P-N.1</b>	<b>A Fast-Lock-in Wide-Range Harmonic-Free All-Digital DLL with a Complementary Delay Line .....</b>	<b>1803</b>
	Shuai Chen, Hao Li, Kai Jia, Yue Wang, Xiaobing Shi, Feng Zhang, <i>Chinese Academy of Sciences</i>	
<b>B6P-N.2</b>	<b>Ultra-Low Power Transmitter .....</b>	<b>1807</b>
	Mohsen Ghasempour, Delong Shang, Fei Xia, Alex Yakovlev, <i>Newcastle University</i>	
<b>B6P-N.3</b>	<b>A Novel Peripheral Circuit for RRAM-Based LUT .....</b>	<b>1811</b>
	Yi-Chung Chen, Hai (Helen) Li, <i>Polytechnic Institute of NYU</i> ; Wei Zhang, <i>Nanyang Technological University</i>	
<b>B6P-N.4</b>	<b>Generic Virtual Filesystems for Reconfigurable Devices .....</b>	<b>1815</b>
	Benjamin Krill, <i>University of Ulster</i> ; Abbes Amira, <i>Qatar University</i> ; Hassan Rabah, <i>Nancy University</i>	
<b>B6P-N.5</b>	<b>A Comparative Study on Asynchronous Quasi-Delay-Insensitive Templates .....</b>	<b>1819</b>
	Kok-Leong Chang, <i>Institute of Materials Research and Engineering</i> ; Tong Lin, Weng-Geng Ho, Kwen-Siong Chong, Bah-Hwee Gwee, Joseph S. Chang, <i>Nanyang Technological University</i>	

<b>B6P-P</b>	<b>Memory Circuits II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Kwen-Siong Chong, <i>Nanyang Technological University</i> Masud Chowdhury, <i>University of Illinois at Chicago</i>	
<b>B6P-P.1</b>	<b>State Space Modeling for Sub-Threshold SRAM Stability Analysis .....</b>	<b>1823</b>
	Janna Mezhibovsky, Adam Teman, Alexander Fish, <i>Ben-Gurion University of the Negev</i>	
<b>B6P-P.2</b>	<b>A Low-Cost Low-Power Non-Volatile Memory for RFID Applications .....</b>	<b>1827</b>
	Hadar Dagan, Adam Teman, Alexander Fish, <i>Ben-Gurion University of the Negev</i> ; Evgeny Pikhay, Vladislav Dayan, Yakov Roizin, <i>TowerJazz</i>	
<b>B6P-P.3</b>	<b>High-Performance 0.6V VMIN 55nm 1.0Mb 6T SRAM with Adaptive BL Bleeder .....</b>	<b>1831</b>
	Hao-I Yang, Yi-Wei Lin, Mao-Chih Hsia, Geng-Cing Lin, Chi-Shin Chang, Yin-Nien Chen, Ching-Te Chuang, Wei Hwang, Shyh-Jye Jou, Nan-Chun Lien, <i>National Chiao Tung University</i> ; Hung-Yu Li, Kuen-Di Lee, Wei-Chiang Shih, Ya-Ping Wu, Wen-Ta Lee, Chih-Chiang Hsu, <i>Faraday Technology Corporation</i>	
<b>B6P-P.4</b>	<b>An Ultra-Dynamic Voltage Scalable (U-DVS) 10T SRAM with Bit-Interleaving Capability .....</b>	<b>1835</b>
	Junchao Chen, Kwen-Siong Chong, Bah-Hwee Gwee, Joseph S. Chang, <i>Nanyang Technological University</i>	
<b>B6P-P.5</b>	<b>Analysis of Propagation Delay in 3 - D Stacked DRAM .....</b>	<b>1839</b>
	Sukeshwar Kannan, Bruce Kim, <i>University of Alabama</i> ; Sang-Bock Cho, <i>University of Ulsan</i> ; Byoungchul Ahn, <i>Yeungnam University</i>	
<b>B6P-Q</b>	<b>Video Signal Processing</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Kai-Kuang Ma, <i>Nanyang Technological University</i>	
<b>B6P-Q.1</b>	<b>Online Surveillance Video Synopsis .....</b>	<b>1843</b>
	Chun-Rong Huang, <i>National Chung Hsing University</i> ; Hsing-Cheng Chen, Pau-Choo Chung, <i>National Cheng Kung University</i>	
<b>B6P-Q.2</b>	<b>Constrained Multiple Kernel Tracking for Human Limbs .....</b>	<b>1847</b>
	Shian-Ru Ke, Jenq-Neng Hwang, Maryam Fazel, <i>University of Washington</i> ; Shen-Zheng Wang, Hung-I Pai, <i>Industrial Technology Research Institute</i>	
<b>B6P-Q.3</b>	<b>Mixed Gaussian-Impulse Video Noise Removal via Temporal-Spatial Decomposition .....</b>	<b>1851</b>
	Zhangyang Wang, Houqiang Li, Qing Ling, Weiping Li, <i>University of Science and Technology of China</i>	
<b>B6P-Q.4</b>	<b>Gradient Based Interpolation for Division of Focal Plane Polarization Imaging Sensors .....</b>	<b>1855</b>
	Shengkui Gao, Viktor Gruev, <i>Washington University in St. Louis</i>	
<b>B6P-Q.5</b>	<b>Vehicle Color Classification Under Different Lighting Conditions Through Color Correction .....</b>	<b>1859</b>
	Jun-Wei Hsieh, Shih-Chun Lin, <i>National Taiwan Ocean University</i> ; Li-Chih Chen, Sin-Yu Chen, Duan Yu Chen, <i>Yuan Ze University</i>	

<b>B6P-R</b>	<b>Visual Signal Processing and Enhancement</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Lap-Pui Chau, <i>Nanyang Technological University</i>	
<b>B6P-R.1</b>	<b>3D Human Pose Tracking Based on Depth Camera and Dynamic Programming Optimization .....</b>	<b>1863</b>
	Wen-Nung Lie, Hung-Wei Shiu, <i>National Chung Cheng University</i> ; Chieh Huang, <i>Industrial Technology Research Institute</i>	
<b>B6P-R.2</b>	<b>Hierarchical Bayer-Pattern Based Background Subtraction for Low Resource Devices .....</b>	<b>1867</b>
	Muhammad Shoaib, Tobias Elbrandt, Evgeny Zaretskyi, Joern Ostermann, <i>Leibniz University Hannover</i>	
<b>B6P-R.3</b>	<b>Self-Learning-Based Rain Streak Removal for Image/Video .....</b>	<b>1871</b>
	Li-Wei Kang, <i>Academia Sinica</i> ; Chia-Wen Lin, <i>National Tsing Hua University</i> ; Che-Tsung Lin, Yu-Chen Lin, <i>Industrial Technology Research Institute</i>	
<b>B6P-R.4</b>	<b>A Perceptual Based Contrast Enhancement Metric Using AdaBoost .....</b>	<b>1875</b>
	Kristofor B. Gibson, Truong Q. Nguyen, <i>University of California San Diego</i>	
<b>B6P-R.5</b>	<b>Video Organization: Near-Duplicate Video Clustering .....</b>	<b>1879</b>
	Tzu-Yi Hung, Ce Zhu, Gao Yang, Yap-Peng Tan, <i>Nanyang Technological University</i>	
<b>B6P-S</b>	<b>Visual Signal Coding, Modeling and Representation I</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Ji-Zheng Xu, <i>Microsoft Research Asia</i> Zongming Guo, <i>Peking University</i>	
<b>B6P-S.1</b>	<b>Depth Estimation and View Synthesis for Narrow-Baseline Video .....</b>	<b>1883</b>
	Qian Zhang, Chun Hui Cui, King Ngai Ngan, <i>The Chinese University of Hong Kong</i> ; Yu Liu, <i>Institute Company Limited</i>	
<b>B6P-S.2</b>	<b>Optimized Bit Extraction of SVC Exploiting Linear Error Model .....</b>	<b>1887</b>
	Wenyao Zhang, Jun Sun, Jiaying Liu, Zongming Guo, <i>Peking University</i>	
<b>B6P-S.3</b>	<b>Stereo Matching with Pixel Classification and Reliable Disparity Propagation .....</b>	<b>1891</b>
	Weichen Wang, Satoshi Goto, <i>Waseda University</i>	
<b>B6P-T</b>	<b>Visual Signal Coding, Modeling and Representation II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Bing Zeng, <i>Hong Kong University of Science &amp; Technology</i>	
<b>B6P-T.1</b>	<b>Non-Delaunay Hierarchical Mesh-Based Motion Estimation and Compensation for Wavelet Video Coding .....</b>	<b>1895</b>
	Miok Kim, Nam Ling, <i>Santa Clara University</i> ; John D. Ralston, Steven E. Saunders, <i>Droplet Technology, Inc.</i>	
<b>B6P-T.2</b>	<b>Novel Rate-Distortion Modeling for H.264/AVC and its Application in Two-Pass VBR Coding .....</b>	<b>1899</b>
	Yizhou Duan, Jun Sun, Zongming Guo, <i>Peking University</i>	
<b>B6P-T.3</b>	<b>Analytical Mode-Dependent Rate and Distortion Models for H.264/SVC Coarse Grain Scalability .....</b>	<b>1903</b>
	Chung-Hao Wu, Yu-Chen Tseng, Wen-Hsiao Peng, <i>National Chiao Tung University</i>	

<b>B6P-U</b>	<b>Circuits and Systems for Visual Signal Processing</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Oscar Au, <i>Hong Kong University of Science &amp; Technology</i> Andy Wai Hoong Khong, <i>Nanyang Technological University</i>	
<b>B6P-U.1</b>	<b>Design and Optimization of Two Motion Detection Circuits for Video Monitoring System .....</b>	<b>1907</b>
	Ming Zhang, Nicolas Llaser, Hervé Mathias, Antoine Dupret, <i>University of Paris XI</i>	
<b>B6P-U.2</b>	<b>Real-Time, Color Image Barrel Distortion Removal .....</b>	<b>1911</b>
	Henryk Blasinski, Wei Hai, Frantz Lohier, <i>Logitech Inc.</i>	
<b>B6P-U.3</b>	<b>A Hardware Sharing Architecture of Deblocking Filter for VP8 and H.264/AVC Video Coding .....</b>	<b>1915</b>
	Yu-Lin Chou, Chung-Bin Wu, <i>National Chung Hsing University</i>	
<b>B6P-U.4</b>	<b>A High Throughput CAVLC Design for HEVC .....</b>	<b>1919</b>
	Hsuan-ku Chen, Tian-Sheuan Chang, <i>National Chiao-Tung University</i>	
<b>B6P-U.5</b>	<b>Universal Embedded Compression Engine for LCD TV System-on-a-Chip with Band-Expansion Progressive Wavelet Coding .....</b>	<b>1923</b>
	Keng-Hsien Huang, Shao-Yi Chien, <i>National Taiwan University</i>	
<b>B6P-V</b>	<b>UWB Systems II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Jaehyouk Choi, <i>Ulsan National Institute of Science &amp; Technology</i>	
<b>B6P-V.1</b>	<b>A 0.8V 4.3mW Sub-Harmonic Mixer for Ultra-Wideband Systems .....</b>	<b>1927</b>
	Ming-Jhe Zeng, Ro-Min Weng, <i>National Dong Hwa University</i>	
<b>B6P-V.2</b>	<b>A 5.9mW Full-Band Low-Noise-Amplifier for Ultra-Wideband Systems .....</b>	<b>1931</b>
	Ro-Min Weng , Mei-Lian Fan ,Ming-Jhe Zeng, <i>National Dong Hwa University</i>	
<b>B6P-V.3</b>	<b>Design of a PSWF Impulse Response Filter for UWB Systems .....</b>	<b>1935</b>
	Leonardo C. Neves, Genival M. de Araújo, José C. da Costa, Sandro A. P. Haddad, <i>Universidade de Brasília</i>	
<b>B6P-V.4</b>	<b>Improving the Coverage of Ultra Wideband Impulse Radio by Pulse Compression ..</b>	<b>1939</b>
	Géza Kolumbán, <i>Pázmány Péter Catholic University</i> ; Tamás Krébesz, <i>Budapest University</i> ; Chi K. Tse, Francis C. M. Lau, <i>The Hong Kong Polytechnic University</i>	
<b>B6P-V.5</b>	<b>A 1.5-7.5GHz Low Power Low Noise Amplifier (LNA) Design Using Subthreshold Technique for Wireless Sensor Network (WSN) Application .....</b>	<b>1943</b>
	A R Aravinth Kumar, Ashudeb Dutta, Shiv Govind Singh, <i>Indian Institute of Technology</i>	

<b>B6P-W</b>	<b>Wireline Communications II</b>	
Time	Tuesday, May 22, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Sangjin Byun, <i>Dongguk University</i> Jaejoon Chang, <i>Samsung Electro-Mechanics America Inc.</i>	
<b>B6P-W.1</b>	<b>A 10 Gb/s Adaptive Cable Equalizer Using Phase Detection Technique in 0.13<math>\mu</math>m CMOS Technology .....</b>	<b>1947</b>
	Kuang-Ren Chen, Chia-Ming Tsai, Sheng-Kai You, An-Siou Li, <i>National Chiao-Tung University</i> ; Wen-Tsao Chen, <i>Industrial Technology Research Institute</i>	
<b>B6P-W.2</b>	<b>HDMI Transmitter in 32nm Technology Using 28<math>\text{\AA}</math> MOS .....</b>	<b>1951</b>
	Nitin Gupta, Tapas Nandy, Somnath Kundu, <i>Greater Noida</i>	
<b>B6P-W.3</b>	<b>0.37mW/Gb/s Low Power SLVS Transmitter for Battery Powered Applications .....</b>	<b>1955</b>
	Youngkyun Jeong, Yoon-Chul Choi, Eun-Ji Choi, Kee-Won Kwon, Jung-Hoon Chun, <i>Sungkyunkwan University</i> ; Seogheon Ham, Young-Hyun Jun, <i>Samsung Electronics</i>	
<b>B6P-W.4</b>	<b>A 5.4Gb/s Adaptive Equalizer with Unit Pulse Charging Technique in 0.13<math>\mu</math>m CMOS .....</b>	<b>1959</b>
	Sewook Hwang, Inhwa Jung, Junyoung Song, Chulwoo Kim, <i>Korea University</i>	
<b>B6P-W.5</b>	<b>A 6Gb/s Adaptive Equalizer Using Overshoot Control in 0.18<math>\mu</math>m CMOS Technology .....</b>	<b>1963</b>
	Hsu-Che Nee, Chia-Ming Tsai, Sheng-Kai You, <i>National Chiao Tung University</i> ; Wen-Tsao Chen, <i>Industrial Technology Research Institute</i>	
<b>B7P-N</b>	<b>Amplifiers &amp; Analog Filters I</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Joao Goes, <i>Universidade Nova de Lisboa / UNINOVA-CTS, FCT</i>	
<b>B7P-N.1</b>	<b>An Ultra Low-Power Low-Voltage Class AB CMOS Fully Differential OpAmp .....</b>	<b>1967</b>
	M. R. Valero, S. Celma, N. Medrano, B. Calvo, C. Azcona, <i>University of Zaragoza</i>	
<b>B7P-N.2</b>	<b>High-Speed Simulator Including Accurate MTJ Models for Spintronics Integrated Circuit Design .....</b>	<b>1971</b>
	Noboru Sakimura, Ryusuke Nebashi, Yukihide Tsuji, Hiroaki Honjo, Tadahiko Sugibayashi, <i>NEC Corporation</i> ; Hiroki Koike, Takashi Ohsawa, Shunsuke Fukami, Takahiro Hanyu, Hideo Ohno, Tetsuo Endoh, <i>Tohoku University</i>	
<b>B7P-N.3</b>	<b>A Low-Quiescent Current Two-Input/Output Buffer Amplifier for LCDs .....</b>	<b>1975</b>
	Chih-Wen Lu, Kuo Hsuan-Lun, <i>National Tsing Hua University</i> ; Ping-Yeh Yin, <i>National Chi Nan University</i> ; Salvatore Pennisi, <i>Università di Catania</i>	
<b>B7P-N.4</b>	<b>An Analytical Study of a Magnetically Tuned Matching Network .....</b>	<b>1979</b>
	Jeremy L. Brown, Nathan M. Neihart, <i>Iowa State University</i>	
<b>B7P-N.5</b>	<b>Propagating Analog Signals Through a Fully Digital Network on an Electronic System Prototyping Platform .....</b>	<b>1983</b>
	Omar Al-Terkawi Hasib, Walder André, Yvon Savaria, <i>École Polytechnique Montréal</i> ; Yves Blaquière, <i>Université du Québec à Montréal</i>	

<b>B7P-P</b>	<b>Mixed Signal Circuits II</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Randall Geiger, <i>Iowa State University</i>	
<b>B7P-P.1</b>	<b>A Novel Rail-to-Rail Differential Voltage-to-Frequency Converter for Portable Sensing Systems .....</b>	<b>1987</b>
	C. Azcona, B. Calvo, S. Celma, N. Medrano, <i>University of Zaragoza</i>	
<b>B7P-P.2</b>	<b>A Digital Over-Temperature Protector for FlexRay Systems .....</b>	<b>1991</b>
	Chih-Lin Chen, Sheng-Chih Lin, Chua-Chin Wang, <i>National Sun Yat-Sen University</i> ; Chun-Ying Juan, <i>Metal Industries Research &amp; Development Centre</i>	
<b>B7P-P.3</b>	<b>A Low-Power Two-Line Inversion Method for Driving LCD Panels .....</b>	<b>1995</b>
	Sung-Pil Choi, Gyoo-Cheol Hwang, Young-Hyun Jun, <i>Samsung Electronics</i> ; Kee-Won Kwon, Jung-Hoon Chun, <i>Sungkyunkwan University</i>	
<b>B7P-P.4</b>	<b>A 0.001mm<sup>2</sup> 100μW on-Chip Temperature Sensor with ±1.95°C (3-Sigma) Inaccuracy in 32nm SOI CMOS .....</b>	<b>1999</b>
	Golam R. Chowdhury, <i>Advanced Micro Devices, Inc.</i> ; Arjang Hassibi, <i>The University of Texas at Austin</i>	
<b>B7P-P.5</b>	<b>Low Power Multi-Channel Capacitive Touch Sensing Unit Using Capacitor to Time Conversion Method .....</b>	<b>2003</b>
	HyungGu Park, HongJin Kim, JooHyung Lee, Kang-Yoon Lee, <i>Sungkyunkwan University</i> ; Jin-Gyun Chung, <i>Chonbuk National University</i>	
<b>B7P-Q</b>	<b>Mixed Signal Circuits and Testing</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Mohamad Sawan, <i>Ecole Polytechnique de Montreal</i>	
<b>B7P-Q.1</b>	<b>A 11 μW 0°C-160°C Temperature Sensor in 90 nm CMOS for Adaptive Thermal Monitoring of VLSI Circuits .....</b>	<b>2007</b>
	Amir Zjajo, Nick van der Meijs, Rene van Leuken, <i>Delft University of Technology</i>	
<b>B7P-Q.2</b>	<b>Structure Generation and Design of Tracking ADCs .....</b>	<b>2011</b>
	Mohamed O Shaker, Magdy A Bayoumi, <i>University of Louisiana at Lafayette</i>	
<b>B7P-Q.3</b>	<b>A 2 - 8 GHz Multi-Phase Distributed DLL Using Phase Insertion in 90 nm .....</b>	<b>2015</b>
	Min-Han Hsieh, Bing-Feng Lin, Yu-Shun Wang, Hao-Huei Chang, Charlie Chung-Ping Chen, <i>National Taiwan University</i>	
<b>B7P-Q.4</b>	<b>An Audio Clock Regenerator with a Wide Dividing Ratio for HDMI .....</b>	<b>2019</b>
	Seung-Wuk Oh, Jin-Ku Kang, <i>Inha University</i> ; Sang-Ho Kim, <i>Silicon Works</i>	
<b>B7P-Q.5</b>	<b>A Low Cost Method for Testing Offset and Gain Error for ADC BIST .....</b>	<b>2023</b>
	Jingbo Duan, Degang Chen, Randall Geiger, <i>Iowa State University</i>	

<b>B7P-R</b>	<b>Oscillators and Phase-locked Loops</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Weixing Zheng, <i>University of Western Sydney</i> Yongxiang Xia, <i>Zhejiang University</i>	
<b>B7P-R.1</b>	<b>A DLL-Based Injection-Locked Frequency Synthesizer for WiMedia UWB .....</b>	<b>2027</b>
	Amin Ojani, Behzad Mesgarzadeh, Atila Alvandpour, <i>Linköping University</i>	
<b>B7P-R.2</b>	<b>Analysis of Steady-State Common-Mode Response in Differential LC-VCOs .....</b>	<b>2031</b>
	R. Doldán, A. J. Ginés, E. Peralías, A. Rueda, <i>University of Seville</i>	
<b>B7P-R.3</b>	<b>A 20 mV Colpitts Oscillator Powered by a Thermoelectric Generator .....</b>	<b>2035</b>
	Fernando Rangel de Sousa, Marcio Bender Machado, Carlos Galup-Montoro, <i>Federal University of Santa Catarina</i>	
<b>B7P-R.4</b>	<b>A 1.2V 2-Bit Phase Interpolator for 65nm CMOS .....</b>	<b>2039</b>
	Andrew Nicholson, Tara Julia Hamilton, Torsten Lehmann, <i>University of New South Wales</i> ; Julian Jenkins, <i>Perceptia Devices Inc.</i> ; André van Schaik, <i>University of Western Sydney</i>	
<b>B7P-S</b>	<b>Biomedical &amp; Live Science Systems II</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Alex Fish, <i>Ben-Gurion University</i> Basu Sanakar, <i>National Science Foundation, USA</i>	
<b>B7P-S.1</b>	<b>Cl<sup>-</sup> and H<sup>+</sup> Sensing Devices for Water Quality Monitoring System .....</b>	<b>2043</b>
	Jung Chuan Chou, Meng Wei Su, Chien Cheng Chen, <i>National Yunlin University of Science and Technology</i> ; Shu Ying Yang, <i>Fortune Institute of Technology</i>	
<b>B7P-S.2</b>	<b>FPGA-Based Machine Vision Implementation for Lab-on-Chip Flow Detection .....</b>	<b>2047</b>
	Calliope-Louisa Sotiropoulou, Liberis Voudouris, Christos Gentsos, Spyridon Nikolaidis, <i>Aristotle University of Thessaloniki</i> ; Nikolaos Vassiliadis, Athanasios Demiris, <i>Micro2gen Ltd.</i>	
<b>B7P-S.3</b>	<b>A Conductance-Based Neuronal Network in VLSI for Studying the CPR Circuit of the Crayfish .....</b>	<b>2051</b>
	Chien-Hsuan Chen, Hsiang-Chiu Wu, Hsin Chen, <i>National Tsing Hua University</i>	
<b>B7P-S.4</b>	<b>Electrical Nerve Stimulation System for Improvement of Flight Orientation in a VR-Based Motion Environment .....</b>	<b>2055</b>
	Uj kwT w[ cpi .Uj kCp'Ej gp.Uj wHepi "Vuck'Ej kp/Vgpi "Nkp	
<b>B7P-S.5</b>	<b>Measurement of Cell and Bacterial Activity Using Array-Based ISFET Chemical Current-Conveyor in Weak-Inversion .....</b>	<b>2059</b>
	P. Pookaiyaudom, A. Worapishet, <i>Mahanakorn University of Technology</i> ; F.J. Lidgey, K. Hayatleh, <i>Oxford Brookes University</i> ; C. Toumazou, <i>Imperial College</i>	

<b>B7P-T</b>	<b>Biomedical and Genomic Signal Processing &amp; Bioimaging Technology IV</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Amine Bermak, <i>Hong Kong University of Science &amp; Technology</i> Alex Fish, <i>Ben-Gurion University</i>	
<b>B7P-T.1</b>	<b>Quantitative Comparison of Commercial CCD and Custom-Designed CMOS Camera for Biological Applications .....</b>	<b>2063</b>
	Gözen Köklü, Julien Ghaye, René Beuchat, Giovanni De Micheli, Yusuf Leblebici, Sandro Carrara, <i>Ecole Polytechnique Fédérale de Lausanne</i>	
<b>B7P-T.2</b>	<b>Exploration of Reusing the Pre-Recorded Training Data Set to Improve the Supervised Classifier for EEG-Based Motor-Imagery Brain Computer Interfaces ....</b>	<b>2067</b>
	Yun-Yu Chen, Tung-Chien Chen, Chien-Chung Chen, Hsin-I Liao, Luk-Ting Sio, Liang-Gee Chen, <i>National Taiwan University</i>	
<b>B7P-T.3</b>	<b>Development of Adaptive QRS Detection Rules Based on Center Differentiation Method for Clinical Application .....</b>	<b>2071</b>
	Shiau-RuYang, Sheng-Chih Hsu, Shao-Wei Lu, Li-Wei Ko, Chin-Teng Lin, <i>National Chiao Tung University</i>	
<b>B7P-T.4</b>	<b>Medical Image Classification Using Birth-and-Death MCMC .....</b>	<b>2075</b>
	Tarek Elguebaly, Nizar Bouguila, <i>Concordia University</i>	
<b>B7P-T.5</b>	<b>Microscopic Image Classification via CWT-Based Covariance Descriptors Using Kullback-Leibler Distance .....</b>	<b>2079</b>
	Furkan Keskin, A. Enis Çetin, Tulin Ersahin, Rengul Çetin-Atalay, <i>Bilkent University</i>	
<b>B7P-U</b>	<b>Neural Systems</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Shantanu Chakrabarty, <i>Michigan State University</i> Shih-Chii Liu, <i>INI, ETH Zurich</i>	
<b>B7P-U.1</b>	<b>A Study of Exponential Stability of Multiple Equilibria in Delayed Recurrent Neural Networks .....</b>	<b>2083</b>
	Zhigang Zeng, <i>Huazhong University of Science and Technology</i> ; Wei Xing Zheng, <i>University of Western Sydney</i>	
<b>B7P-U.2</b>	<b>An Enhanced Neuro-Space Mapping Method for Nonlinear Microwave Device Modeling .....</b>	<b>2087</b>
	Lin Zhu, Yongtao Ma, Qijun Zhang, Kaihua Liu, <i>Tianjin University</i>	
<b>B7P-U.3</b>	<b>Configurable Conduction Delay Circuits for High Spiking Rates .....</b>	<b>2091</b>
	B. Belhadj, A. Joubert, R. Heliot, <i>CEA-LETI</i> ; O. Temam, <i>INRIA Saclay Ile-de-France</i>	
<b>B7P-U.4</b>	<b>Varactor-Driven Temperature Compensation of CMOS Floating-Gate Current Memory .....</b>	<b>2095</b>
	Ming Gu, Shantanu Chakrabarty, <i>Michigan State University</i>	
<b>B7P-U.5</b>	<b>Investigation of Multi-Layer Perceptron with Propagation of Glial Pulse to Two Directions .....</b>	<b>2099</b>
	Chihiro Ikuta, Yoko Uwate, Yoshifumi Nishio, <i>Tokushima University</i>	



<b>B7P-V</b>	<b>Nonlinear Dynamic and Bifurcation Analysis</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Francis Lau, <i>The Hong Kong Polytechnic University</i> Hiroo Sekiya, <i>Chiba University</i>	
<b>B7P-V.1</b>	<b>Analysis of a MEMS-Based Ring Oscillator</b> .....	<b>2103</b>
	J. L. Muñoz-Gamara, N. Barniol, <i>Universidad Autonoma de Barcelona</i> ; J. Juillard, <i>SUPELEC</i>	
<b>B7P-V.2</b>	<b>State Estimation of Complex Dynamical Network Under Noisy Transmission Channel</b> .....	<b>2107</b>
	Chun-Xia Fan, Guo-Ping Jiang, <i>Nanjing University of Telecommunications and Posts</i>	
<b>B7P-V.3</b>	<b>A Numerical Approach to Calculate Grazing Bifurcation Points in an Impact Oscillator with Periodic Boundaries</b> .....	<b>2111</b>
	Akiko Takahashi, Takuji Kousaka, <i>Oita University</i> ; Hiroo Sekiya, <i>Chiba University</i> ; Kazuyuki Aihara, <i>University of Tokyo</i>	
<b>B7P-V.4</b>	<b>Synchronization Analysis of Networks of Identical and Nearly Identical Chua's Oscillators</b> .....	<b>2115</b>
	Igor Mishkovski, Miroslav Mirchev, Fernando Corinto, Mario Biey, <i>Politecnico di Torino</i>	
<b>B7P-W</b>	<b>Power Systems and Electronic Circuits</b>	
Time	Tuesday, May 22, 2012 (14:30 - 16:00)	
Place	Poster Area	
Chair(s)	Eduard Alarcon, <i>Technical University of Catalunya</i> Chika Nwankpa, <i>Drexel University</i>	
<b>B7P-W.1</b>	<b>Towards a Nearly Optimal Synthesis of Power Bridge Commands in the Driving of AC Motors</b> .....	<b>2119</b>
	Federico Bizzarri, Giambattista Gruosso, <i>Polytechnic of Milan</i> ; Sergio Callegari, <i>University of Bologna</i>	
<b>B7P-W.2</b>	<b>Study on Modulation Strategy for Neutral-Point-Clamped Three-Level Indirect Matrix Converter</b> .....	<b>B#5</b>
	Haipeng Jiang, Yongqiang Liu, <i>South China University of Technology</i>	
<b>B8P-N</b>	<b>Wireless Circuits and Systems IV</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Viktor Gruev, <i>Washington University in St. Louis</i>	
<b>B8P-N.1</b>	<b>Compact and Low-Loss ESD Protection Design for V-band RF Applications in a 65-nm CMOS Technology</b> .....	<b>2127</b>
	Li-Wei Chu, Chun-Yu Lin, Shiang-Yu Tsai, Ming-Dou Ker, <i>National Chiao-Tung University</i> ; Ming-Hsiang Song, Chewn-Pu Jou, Tse-Hua Lu, Jen-Chou Tseng, Ming-Hsien Tsai, Tsun-Lai Hsu, Ping-Fang Hung, Tzu-Heng Chang, <i>Taiwan Semiconductor Manufacturing Company</i>	
<b>B8P-N.2</b>	<b>Recent Advances in ESD Protection Design for Ultra Wideband High Data Rate ICs</b> .....	<b>B#5</b>
	Xin Wang, Bin Zhao, <i>Fairchild Semiconductor</i> ; Zitao Shi, Jian Liu, Qiang Fang, Hui Zhao, Li Wang, Chen Zhang, Albert Wang, <i>University of California</i> ; Gary Zhang, <i>Skyworks Solutions</i> ; Yuhua Cheng, <i>Peking University</i> ; Li-Wu Yang, <i>TransRF</i>	

<b>B8P-P</b>	<b>Wireless Circuits and Systems III</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Viktor Gruev, <i>Washington University in St. Louis</i>	
<b>B8P-P.1</b>	<b>A 127mW SAW-Less LTE Transmitter with LC-Load Bootstrapped Quadrature Voltage Modulator in 130nm RFCMOS .....</b>	<b>2135</b>
	Zhang Weifeng, Huang Jiwei, Wang Riyan, Fang Min, Li Zhengping, <i>Guangzhou Runxin Information Technology Co., Ltd.</i>	
<b>B8P-P.2</b>	<b>Cost-Efficient CMOS RF Tunable Bandpass Filter with Active Inductor-Less Biquads .....</b>	<b>2139</b>
	Yixiao Wang, Le Ye, Huailin Liao, Ru Huang, <i>Peking University</i>	
<b>B8P-P.3</b>	<b>Balun LNA with Continuously Controlable Gain and with Noise and Distortion Cancellation .....</b>	<b>2143</b>
	I. Bastos, L. B. Oliveira, J. P. Oliveira, J. Goes, <i>Universidade Nova de Lisboa</i> ; M. M. Silva, <i>University of Lisbon</i>	
<b>B8P-P.4</b>	<b>2.4GHz Super-Regeneration Amplifier with Degenerative Quenching Technique for RF-Pulse Width Transceiver .....</b>	<b>2147</b>
	A. Zahabi, M. Anis, M. Ortmanns, <i>University of Ulm</i>	
<b>B8P-P.5</b>	<b>Anti-Interference Pseudo-Differential Wideband LNA for DVB-S.2 RF Tuners .....</b>	<b>2151</b>
	Hui Wang, Wufeng Wang, Jing Jin, Dongpo Chen, Jianjun Zhou, <i>Shanghai Jiao Tong University</i>	
<b>B8P-Q</b>	<b>Interface Circuits</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Shahriar Mirabbasi, <i>University of British Columbia</i>	
<b>B8P-Q.1</b>	<b>Fast Parasitic-Aware Synthesis Methodology for High-Performance Analog Circuits .....</b>	<b>2155</b>
	Abdullah Al Iftekhar Ahmed, Lihong Zhang, <i>Memorial University of Newfoundland</i>	
<b>B8P-Q.2</b>	<b>A Low-Power Dual-PFD Phase-Rotating PLL with a PFD Controller for 5Gb/s Serial Links .....</b>	<b>2159</b>
	Jun-Han Bae, Kyoung-Ho Kim, Seok Kim, Kee-Won Kwon, Jung-Hoon Chun, <i>Sungkyunkwan University</i>	
<b>B8P-Q.3</b>	<b>Autotuning Technique for CMOS Current Mode Capacitive Sensor Interfaces .....</b>	<b>2163</b>
	Salvatore Pennisi, <i>Università di Catania</i> ; Giuseppe Scotti, Alessandro Trifiletti, <i>Università di Roma "Sapienza" Roma</i>	
<b>B8P-Q.4</b>	<b>A Current-to-Voltage Integrator Using Area-Efficient Correlated Double Sampling Technique .....</b>	<b>2167</b>
	Xuqiang Zheng, Fule Li, Xuan Wang, Chun Zhang, <i>Tsinghua University</i>	
<b>B8P-Q.5</b>	<b>High Speed Stress Tolerant 1.6 V - 3.6 V Low to High Voltage CMOS Level Shift Architecture in 40 nm .....</b>	<b>2171</b>
	Sushrant Monga, <i>STMicroelectronics</i>	

<b>B8P-R</b>	<b>Amplifiers &amp; Analog Filters II</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Shahriar Mirabbasi, <i>University of British Columbia</i>	
<b>B8P-R.1</b>	<b>A Low-Voltage and Stable Phase Compensation Technique to Realize an 99 dB, 650 MHz and 1.8 V Three-Stage Amplifier .....</b>	<b>2175</b>
	Naoto Ogawa, Kohei Ohtani, Yasuhiro Sugimoto, <i>Chuo University</i>	
<b>B8P-R.2</b>	<b>Performances of RF PA Classes in LINC Systems .....</b>	<b>2179</b>
	Ronald Montesinos, Corinne Berland, Mazen Abi Hussein, Olivier Venard, <i>ESIEE Paris</i> ; Philippe Descamps, <i>LaMIPS</i>	
<b>B8P-R.3</b>	<b>Passive Complex Bandpass Filter Using Lossy and Loose Coupling Transformers .....</b>	<b>2183</b>
	Kazuhiro Shouno, You Amano, <i>University of Tsukuba</i>	
<b>B8P-R.4</b>	<b>Highly Efficient Compact Size 0.7W Broad Bandwidth Power Amplifier .....</b>	<b>2187</b>
	T. T. Thein, C. L. Law, K. Fu, A. Aung, <i>Nanyang Technological University</i>	
<b>B8P-S</b>	<b>Wireless, Wearable, and Implantable/Injectable Technology II</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Yong Lian, <i>National University of Singapore</i> Pantelis Georgiou, <i>Imperial College London</i>	
<b>B8P-S.1</b>	<b>A Novel Overlapping Coil Structure for Dual Band Telemetry System .....</b>	<b>2191</b>
	Peijun Wang, Yina Tang, Guoxing Wang, <i>Shanghai Jiao Tong University</i> ; Hui Wang, <i>Chinese Academy of Sciences</i>	
<b>B8P-S.2</b>	<b>Signal Processing for Velocity Selective Recording Systems Using Analogue Delay Lines .....</b>	<b>2195</b>
	Robert Rieger, <i>National Sun Yat-Sen University</i> ; John Taylor, Chris Clarke, <i>University of Bath</i>	
<b>B8P-S.3</b>	<b>An Ultra-Low-Power 902-928MHz RF Receiver Front-End in CMOS 90nm Process ...</b>	<b>2199</b>
	Xiaojun Tu, Jeremy H. Holleman, <i>University of Tennessee</i>	
<b>B8P-S.4</b>	<b>Implantable Narrow Band Image Compressor for Capsule Endoscopy .....</b>	<b>2203</b>
	Tareq Hasan Khan, Khan Wahid, <i>University of Saskatchewan</i>	
<b>B8P-S.5</b>	<b>Intelligent Cage for Remotely Powered Freely Moving Animal Telemetry Systems ...</b>	<b>2207</b>
	Enver G. Kilinc, Bastien Canovas, Catherine Dehollain, <i>Ecole Polytechnique Fédérale de Lausanne</i> ; Franco Maloberti, <i>Università degli Studi di Pavia</i>	

<b>B8P-T</b>	<b>Circuits for Biomedical Systems IV</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Angel Rodríguez-Vázquez, <i>Instituto de Microelectrónica de Sevilla</i>	
<b>B8P-T.1</b>	<b>An Ultralow-Power CMOS Transconductor Design with Wide Input Linear Range for Biomedical Applications .....</b>	<b>2211</b>
	Yen-Ting Liu, Donald Y.C. Lie, Weibo Hu, Tam Nguyen, <i>Texas Tech University</i>	
<b>B8P-T.2</b>	<b>Noise Canceling Chopper Stabilized Front-End for Electrochemical Biosensors with Improved Dynamic Range .....</b>	<b>2215</b>
	Viswanathan Balasubramanian, Pierre-Francois Ruedi, Christian Enz, <i>Swiss Center for Electronics and Microtechnology</i>	
<b>B8P-T.3</b>	<b>A Low Power Neural Recording Amplifier with Programmable Gain and Bandwidth .....</b>	<b>2219</b>
	Balavelan Thanigaivelan, Janet Wiles, <i>The University of Queensland</i> ; Tara Julia Hamilton, <i>The University of New South Wales</i>	
<b>B8P-T.4</b>	<b>A 0.8V 6.4µW Compact Mixed-Signal Front-End for Neural Implants .....</b>	<b>2223</b>
	Ahmed El-Kholy, Maged Ghoneima, Khaled Sharaf, <i>Ain-Shams University</i>	
<b>B8P-T.5</b>	<b>A Comparative Overview of Two Transimpedance Amplifiers for Biosensing Applications .....</b>	<b>2227</b>
	A. Trabelsi, M. Boukadoum, <i>Université du Québec à Montréal</i>	
<b>B8P-U</b>	<b>Circuits for Biomedical Systems V</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Philipp Häfliger, <i>University of Oslo</i> Tim Constandinou, <i>Imperial College London</i>	
<b>B8P-U.1</b>	<b>A Front-End Circuit with Active Spike and LFP Separation via a Switched Capacitor Filter Structure for Neural Recording Applications .....</b>	<b>2231</b>
	Ulrich Bihl, Maurits Ortmanns, <i>University of Ulm</i>	
<b>B8P-U.2</b>	<b>A Fully-Programmable Neural Interface for Multi-Polar, Multi-Channel Stimulation Strategies .....</b>	<b>2235</b>
	Anthony Guilvard, Amir Eftekhar, Song Luan, Christofer Toumazou, Timothy G. Constandinou, <i>Imperial College London</i>	
<b>B8P-U.3</b>	<b>A Novel Charge-Metering Method for Voltage Mode Neural Stimulation .....</b>	<b>2239</b>
	Song Luan, Timothy G. Constandinou, <i>Imperial College London</i>	
<b>B8P-U.4</b>	<b>Towards a Fully-Integrated Solution for Capacitor-Based Neural Stimulation .....</b>	<b>2243</b>
	Khalid B. Mirza, Song Luan, Amir Eftekhar, Timothy G. Constandinou, <i>Imperial College London</i>	
<b>B8P-U.5</b>	<b>Low-Power High-Voltage Charge Pumps for Implantable Microstimulators .....</b>	<b>2247</b>
	Goutam Chandra Kar, Mohamad Sawan, <i>Polytechnique Montréal</i>	

<b>B8P-V</b>	<b>Power Electronic Converters and Applications</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Tadashi Suetsugu, <i>Fukuoka University</i> Gabriel Rincón-Mora, <i>Georgia Institute of Technology</i>	
<b>B8P-V.1</b>	<b>A Low-Voltage Low-Noise DC-DC Flyback Converter with Delta-Sigma Modulation .....</b>	<b>2251</b>
	Bo-Han Hwang, Jay-Ann Yo, Jiann-Jong Chen, Yuh-Shyan Hwang, Cheng-Chieh Yu, <i>National Taipei University of Technology</i>	
<b>B8P-V.2</b>	<b>A Low-Voltage Positive Buck-Boost Converter Using Average-Current-Controlled Techniques .....</b>	<b>2255</b>
	Bo-Han Hwang, Bin-Nan Sheen, Jiann-Jong Chen, Yuh-Shyan Hwang, Cheng-Chieh Yu, <i>National Taipei University of Technology</i>	
<b>B8P-V.3</b>	<b>A New Class of Integrated CMOS Rectifiers with Improved PVT-Compensated Efficiency .....</b>	<b>2259</b>
	Hongcheng Xu, Maurits Ortmanns, <i>University of Ulm</i>	
<b>B8P-V.4</b>	<b>A Fully Integrated DC-DC Converter for Dynamic Voltage Scaling Applications .....</b>	<b>2263</b>
	Chu-Hsiang Chia, Pui-Sun Lei, Robert Chen-Hao Chang, Yu-Bin Hong, <i>National Chung Hsing University</i>	
<b>B8P-V.5</b>	<b>Output Spectrum Analysis of Buck Converters in DCM with PFM Control .....</b>	<b>2267</b>
	Chengwu Tao, Ayman Fayed, <i>Iowa State University</i>	
<b>B8P-W</b>	<b>Circuit Applications for Smart Grids and Renewables</b>	
Time	Tuesday, May 22, 2012 (16:20 - 17:50)	
Place	Poster Area	
Chair(s)	Eduard Alarcon, <i>Technical University of Catalunya</i> Chika Nwankpa, <i>Drexel University</i>	
<b>B8P-W.1</b>	<b>ADDA: Almost Direct Drive Architecture for Solar High Power Electrical Propulsion in New Generation Spacecrafts .....</b>	<b>2271</b>
	Federico Bizzarri, Angelo Brambilla, Giambattista Grusso, Giancarlo Storti Gajani, <i>Politecnico di Milano</i> ; Emanuele Ferrando, <i>Selex Galileo</i>	
<b>B8P-W.2</b>	<b>Maximizing Power Harvest in a Distributed Photovoltaic System .....</b>	<b>2275</b>
	Yong Sin Kim, Roland Winston, <i>University of California at Merced</i> ; Sung Mo Kang, <i>University of California at Santa Cruz</i>	
<b>B8P-W.3</b>	<b>A New Type of Microinverter for Photovoltaic Power Generation Based on Heterodyne Power Processing .....</b>	<b>2279</b>
	Shaul Ozeri, <i>UniqueFlow Power Processing</i>	
<b>B8P-W.4</b>	<b>Low Voltage-Drop Bypass Switch for Photovoltaic Applications .....</b>	<b>2283</b>
	Francesco Pulvirenti, Amedeo La Scala, <i>STMicroelectronics</i> ; Salvatore Pennisi, <i>University of Catania</i>	

<b>C1L-A</b>	<b>Next Generation DNA Sequence Processing LSI and System</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 300	
Chair(s)	Riichiro Takemura, <i>Hitachi</i>	
09:40		
<b>C1L-A.1</b>	<b>BioCMOS LSIs for Portable Gene-Based Diagnostic Inspection System .....</b>	<b>2287</b>
	Kazuo Nakazato, <i>Nagoya University</i>	
09:58		
<b>C1L-A.2</b>	<b>High-Throughput Biology in the Time Domain: Improving Temporal Resolution of Single-Molecule Sensors .....</b>	<b>2291</b>
	Jacob Rosenstein, Kenneth L. Shepard, <i>Columbia University</i>	
10:16		
<b>C1L-A.3</b>	<b>DNA Sequencing via Electron Tunneling .....</b>	<b>2295</b>
	Michael Zwolak, <i>Oregon State University</i> ; Massimiliano Di Ventra, <i>University of California, San Diego</i>	
10:34		
<b>C1L-A.4</b>	<b>Fluctuation Tolerant Read Scheme for Ultrafast DNA Sequencing with Nanopore Device .....</b>	<b>2299</b>
	Yoshimitsu Yanagawa, Kazuo Ono, Akira Kotab, Riichiro Takemura, Tatsuo Nakagawa, Tomio Iwasaki, Takayuki Kawahara, <i>Hitachi, Ltd.</i>	
10:52		
<b>C1L-A.5</b>	<b>Low-Cost and Ultra-Sensitive Poly-Si Nanowire Bio-Sensor for Hepatitis B Virus (HBV) DNA Detection .....</b>	<b>2303</b>
	Che-Wei Huang, Hsiao-Ting Hsueh, Yu-Jie Huang, Jen-Kuang Lee, Shey-Shi Lu, Chih-Ting Lin, <i>National Taiwan University</i> ; Min-Cheng Chen, <i>National Nano Device Laboratories</i>	
<b>C1L-B</b>	<b>Circuit Testing &amp; Modeling</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room E1	
Chair(s)	Shu-Min Li, <i>National Sun Yat Sen University</i> Izzet Kale, <i>University of Westminster</i>	
09:40		
<b>C1L-B.1</b>	<b>A Sat-Based Diagnosis Pattern Generation Method for Timing Faults in Scan Chains .....</b>	<b>2308</b>
	Da Wang, Lunkai Zhang, Weizhi Xu, Dongrui Fan, <i>Chinese Academy of Sciences</i>	
09:58		
<b>C1L-B.2</b>	<b>Accumulator-Based Output Selection for Test Response Compaction .....</b>	<b>2313</b>
	Wei-Cheng Lien, Kuen-Jong Lee, Shih-Shiun Chien, <i>National Cheng Kung University</i> ; Tong-Yu Hsieh, <i>National Sun Yat-sen University</i> ; Krishnendu Chakrabarty, <i>Duke University</i>	
10:16		
<b>C1L-B.3</b>	<b>Automatic Generation of Hardware Design Properties from Simulation Traces .....</b>	<b>2317</b>
	Eman El Mandouh, <i>Mentor Graphics Corporation</i> ; Amr G. Wassal, <i>Cairo University</i>	
10:34		
<b>C1L-B.4</b>	<b>Low-Power Delay Test Architecture for Pre-Bond Test .....</b>	<b>2321</b>
	Syng-Jyan Wang, Han-Hsuan Hsu, <i>National Chung Hsing University</i> ; Katherine Shu-Min Li, <i>National Sun Yat-Sen University</i>	
10:52		
<b>C1L-B.5</b>	<b>A Closed Form Expression for TSV-Based on-Chip Spiral Inductor .....</b>	<b>2325</b>
	Khaled Salah, Alaa El Roubay, <i>Mentor Graphics</i> ; Hani Ragai, <i>Ain-Shams University</i> ; Yehea Ismail, <i>AUC University</i>	

<b>C1L-C</b>	<b>Multirate Signal Processing and Transforms</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room E2	
Chair(s)	Tapio Saramäki, <i>Tampere University of Technology</i> Andreas Spanias, <i>Arizona State University</i>	
09:40		
<b>C1L-C.1</b>	<b>Tree-Structured Linear-Phase Nyquist FIR Filter Interpolators and Decimators .....</b>	<b>2329</b>
	Håkan Johansson, Amir Eghbali, Jimmie Lahti, <i>Linköping University</i>	
09:58		
<b>C1L-C.2</b>	<b>On Shift Variance Bounds in Multi-Channel Filter Banks .....</b>	<b>2333</b>
	Li Chai, <i>Wuhan University of Science and Technology</i> ; Qing-Long Han, <i>Central Queensland University</i> ; Jingxin Zhang, <i>Monash University</i>	
10:16		
<b>C1L-C.3</b>	<b>Design of Q-Shift Filters with Flat Group Delay .....</b>	<b>2337</b>
	Xi Zhang, Hiroaki Morihara, <i>University of Electro-Communications</i>	
10:34		
<b>C1L-C.4</b>	<b>Fast Finite Field Orthogonal Transform Without Length Constraint .....</b>	<b>2341</b>
	Soo-Chang Pei, Chia-Chang Wen, <i>National Taiwan University</i>	
10:52		
<b>C1L-C.5</b>	<b>On the Aliasing Effect of the Finer Directional Wavelet Transform .....</b>	<b>2345</b>
	Selvaraaju Murugesan, David B. H. Tay, <i>La Trobe University</i>	
<b>C1L-D</b>	<b>Sucessive Approximation ADCs</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room E3	
Chair(s)	Jorge Fernandes, <i>IST Portugal</i>	
09:40		
<b>C1L-D.1</b>	<b>An 8-Bit Single-Ended Ultra-Low-Power SAR ADC with a Novel DAC Switching Method .....</b>	<b>2349</b>
	Weibo Hu, Donald Y.C. Lie, Yen-Ting Liu, <i>Texas Tech University</i>	
09:58		
<b>C1L-D.2</b>	<b>A 9.2b 47fJ/Conversion-Step Asynchronous SAR ADC with Input Range Prediction DAC Switching .....</b>	<b>2353</b>
	Hsin-Yuan Huang, Jin-Yi Lin, Chih-Cheng Hsieh, <i>National Tsing Hua University</i> ; Wen-Hsu Chang, Hann-Huei Tsai, Chin-Fong Chiu, <i>National Applied Research Laboratories</i>	
10:16		
<b>C1L-D.3</b>	<b>A 120dB SNDR Audio Sigma-Delta Modulator with an Asynchronous SAR Quantizer .....</b>	<b>2357</b>
	Yafei Ye, Zhihua Wang, Liyuan Liu, <i>Tsinghua University</i> ; Jiangyuan Li, <i>Beihang University</i>	
10:34		
<b>C1L-D.4</b>	<b>Enhanced SAR ADC Energy Efficiency from the Early Reset Merged Capacitor Switching Algorithm .....</b>	<b>2361</b>
	Jon Guerber, Hariprasath Venkatram, Taehwan Oh, Un-Ku Moon, <i>Oregon State University</i>	
10:52		
<b>C1L-D.5</b>	<b>SAR ADC Using Single-Capacitor Pulse Width to Analog Converter Based DAC .....</b>	<b>2365</b>
	Guanglei Zhang, Kye-Shin Lee, <i>The University of Akron</i>	

<b>C1L-E</b>	<b>Wireless System and IC</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room E4	
Chair(s)	Jaehyouk Choi, <i>Ulsan National Institute of Science &amp; Technology</i> Jaejoon Kim, <i>Ulsan National Institute of Science &amp; Technology</i>	
09:40		
<b>C1L-E.1</b>	<b>A Multiple Access for Unlicensed Spectrum .....</b>	<b>2369</b>
	Rueywen Liu, <i>University of Notre Dame</i> ; Rendong Ying, <i>Shanghai Jiao-Tong University</i> ; Xu Wang, Fan He, Bo Hu, <i>Fudan University</i>	
09:58		
<b>C1L-E.2</b>	<b>A mm-Wave Analog Adaptive Array with Genetic Algorithm for Interference Mitigation .....</b>	<b>2373</b>
	Chuang Lu, Yan Wu, Reza Mahmoudi, Marion K. Matters-Kammerer, Peter G.M. Baltus, <i>Eindhoven University of Technology</i>	
10:16		
<b>C1L-E.3</b>	<b>Efficient Channel Shortening for Higher Order Modulation: Algorithm and Architecture .....</b>	<b>2377</b>
	Christian Benkeser, Stefan Zwicky, Harald Kröll, Johannes Widmer, Qiuting Huang, <i>ETH Zurich</i>	
10:34		
<b>C1L-E.4</b>	<b>A PVT-Robust Current-Mode Passive Mixer with Source-Degenerated Transconductance Amplifier .....</b>	<b>2381</b>
	Shaorui Li, <i>Brookhaven National Laboratory</i> ; Deping Huang, Jinghong Chen, <i>Southern Methodist University</i>	
10:52		
<b>C1L-E.5</b>	<b>A Fully Digital Polar Modulator for Switch Mode RF Power Amplifier .....</b>	<b>2385</b>
	Philip Ostrovskyy, Christoph Scheytt, <i>IHP GmbH</i> ; SungJun Lee, BongHyuk Park, JaeHo Jung, <i>Electronics and Telecommunications Research Institute</i>	
<b>C1L-F</b>	<b>Integrated Biomedical Systems, BioMEMS, Bio-Sensors/Actuators &amp; Lab-on-Chip I</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room E7	
Chair(s)	Sandro Carrara, <i>EPFL</i> Joseph Chang, <i>Nanyang Technological University</i>	
09:40		
<b>C1L-F.1</b>	<b>A Fast FPW-Based Protein Concentration Measurement System .....</b>	<b>2389</b>
	Chua-Chin Wang, Chia-Hao Hsu, Yue-Da Tsai, Yun-Chi Chen, Ming-Chih Lee, I-Yu Huang, <i>National Sun Yat-Sen University</i>	
09:58		
<b>C1L-F.2</b>	<b>Single-Filter Multi-Color CMOS Fluorescent Contact Sensing Microsystem .....</b>	<b>2393</b>
	Derek Ho, M. Omair Noor, Ulrich J. Krull, Glenn Gulak, Roman Genov, <i>University of Toronto</i>	
10:16		
<b>C1L-F.3</b>	<b>Improvised NanoSPR Biosensor System Utilizing Gold Nanorods and Nanohole Array Film .....</b>	<b>2397</b>
	Santosh Koppa, Youngjoong Joo, <i>The University of Texas at San Antonio</i>	
10:34		
<b>C1L-F.4</b>	<b>Die-Level Photolithography and Etchless Parylene Packaging Processes for on-CMOS Electrochemical Biosensors .....</b>	<b>2401</b>
	Lin Li, Xiaowen Liu, Andrew J. Mason, <i>Michigan State University</i>	
10:52		
<b>C1L-F.5</b>	<b>A Dual-Mode, Low-Power and Low-Noise 0.18µm CMOS Front-End for Optical Biosensors .....</b>	<b>2405</b>
	A. Trabelsi, M. Boukadoum, M. Siaj, <i>Université du Québec à Montréal</i>	



<b>C1L-G</b>	<b>Spiking Neural Systems</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 307A	
Chair(s)	John Tapson, <i>University of Western Sydney</i>	
09:40		
<b>C1L-G.1</b>	<b>An Asynchronous Parallel Neuromorphic ADC Architecture .....</b>	<b>2409</b>
	Jonathan Tapson, André van Schaik, <i>University of Western Sydney</i>	
09:58		
<b>C1L-G.2</b>	<b>An aVLSI Programmable Axonal Delay Circuit with Spike Timing Dependent Delay Adaptation .....</b>	<b>2413</b>
	Runchun Wang, Jonathan Tapson, Tara Julia Hamilton, André van Schaik, <i>The University of Western Sydney</i>	
10:16		
<b>C1L-G.3</b>	<b>Heterogeneous Neurons and Plastic Synapses in a Reconfigurable Cortical Neural Network IC .....</b>	<b>2417</b>
	Jayawan H B Wijekoon, Piotr Dudek, <i>University of Manchester</i>	
10:34		
<b>C1L-G.4</b>	<b>A Neuromorphic VLSI Grid Cell System .....</b>	<b>2421</b>
	Tarek M. Massoud, Timothy K. Horiuchi, <i>University of Maryland</i>	
10:52		
<b>C1L-G.5</b>	<b>Real-Time Inference in a VLSI Spiking Neural Network .....</b>	<b>2425</b>
	Dane Corneil, Daniel Sonnleithner, Emre Neftci, Matthew Cook, <i>University of Zurich and ETH Zurich;</i> Elisabetta Chicca, <i>Bielefeld University</i>	
<b>C1L-H</b>	<b>Network-on-chip and Memrister</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 307B	
Chair(s)	Ching-Te Chiu, <i>National Tsing Hua University</i> Yin-Tsung Hwang, <i>National Chung Hsing University</i>	
09:40		
<b>C1L-H.1</b>	<b>BER-Based Power Budget Evaluation for Optical Interconnect Topologies in NoCs .....</b>	<b>2429</b>
	Ipshita Datta, Debasish Datta, <i>Indian Institute of Technology, Kharagpur;</i> Partha P. Pande, <i>Washington State University</i>	
09:58		
<b>C1L-H.2</b>	<b>Exploiting Path Diversity for Low-Latency and High-Bandwidth with the Dual-Path NoC Router .....</b>	<b>2433</b>
	Yoon Seok Yang, Hrishikesh Deshpande, Gwan Choi, Paul Gratz, <i>Texas A&amp;M University</i>	
10:16		
<b>C1L-H.3</b>	<b>Decentralized Agent Based Re-Clustering for Task Mapping of Tera-Scale Network-on-Chip System .....</b>	<b>2437</b>
	Yingnan Cui, Wei Zhang, Hao Yu, <i>Nanyang Technological University</i>	
10:34		
<b>C1L-H.4</b>	<b>Implication Logic Synthesis Methods for Memristors .....</b>	<b>2441</b>
	Eero Lehtonen, Mika Laiho, <i>University of Turku;</i> Jussi Poikonen, <i>Aalto University</i>	
10:52		
<b>C1L-H.5</b>	<b>A Memristor-Based Random Modulator for Compressive Sensing Systems .....</b>	<b>2445</b>
	Yehia Massoud, Fan Xiong, Sami Smaili, <i>University of Alabama at Birmingham</i>	

<b>C1L-J</b>	<b>Circuits and Systems Education</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 307C	
Chair(s)	Joos Vandewalle, <i>Katholieke Universiteit Leuven</i> Tokunbo Ogunfunmi, <i>Santa Clara University</i>	
09:40		
<b>C1L-J.1</b>	<b>Introducing Negative Feedback with an Integrator as the Central Element .....</b>	<b>2449</b>
	Nagendra Krishnapura, <i>Indian Institute of Technology, Madras</i>	
09:58		
<b>C1L-J.2</b>	<b>Behavioral Modeling Techniques for Teaching Communication Circuits and Systems .....</b>	<b>2453</b>
	José M. de la Rosa, <i>IMSE-CNM (CSIC/Universidad de Sevilla)</i>	
10:16		
<b>C1L-J.3</b>	<b>Interactive Multimedia System for Conducting Laboratory Exercises in Circuits Education .....</b>	<b>B#5</b>
	Sergey Kovalenko, Anton Maksimov, <i>South-Ural Professional Institute</i> ; Mikhail Morozkov, <i>Saint Petersburg State University</i>	
10:34		
<b>C1L-J.4</b>	<b>Synthesis Based Introduction to Opamps and Phase Locked Loops .....</b>	<b>2461</b>
	Nagendra Krishnapura, <i>Indian Institute of Technology</i>	
10:52		
<b>C1L-J.5</b>	<b>On the Teaching of the Axiomatics of Physical Systems .....</b>	<b>2465</b>
	Vedat Tavsanoglu, <i>Yildiz Technical University</i>	
<b>C1L-K</b>	<b>Memory Circuits I</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 308A	
Chair(s)	Volkan Kursun, <i>Hong Kong University of Science &amp; Technology</i> Mircea R. Stan, <i>University of Virginia</i>	
09:40		
<b>C1L-K.1</b>	<b>Two-Port Low-Power Gain-Cell Storage Array: Voltage Scaling and Retention Time .....</b>	<b>2469</b>
	Rashid Iqbal, Pascal Meinerzhagen, Andreas Burg, <i>EPFL</i>	
09:58		
<b>C1L-K.2</b>	<b>SRAM in Hold-Operation: Modeling the Interaction of Soft-Errors and Switching Power-Supply Noise .....</b>	<b>2473</b>
	Amrut Kolhapure, Animesh Kumar, <i>Indian Institute of Technology Bombay</i>	
10:16		
<b>C1L-K.3</b>	<b>Performance Analysis of Multi-Bank DRAM with Increased Clock Frequency .....</b>	<b>2477</b>
	Su-Jin Cho, Jaewoo Ahn, Hyojin Choi, Wonyong Sung, <i>Seoul National University</i>	
10:34		
<b>C1L-K.4</b>	<b>Hybrid Cache Architecture Replacing SRAM Cache with Future Memory Technology .....</b>	<b>2481</b>
	Suji Lee, Jongpil Jung, Chong-Min Kyung, <i>Korea Advanced Institute of Science and Technology</i>	
10:52		
<b>C1L-K.5</b>	<b>An All-Digital Bit Transistor Characterization Scheme for CMOS 6T SRAM Array ....</b>	<b>2485</b>
	Geng-Cing Lin, Shao-Cheng Wang, Yi-Wei Lin, Ming-Chien Tsai, Ching-Te Chuang, Shyh-Jye Jou, <i>National Chiao Tung University</i> ; Nan-Chun Lien, Wei-Chiang Shih, Kuen-Di Lee, Jyun-Kai Chu, <i>Faraday Technology Corporation</i>	

<b>C1L-L</b>	<b>Mixed Signal Circuits I</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 308B	
Chair(s)	Salvatore Pennisi, <i>Università di Catania</i>	
09:40		
<b>C1L-L.1</b>	<b>Low Phase-Noise Temperature Compensated Self-Biased Ring Oscillator .....</b>	<b>2489</b>
	Somayeh Abdollahvand, João Goes, Luis B. Oliveira, Luis Gomes, Nuno Paulino, <i>Universidade Nova de Lisboa</i>	
09:58		
<b>C1L-L.2</b>	<b>A Low-Power Dynamic Comparator with Time-Domain Bulk-Driven Offset Cancellation .....</b>	<b>2493</b>
	Junjie Lu, Jeremy Holleman, <i>The University of Tennessee</i>	
10:16		
<b>C1L-L.3</b>	<b>Multi-Channel Mixed-Signal Noise Source with Applications to Stochastic Equalization .....</b>	<b>2497</b>
	Jinzhou Cao, Raviv Raich, Gabor C. Temes, <i>Oregon State University</i> ; Gert Cauwenberghs, <i>University of California, San Diego</i>	
10:34		
<b>C1L-L.4</b>	<b>A Probabilistic Test Instrument Using a Sigma Delta-Encoded Amplitude/Phase- Signal Generation Technique .....</b>	<b>2501</b>
	Azhar A. Chowdhury, Gordon W. Roberts, <i>McGill University</i>	
10:52		
<b>C1L-L.5</b>	<b>Lumped Model Identification Based on a Double Multi-Valued Neural Network and Frequency Response Analysis .....</b>	<b>2505</b>
	A. Luchetta, S. Manetti, <i>University of Florence</i>	
<b>C1L-M</b>	<b>Nano-devices Based New Computing Paradigms</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Room 308C	
Chair(s)	Weisheng Zhao, <i>Université Paris-Sud II</i> Amara Amara, <i>ISEP</i>	
09:40		
<b>C1L-M.1</b>	<b>Nanodevice-Based Novel Computing Paradigms and the Neuromorphic Approach .....</b>	<b>2509</b>
	Weisheng Zhao, Damien Querlioz, Jacques-Olivier Klein, Djaafar Chabi, Claude Chappert, <i>Université Paris-Sud II</i>	
09:58		
<b>C1L-M.2</b>	<b>Designing Memristors: Physics, Materials Science and Engineering .....</b>	<b>2513</b>
	Gilberto Medeiros Ribeiro, J. Joshua Yang, Janice Nickel, Antonio Torrezan, John Paul Strachan, R. Stanley, <i>Hewlett-Packard Labs</i>	
10:16		
<b>C1L-M.3</b>	<b>A 32nm Tunnel FET SRAM for Ultra Low Leakage .....</b>	<b>2517</b>
	Adam Makosiej, Rutwick Kumar Kashyap, Andrei Vladimirescu, Amara Amara, Costin Anghel, <i>Institut Supérieur d'Electronique de Paris</i>	
10:34		
<b>C1L-M.4</b>	<b>SPICE-Compatible Compact Model for Graphene Field-Effect Transistors .....</b>	<b>2521</b>
	Michael B. Henry, Shamik Das, <i>The MITRE Corporation</i>	
10:52		
<b>C1L-M.5</b>	<b>Self-Assembled Multiferroic Magnetic QCA Structures for Low Power Systems .....</b>	<b>2525</b>
	Mircea R. Stan, Mehdi Kabir, Jiwei Lu, Stuart Wolf, <i>University of Virginia</i>	

<b>C2L-A</b>	<b>UWB Systems I</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room 300	
Chair(s)	Sangwoong Yoon, <i>Kyunghee University</i> Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i>	
11:30		
<b>C2L-A.1</b>	<b>A Pulse-Shaped Power Amplifier with Dynamic Bias Switching for IR-UWB Transmitters</b> .....	<b>2529</b>
	Shuli Geng, Woogeun Rhee, Zhihua Wang, <i>Tsinghua University</i>	
11:48		
<b>C2L-A.2</b>	<b>An Ultra Low Power, Low Voltage CMOS Squarer Circuit for Non-Coherent IR-UWB Receivers</b> .....	<b>2533</b>
	Mahdi Parvizi, Karim Allidina, Mourad N. El-Gamal, <i>McGill University</i>	
12:06		
<b>C2L-A.3</b>	<b>Sliding Window Integrator Approximations for Multichannel Autocorrelation UWB Receivers</b> .....	<b>2537</b>
	Andreas Pedross, Klaus Witrisal, <i>Graz University of Technology</i>	
12:24		
<b>C2L-A.4</b>	<b>A Programmable OOK Impulse Radio Ultra Wideband Transmitter with Power Cycling and Spectral Agility</b> .....	<b>2541</b>
	Raslen Hamdi, Alexandre Desmarais, Aniss Belarbi, Dominic Deslandes, Frederic Nabki, <i>Université du Québec à Montréal</i>	
12:42		
<b>C2L-A.5</b>	<b>A Current-Steering DAC-Based CMOS Ultra-Wideband Transmitter with Bi-Phase Modulation</b> .....	<b>2545</b>
	Ju-Ching Li, Sungyong Jung, <i>University of Texas at Arlington</i> ; Youngjoong Joo, <i>University of Texas at San Antonio</i> ; Ping Gui, <i>Southern Methodist University</i>	
<b>C2L-B</b>	<b>Low Power Circuits I</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room E1	
Chair(s)	Gaetano Palumbo, <i>Università degli Studi di Catania</i> Kwen-Siong Chong, <i>Nanyang Technological University</i>	
11:30		
<b>C2L-B.1</b>	<b>Low Leakage Power NoC Switch Using AVC</b> .....	<b>2549</b>
	Rabab Ezz-Eldin, <i>Bani-suef University</i> ; Magdy A. El-Moursy, <i>Mentor Graphics Corporation</i> ; Amr M. Refaat, <i>Fayoum University</i>	
11:48		
<b>C2L-B.2</b>	<b>Minimum Convertible Voltage Analysis for Ratioless and Robust Subthreshold Level Conversion</b> .....	<b>2553</b>
	Shien-Chun Luo, Chi-Ray Huang, Lih-Yih Chiou, <i>National Cheng Kung University</i>	
12:06		
<b>C2L-B.3</b>	<b>A Low-Power Low-Noise Bioamplifier for Multielectrode Neural Recording Systems</b> .....	<b>2557</b>
	Md Shahed Enamul Quadir, Mohammad Rafiqul Haider, Yehia Massoud, <i>The University of Alabama at Birmingham</i>	
12:24		
<b>C2L-B.4</b>	<b>Is the Road Towards "Zero-Energy" Paved with NEMFET-Based Power Management?</b> .....	<b>2561</b>
	Marius Enachescu, George R. Voicu, Sorin D. Cotofana, <i>Delft University of Technology</i>	
12:42		
<b>C2L-B.5</b>	<b>A 41.264W, 3.33GHz Processor Datapath Using Current Mode Logics in 130nm CMOS Technology</b> .....	<b>B#5</b>
	Abdullah Al Owahid, Foster F. Dai, <i>Auburn University</i>	

<b>C2L-C</b>	<b>Detection and Estimation</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room E2	
Chair(s)	Behrooz Nowrouzian, <i>University of Alberta</i> Xinping Huang, <i>Communication Research Center, Ottawa</i>	
11:30		
<b>C2L-C.1</b>	<b>A New Method for Robust Beamforming Using Iterative Second-Order Cone Programming</b> .....	<b>2569</b>
	B. Liao, K. M. Tsui, S. C. Chan, <i>The University of Hong Kong</i>	
11:48		
<b>C2L-C.2</b>	<b>Lean Angle Estimation in Two-Wheeled Vehicles with a Reduced Sensor Configuration</b> .....	<b>2573</b>
	Ivo Boniolo, Sergio M. Savaresi, Mara Tanelli, <i>Politecnico di Milano</i>	
12:06		
<b>C2L-C.3</b>	<b>The Detection Bound of the Probability of Error in Compressed Sensing Using Bayesian Approach</b> .....	<b>2577</b>
	Jiuwen Cao, Zhiping Lin, <i>Nanyang Technological University</i>	
12:24		
<b>C2L-C.4</b>	<b>Road-Constraint Assisted Target Tracking in Mixed LOS/NLOS Environments Based on TDOA Measurements</b> .....	<b>2581</b>
	Lili Yi, Zhiping Lin, Sirajudeen Gulam Razul, <i>Nanyang Technological University</i> ; Chong-Meng See, <i>DSO National Laboratories</i>	
12:42		
<b>C2L-C.5</b>	<b>Accurate DOA Estimation via Sparse Sensor Array</b> .....	<b>2585</b>
	Jian-Feng Gu, Wei-Ping Zhu, M.N.S. Swamy, <i>Concordia University</i>	
<b>C2L-D</b>	<b>Oscillator Circuits</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room E3	
Chair(s)	Shahriar Mirabbasi, <i>University of British Columbia</i>	
11:30		
<b>C2L-D.1</b>	<b>An Ultra Low Power Frequency Synthesizer Based on Multiphase Fractional Frequency Divider</b> .....	<b>2589</b>
	Ye Zhang, Ralf Wunderlich, Stefan Heinen, <i>RWTH Aachen University</i>	
11:48		
<b>C2L-D.2</b>	<b>A 90nm CMOS Digital PLL Based on Vernier-Gated-Ring-Oscillator Time-to-Digital Converter</b> .....	<b>2593</b>
	Ping Lu, Ying Wu, Pietro Andreani, <i>Lund University</i>	
12:06		
<b>C2L-D.3</b>	<b>A 6-Gb/s 3X-Oversampling-Like Clock and Data Recovery in 0.13-<math>\mu</math>m CMOS Technology</b> .....	<b>2597</b>
	Bo-Qian Jiang, Cheng-Liang Hung, Bing-Hung Chen, Kuo-Hsing Cheng, <i>National Center University</i>	
12:24		
<b>C2L-D.4</b>	<b>Sinusoidal Signal Generation for Production Testing and BIST Applications</b> .....	<b>2601</b>
	Bharath K Vasani, Siva K Sudani, Degang J Chen, Randall L Geiger, <i>Iowa State University</i>	
12:42		
<b>C2L-D.5</b>	<b>Contactless Testing of on-Chip Oscillator Operation</b> .....	<b>2605</b>
	Igor M. Filanovsky, <i>University of Alberta</i> ; Brian Moore, <i>Scanimetrics, Inc.</i>	

<b>C2L-E</b>	<b>Decoders for Low-Density Parity-Check Codes</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room E4	
Chair(s)	Vassilis Paliouras, <i>University of Patras</i> Zhiyuan Yan, <i>Lehigh University</i>	
11:30		
<b>C2L-E.1</b>	<b>A Pure Software LDPC Decoder on a Multi-Core Processor Platform with Reduced Inter-Processor Communication Cost .....</b>	<b>2609</b>
	Yan Ying, Kaidi You, Liyang Zhou, Heng Quan, Minge Jing, Zhiyi Yu, Xiaoyang Zeng, <i>Fudan University</i>	
11:48		
<b>C2L-E.2</b>	<b>Memory Efficient Column-Layered Decoder Design for Non-Binary LDPC Codes ...</b>	<b>2613</b>
	Kai He, Jin Sha, <i>Nanjing University</i> ; Zhongfeng Wang, <i>Broadcom Corporation</i>	
12:06		
<b>C2L-E.3</b>	<b>Efficient Network for Non-Binary QC-LDPC Decoder .....</b>	<b>2617</b>
	Chuan Zhang, <i>University of Minnesota</i> ; Jin Sha, <i>Nanjing University</i>	
12:24		
<b>C2L-E.4</b>	<b>Stochastic Decoding for LDPC Convolutional Codes .....</b>	<b>2621</b>
	Xin-Ru Lee, Chih-Lung Chen, Hsie-Chia Chang, Chen-Yi Lee, <i>National Chiao Tung University</i>	
12:42		
<b>C2L-E.5</b>	<b>High-Throughput Architecture and Implementation of Regular (2, d<sub>c</sub>) Nonbinary LDPC Decoders .....</b>	<b>2625</b>
	Yaoyu Tao, Youn Sung Park, Zhengya Zhang, <i>University of Michigan</i>	
<b>C2L-F</b>	<b>Wireless, Wearable, and Implantable/Injectable Technology I</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room E7	
Chair(s)	Mohamad Sawan, <i>École Polytechnique de Montréal</i> Pantelis Georgiou, <i>Imperial College London</i>	
11:30		
<b>C2L-F.1</b>	<b>A 100-Channel Hermetically Sealed Implantable Device for Wireless Neurosensing Applications .....</b>	<b>2629</b>
	Ming Yin, David A. Borton, Juan Aceros, William R. Patterson, Arto V. Nurmikko, <i>Brown University</i>	
11:48		
<b>C2L-F.2</b>	<b>The Design and Implementation of A Chipset for the Endoscopic Micro-Ball .....</b>	<b>2633</b>
	Yingke Gu, Guolin Li, Xiang Xie, Tianjia Sun, Shouhao Liu, Xiaomeng Li, Songping Mai, Zhihua Wang, <i>Tsinghua University</i>	
12:06		
<b>C2L-F.3</b>	<b>A Wireless Force Measurement System for Total Knee Arthroplasty .....</b>	<b>2637</b>
	Hanqing Luo, Ming Liu, Hong Chen, Chun Zhang, Zhihua Wang, <i>Tsinghua University</i>	
12:24		
<b>C2L-F.4</b>	<b>A 39 <math>\mu</math>W Body Channel Communication Wake-Up Receiver with Injection-Locking Ring-Oscillator for Wireless Body Area Network .....</b>	<b>2641</b>
	Hyunwoo Cho, Joonsung Bae, Hoi-Jun Yoo, <i>Korea Advanced Institute of Science and Technology</i>	
12:42		
<b>C2L-F.5</b>	<b>Frequency Analysis of Wireless Accelerometer and EMG Sensors Data: Towards Discrimination of Normal and Asymmetric Walking Pattern .....</b>	<b>2645</b>
	Inira Spulber, Pantelis Georgiou, Amir Eftekhari, Chris Toumazou, Lynsey Duffell, Jeroen Bergmann, Alison McGregor, <i>Imperial College London</i> ; Tinaz Mehta, Miguel Hernandez, Alison Burdett, <i>Toumaz UK Limited</i>	

<b>C2L-G</b>	<b>Cellular Processor Arrays</b>
Time	Wednesday, May 23, 2012 (11:30 - 13:00)
Place	Room 307A
Chair(s)	Piotr Dudek, <i>University of Manchester</i> Chai Wah Wu, <i>IBM T.J. Watson Research Center</i>
11:30	
<b>C2L-G.1</b>	<b>In-Pixel Generation of Gaussian Pyramid Images by Block Reusing in 3D-CMOS ...2649</b>
	M. Suárez, V.M. Brea, D. Cabello, <i>University of Santiago de Compostela</i> ; R. Carmona-Galán, <i>Universidad de Sevilla</i>
11:48	
<b>C2L-G.2</b>	<b>Trigger-Wave Collision Detecting Asynchronous Cellular Logic Array for Fast Image Skeletonization .....2653</b>
	Przemyslaw Mrosczyk, Piotr Dudek, <i>The University of Manchester</i>
12:06	
<b>C2L-G.3</b>	<b>Scale- and Rotation- Invariant Feature Detectors on Cellular Processor Arrays .....2657</b>
	N. A. Fernández, V.M. Brea, M. Suárez, D. Cabello, <i>University of Santiago de Compostela</i>
12:24	
<b>C2L-G.4</b>	<b>Missing Image Interpolation Using Sigma-Delta Modulation Type of DT-CNN .....2661</b>
	Sathit Prasomphan, <i>King Mongkut University of Technology</i> ; Hisashi Aomori, Mamoru Tanaka, <i>Sophia University</i>
12:42	
<b>C2L-G.5</b>	<b>Memristive Analog Arithmetic Within Cellular Arrays .....2665</b>
	Mika Laiho, Eero Lehtonen, <i>University of Turku</i> ; Wei Lu, <i>University of Michigan</i>
<b>C2L-H</b>	<b>Visual Signal Processing and Modeling</b>
Time	Wednesday, May 23, 2012 (11:30 - 13:00)
Place	Room 307B
Chair(s)	Jianfei Cai, <i>Nanyang Technological University</i> Shao-Yi Chien, <i>National Taiwan University</i>
11:30	
<b>C2L-H.1</b>	<b>Sparsity Estimation in Image Compressive Sensing .....2669</b>
	Shanzhen Lan, Qi Zhang, <i>Communication University of China</i> ; Xinggong Zhang, Zongming Guo, <i>Peking University</i>
11:48	
<b>C2L-H.2</b>	<b>Saliency Detection from Joint Embedding of Spatial and Color Cues .....2673</b>
	Linfeng Xu, Hongliang Li, Zhengning Wang, <i>University of Electronic Science and Technology of China</i>
12:06	
<b>C2L-H.3</b>	<b>Study of Subjective and Objective Quality Assessment of Retargeted Images .....2677</b>
	Lin Ma, King N. Ngan, <i>The Chinese University of Hong Kong</i> ; Weisi Lin, Chenwei Deng, <i>Nanyang Technological University</i>
12:24	
<b>C2L-H.4</b>	<b>Surveillance Face Hallucination via Variable Selection and Manifold Learning .....2681</b>
	Junjun Jiang, Ruimin Hu, Zhen Han, Tao Lu, Kebin Huang, <i>Wuhan University</i>
12:42	
<b>C2L-H.5</b>	<b>Facial Expression Mapping Based on Elastic and Muscle-Distribution-Based Models .....2685</b>
	Yihao Zhang, Weiyao Lin, Chongyang Zhang, Bin Sheng, <i>Shanghai Jiao Tong University</i> ; Jianxin Wu, <i>Nanyang Technological University</i> ; Hongxiang Li, <i>University of Louisville</i>

<b>C2L-J</b>	<b>Advances in Circuits &amp; Systems Educational Delivery</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room 307C	
Chair(s)	Babak Ayazifar, <i>UC Berkeley</i> Arjuna Madanayake, <i>University of Akron</i>	
11:30		
<b>C2L-J.1</b>	<b>A Mixed-Signal EEG Interface Circuit for Use in First Year Electronics Courses .....</b>	<b>2689</b>
	Vincent Lee, Winthrop Williams, Michel Maharbiz, Vivek Subramanian, Ferenc Kovac, <i>University of California</i> ;	
	Jennifer Monski, Bharathwaj Muthuswamy, Tom Swiontek, <i>Milwaukee School of Engineering</i>	
11:48		
<b>C2L-J.2</b>	<b>A Combined Approach to Research and Graduate-Level Teaching of Multidimensional Signal Processing, Circuits and Systems .....</b>	<b>2693</b>
	Arjuna Madanayake, <i>The University of Akron</i> ;	
	Len T. Bruton, <i>University of Calgary</i>	
12:06		
<b>C2L-J.3</b>	<b>Open-Ended Design and Performance Evaluation of a Biometric Speaker Identification System .....</b>	<b>2697</b>
	Ravi P. Ramachandran, Robi Polikar, Kevin D. Dahm, <i>Rowan University</i> ;	
	Sachin S. Shetty, <i>Tennessee State University</i>	
12:24		
<b>C2L-J.4</b>	<b>Teaching Freshmen VHDL-Based Digital Design .....</b>	<b>2701</b>
	Arjuna Madanayake, Chamith Wijenayake, Rimesh M. Joshi, Jim Grover, Joan Carletta, Jay Adams and Tom Hartley, <i>University of Akron</i> ;	
	Tokunbo Ogunfunmi, <i>Santa Clara University</i>	
<b>C2L-K</b>	<b>Reconfigurable &amp; Array-Based Architectures</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room 308A	
Chair(s)	Lan-Da Van, <i>National Chiao Tung University</i> Mladen Berekovic, <i>Technische Universität Braunschweig</i>	
11:30		
<b>C2L-K.1</b>	<b>Variation-Resilient Current-Mode Logic Circuit Design Using MTJ Devices .....</b>	<b>2705</b>
	Youngkeun Kim, Masanori Natsui, Takahiro Hanyu, <i>Tohoku University</i>	
11:48		
<b>C2L-K.2</b>	<b>A Reference Low-Complexity Structured ASIC .....</b>	<b>2709</b>
	Ludovic Noury, <i>Université Paris-Est, ESYCOM, ESIEE Paris</i> ;	
	Sophie Dupuis, Nicolas Fel, <i>CEA, DAM, DIF</i>	
12:06		
<b>C2L-K.3</b>	<b>Evaluating Performance of Manycore Processors with Various Granularities Considering Yield and Lifetime Reliability .....</b>	<b>2713</b>
	Yueming Yang, Zewen Shi, Jianming Yu, Liulin Zhong, Xiaoyang Zeng, Zhiyi Yu, <i>Fudan University</i>	
12:24		
<b>C2L-K.4</b>	<b>Fine-Grained Splitting Methods to Address Permanent Errors in Network-on-Chip Links .....</b>	<b>2717</b>
	Meilin Zhang, Paul Ampadu, <i>University of Rochester</i> ;	
	Qiaoyan Yu, <i>University of New Hampshire</i>	
12:42		
<b>C2L-K.5</b>	<b>A TCMS-Based Architecture for GALS NoCs .....</b>	<b>2721</b>
	Thorsten Jungeblut, Johannes Ax, Ulrich Rückert, <i>Bielefeld University</i> ;	
	Mario Porrman, <i>University of Paderborn</i>	



<b>C2L-L</b>	<b>Data Converters and Regulators</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room 308B	
Chair(s)	Pak Kwong Chan, <i>Nanyang Technological University</i>	
11:30		
<b>C2L-L.1</b>	<b>Track and Hold for Giga-Sample ADC Applications Using CMOS Technology .....</b>	<b>2725</b>
	Marco Macedo, Gordon W. Roberts, Ishiang Shih, <i>McGill University</i>	
11:48		
<b>C2L-L.2</b>	<b>Output-Dependent Delay Cancellation Technique for High-Accuracy Current-Steering DACs .....</b>	<b>2729</b>
	Long Cheng, Yu-Jing Lin, Fan Ye, Ning Li, Jun-Yan Ren, <i>Fudan University</i>	
12:06		
<b>C2L-L.3</b>	<b>Full Quiescent Current Enhancement Technique for Improving Transient Response on the Output-Capacitorless Low-Dropout Regulator .....</b>	<b>2733</b>
	Chun-Hsun Wu, Le-Ren Chang-Chien, <i>National Cheng-Kung University</i>	
12:24		
<b>C2L-L.4</b>	<b>A Dynamic Latched Comparator for Low Supply Voltages down to 0.45 V in 65-nm CMOS .....</b>	<b>2737</b>
	Yu Lin, Hans Hegt, Arthur van Roermund, <i>Eindhoven University of Technology</i> ; Kostas Doris, <i>NXP Semiconductors</i>	
12:42		
<b>C2L-L.5</b>	<b>Towards Neural Network-Based Design of Radiofrequency Low-Noise Amplifiers ..</b>	<b>2741</b>
	Mounir Boukadoum, Frederic Nabki, Wessam Ajib, <i>Université du Québec à Montréal</i>	
<b>C2L-M</b>	<b>Recent Advances in Sparse Adaptive Filters</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Room 308C	
Chair(s)	Mrityunjy Chakraborty, <i>Indian Institute of Technology, Kharagpur</i>	
11:30		
<b>C2L-M.1</b>	<b>Sparse Adaptive Filters - an Overview and Some New Results .....</b>	<b>2745</b>
	Rajib Lochan Das, Mrityunjy Chakraborty, <i>Indian Institute of Technology, Kharagpur</i>	
11:48		
<b>C2L-M.2</b>	<b>Sparsity-Aware Adaptive Filters Based on <math>l_p</math>-Norm Inspired Soft-Thresholding Technique .....</b>	<b>2749</b>
	Masahiro Yukawa, Yuta Tawara, <i>Niigata University</i> ; Masao Yamagishi, Isao Yamada, <i>Tokyo Institute of Technology</i>	
12:06		
<b>C2L-M.3</b>	<b>A Variable Step-Size Multichannel Equalization Algorithm Exploiting Sparseness Measure for Room Acoustics .....</b>	<b>2753</b>
	Rajan S. Rashobh, Andy W. H. Khong, <i>Nanyang Technological University</i>	
12:24		
<b>C2L-M.4</b>	<b>Proportionate Affine Projection Algorithms from a Basis Pursuit Perspective .....</b>	<b>2757</b>
	Constantin Paleologu, <i>University Politehnica of Bucharest</i> ; Jacob Benesty, <i>University of Quebec</i>	
12:42		
<b>C2L-M.5</b>	<b>Analysis of the Convergence Behavior of the Complex Gaussian Kernel LMS Algorithm .....</b>	<b>2761</b>
	Thomas Paul, Tokunbo Ogunfunmi, <i>Santa Clara University</i>	

<b>C3L-A</b>	<b>Image Analysis &amp; Processing I</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 300	
Chair(s)	Chien-Cheng Tseng, <i>National Kaohsiung First University of Science &amp; Technology</i> Kai-Kuang Ma, <i>Nanyang Technological University</i>	
14:30		
<b>C3L-A.1</b>	<b>Digital Image Sharpening Using Fractional Derivative and Mach Band Effect .....</b>	<b>2765</b>
	Chien-Cheng Tseng, <i>National Kaohsiung First University of Sci. and Tech.</i> ; Su-Ling Lee, <i>Chung-Jung Christian University</i>	
14:48		
<b>C3L-A.2</b>	<b>Constant Time O(1) Contextual and Variational Contrast Enhancement with Integral Histogram .....</b>	<b>2769</b>
	Yu-Wen Tsai, Fan-Chieh Cheng, Shanq-Jang Ruan, <i>National Taiwan University of Science and Technology</i>	
15:06		
<b>C3L-A.3</b>	<b>Image Co-Segmentation via Active Contours .....</b>	<b>2773</b>
	Fanman Meng, Hongliang Li, Guanghui Liu, <i>University of Electronic Science and Technology of China</i>	
15:24		
<b>C3L-A.4</b>	<b>Effective Image Haze Removal Using Dark Channel Prior and Post-Processing .....</b>	<b>2777</b>
	Soo-Chang Pei, Tzu-Yen Lee, <i>National Taiwan University</i>	
15:42		
<b>C3L-A.5</b>	<b>Edge-Preserving Image Decomposition Based on Guided Upper/Lower Envelops ..</b>	<b>2781</b>
	Soo-Chang Pei, Wen-Hui Chu, <i>National Taiwan University</i> ; Chih-Tsung Shen, <i>Academia Sinica</i>	
<b>C3L-B</b>	<b>Low Power Communication/Signal Processing Systems</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room E1	
Chair(s)	Sau-Gee Chen, <i>National Chiao Tung University</i> Paul K. Ampadu, <i>Massachusetts Institute of Technology</i>	
14:30		
<b>C3L-B.1</b>	<b>A Low Power Hearing Aid Computing Platform Using Lightweight Processing Elements .....</b>	<b>2785</b>
	Kuo-Chiang Chang, Yu-Wen Chen, Yu-Ting Kuo, Chih-Wei Liu, <i>National Chiao-Tung University</i>	
14:48		
<b>C3L-B.2</b>	<b>Design of a Low-Cost Low-Power Baseband-Processor for UHF RFID Tag with Asynchronous Design Technique .....</b>	<b>2789</b>
	Dingguo Wei, Chun Zhang, Yan Cui, Hong Chen, Zhihua Wang, <i>Tsinghua University</i>	
15:06		
<b>C3L-B.3</b>	<b>A Low-Power MMSE MIMO Detector Using Dynamic Voltage Wordlength Scaling for 4x4 MIMO-OFDM Systems .....</b>	<b>2793</b>
	Jaeseong Kim, Shingo Yoshizawa, Yoshikazu Miyanaga, <i>Hokkaido University</i>	
15:24		
<b>C3L-B.4</b>	<b>A 28<math>\mu</math>W Sub-Sampling Based Wake-Up Receiver with -70dBm Sensitivity for 915MHz ISM Band Applications .....</b>	<b>2797</b>
	Shahaboddin Moazzeni, Glenn E. R. Cowan, <i>Concordia University</i> ; Mohamad Sawan, <i>Ecole Polytechnique de Montreal</i>	
15:42		
<b>C3L-B.5</b>	<b>A Low Complexity Speech Coder for Binaural Communication in Hearing Aids .....</b>	<b>2801</b>
	Shuo-Wen Hsu, Tian-Sheuan Chang, <i>National Chiao-Tung University</i>	

<b>C3L-C</b>	<b>Statistical and Blind Signal Processing</b>
Time	Wednesday, May 23, 2012 (14:30 - 16:00)
Place	Room E2
Chair(s)	Zhiping Lin, <i>Nanyang Technological University</i> Weixing Zheng, <i>University of Western Sydney</i>
14:30	
<b>C3L-C.1</b>	<b>Coping with Saturating Projection Stages in RMPI-Based Compressive Sensing ....2805</b>
	Mauro Mangia, Riccardo Rovatti, <i>University of Bologna</i> ; Fabio Pareschi, Gianluca Setti, <i>University of Ferrara</i> ; Giovanni Frattini, <i>Texas Instruments</i>
14:48	
<b>C3L-C.2</b>	<b>Robust Logistic Principal Component Regression for Classification of Data in Presence of Outliers .....2809</b>
	H. C. Wu, S. C. Chan, K. M. Tsui, <i>The University of Hong Kong</i>
15:06	
<b>C3L-C.3</b>	<b>Recursive Independent Component Analysis for Online Blind Source Separation ...2813</b>
	Muhammad Tahir AKHTAR, Tzyy-Ping Jung, Scott Makeig, Gert Cauwenberghs, <i>University of California San Diego</i>
15:24	
<b>C3L-C.4</b>	<b>Blind Closed Form Parameters Estimation for Hybrid Sources .....2817</b>
	Ke Deng, Qinye Yin, Yan Zhang, Huiming Wang, <i>Xi'an Jiaotong University</i>
15:42	
<b>C3L-C.5</b>	<b>Blind Closed-Form DOA Estimation for Distributed Sources .....2821</b>
	Wei Li, Ke Deng, Qinye Yin, Huiming Wang, <i>Xi'an Jiaotong University</i>
<b>C3L-D</b>	<b>Low Power Reference Circuits</b>
Time	Wednesday, May 23, 2012 (14:30 - 16:00)
Place	Room E3
Chair(s)	Julio Georgiou, <i>University of Cyprus</i>
14:30	
<b>C3L-D.1</b>	<b>A Compact Low-Power Supply-Insensitive CMOS Current Reference .....2825</b>
	Chen Zhao, Randall Geiger, Degang Chen, <i>Iowa State University</i>
14:48	
<b>C3L-D.2</b>	<b>A Simple Voltage Reference with Ultra Supply Independency .....2829</b>
	Shun Bai, Stan Skafidas, <i>The University of Melbourne</i>
15:06	
<b>C3L-D.3</b>	<b>A Low Noise, 1.28<math>\mu</math>A Quiescent Regulator with Broadband High PSR for Micropower Sensors .....2833</b>
	G. T. Ong, P. K. Chan, <i>Nanyang Technological University</i>
15:24	
<b>C3L-D.4</b>	<b>A 0.5V Nanowatt CMOS Voltage Reference with Two High PSRR Outputs .....2837</b>
	Xiaocheng Jing, Philip K.T. Mok, Cheng Huang, Fan Yang, <i>The Hong Kong University of Science and Technology</i>
15:42	
<b>C3L-D.5</b>	<b>A Sub 1V Self Clocked Switched Capacitor Bandgap Reference with a Current Consumption of 180nA .....2841</b>
	Martin Wiessflecker, Günter Hofer, Gerald Holweg, <i>Infineon Technologies Austria AG</i> ; Hannes Reinisch, Wolfgang Pribyl, <i>Graz University of Technology</i>

<b>C3L-E</b>	<b>Advanced MIMO Detector</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room E4	
Chair(s)	Jaejoon Kim, <i>Ulsan National Institute of Science &amp; Technology</i> Franklin Bien, <i>Ulsan National Institute of Science &amp; Technology</i>	
14:30		
<b>C3L-E.1</b>	<b>High-Throughput Sorted MMSE QR Decomposition for MIMO Detection .....</b>	<b>2845</b>
	Yifan Ren, Guanghui He, Jun Ma, <i>Shanghai Jiao Tong University</i>	
14:48		
<b>C3L-E.2</b>	<b>VLSI Implementation of an 855 Mbps High Performance Soft-Output K-Best MIMO Detector .....</b>	<b>2849</b>
	Chunhui Ju, Jun Ma, Chengzhi Tian, Guanghui He, <i>Shanghai Jiao Tong University</i>	
15:06		
<b>C3L-E.3</b>	<b>A Unified Multi-Mode MIMO Detector with Soft-Output .....</b>	<b>2853</b>
	Liang Liu, Johan Löfgren, Peter Nilsson, <i>Lund University</i>	
15:24		
<b>C3L-E.4</b>	<b>Sorted QR Decomposition for High-Speed MMSE MIMO Detection Based Wireless Communication Systems .....</b>	<b>2857</b>
	Yuya Miyaoka, Yuhei Nagao, Masayuki Kurosaki, Hiroshi Ochi, <i>Kyushu Institute of Technology</i>	
15:42		
<b>C3L-E.5</b>	<b>Architectures for MIMO-OFDM Simplified Decision Directed Channel Estimation ...</b>	<b>2861</b>
	Andreas Minweggen, Dominik Auras, Uwe Deidersen, Gerd Ascheid, <i>RWTH Aachen</i>	
<b>C3L-F</b>	<b>Harvesting/Scavenging Energy for Biomedical Devices I</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room E7	
Chair(s)	Philipp Häfliger, <i>University of Oslo</i> Guoxing Wang, <i>Shanghai Jiao Tong University</i>	
14:30		
<b>C3L-F.1</b>	<b>Ultrasound Energy Harvesting System for Deep Implanted-Medical-Devices (IMDs) .....</b>	<b>2865</b>
	Francesco Mazzilli, Vincent Praplan, Catherine Dehollain, <i>Ecole Polytechnique Fédérale de Lausanne;</i> Prakash E. Thoppay, <i>Marvell</i>	
14:48		
<b>C3L-F.2</b>	<b>High-Efficiency CMOS Rectifier for Fully Integrated mW Wireless Power Transfer ..</b>	<b>2869</b>
	Meysam Zargham, P. Glenn Gulak, <i>University of Toronto</i>	
15:06		
<b>C3L-F.3</b>	<b>Fully-Integrated, Power-Efficient Regulator and Bandgap Circuits for Wireless-Powered Biomedical Applications .....</b>	<b>2873</b>
	Meysam Zargham, P. Glenn Gulak, <i>University of Toronto</i>	
15:24		
<b>C3L-F.4</b>	<b>Simulation Oriented Rectenna Design Methodology for Remote Powering of Wireless Sensor Systems .....</b>	<b>2877</b>
	Onur Kazanc, Catherine Dehollain, <i>Ecole Polytechnique Federale de Lausanne;</i> Franco Maloberti, <i>University of Pavia</i>	
15:42		
<b>C3L-F.5</b>	<b>A 1.1<math>\mu</math>W 2.1<math>\mu</math>VRMS Input Noise Chopper-Stabilized Amplifier for Bio-Medical Applications .....</b>	<b>2881</b>
	Christopher J. Mandic, Daibashish Gangopadhyay, David J. Allstot, <i>University of Washington</i>	

<b>C3L-G</b>	<b>Neural Implementations</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 307A	
Chair(s)	Andre van Schaik, <i>University of Western Sydney</i> Giacomo Indiveri, <i>INI, ETH Zurich</i>	
14:30		
<b>C3L-G.1</b>	<b>Sigma-Delta Gradient-Descent Learning for Online Real-Time Calibration of Digitally-Assisted Analog Circuits .....</b>	<b>2885</b>
	Ravi Krishna Shaga, Shantanu Chakrabartty, <i>Michigan State University</i>	
14:48		
<b>C3L-G.2</b>	<b>A Dual-Mode Weight Storage Analog Neural Network Platform for on-Chip Applications .....</b>	<b>2889</b>
	Dzmitry Maliuk, <i>Yale University</i> ; Yiorgos Makris, <i>The University of Texas at Dallas</i>	
15:06		
<b>C3L-G.3</b>	<b>Self-Adaptive Quasi-Gaussian Circuits for Analog on-Chip-Trainable Multi-Class Classifiers .....</b>	<b>2893</b>
	Wenjun Xia, Tadashi Shibata, <i>The University of Tokyo</i>	
15:24		
<b>C3L-G.4</b>	<b>An FPGA-Based Approach for Parameter Estimation in Spiking Neural Networks ...</b>	<b>2897</b>
	Horacio Rostro-Gonzalez, Guillaume Garreau, Andreas Andreou, Julius Georgiou, <i>University of Cyprus</i> ; Jose H. Barron-Zambrano, Cesar Torres-Huitzil, <i>CINVESTAV</i>	
15:42		
<b>C3L-G.5</b>	<b>Architecture and Implementation of an Associative Memory Using Sparse Clustered Networks .....</b>	<b>2901</b>
	Hooman Jarollahi, Naoya Onizawa, Vincent Gripon, Warren J. Gross, <i>McGill University</i>	
<b>C3L-H</b>	<b>Visual Signal Reconstruction and Coding</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 307B	
Chair(s)	Daniel Lun, <i>The Hong Kong Polytechnic University</i> Bing Zeng, <i>Hong Kong University of Science &amp; Technology</i>	
14:30		
<b>C3L-H.1</b>	<b>Parallelizing Video Transcoding Using Map-Reduce-Based Cloud Computing .....</b>	<b>2905</b>
	Feng Lao, Xinggong Zhang, Zongming Guo, <i>Peking University</i>	
14:48		
<b>C3L-H.2</b>	<b>Efficient Computation Reduction Algorithms for Frame Rate Up-Conversion .....</b>	<b>2909</b>
	Ho Sun Jung, Myung Hoon Sunwoo, <i>Ajou University</i> ; Un Seob Kim, <i>Telechips Inc.</i>	
15:06		
<b>C3L-H.3</b>	<b>Interpolation Based Symmetrical Predictor Structure for Lossless Image Coding ...</b>	<b>2913</b>
	Vinit Jakhetiya, Oscar C. AU, <i>The Hong Kong University of Science and Technology</i> ; Sunil Prasad Jaiswal, <i>The LNM Institute of Information Technology</i> ; Anil Kumar Tiwari, <i>Indian Institute of Technology Rajasthan</i>	
15:24		
<b>C3L-H.4</b>	<b>Nonlinear Image Reconstruction in Block-Based Compressive Imaging .....</b>	<b>2917</b>
	Jun Ke, Edmund Y. Lam, <i>The University of Hong Kong</i>	
15:42		
<b>C3L-H.5</b>	<b>Design of Low-Complexity, Non-Separable 2-D Transforms Based on Butterfly Structures .....</b>	<b>2921</b>
	Haoming Chen, Bing Zeng, <i>The Hong Kong University of Science and Technology</i>	

<b>C3L-J</b>	<b>Shortcuts in Circuits and Systems Education</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 307C	
Chair(s)	Cem Goknar, <i>Dongus University</i> Tokunbo Ogunfunmi, <i>Santa Clara University</i>	
14:30		
<b>C3L-J.1</b>	<b>Shortcuts in Circuits and Systems Education with a Case Study of the Thévenin/Helmholtz and Norton/Mayer Equivalents .....</b>	<b>2925</b>
	Joos Vandewalle, <i>Katholieke Universiteit Leuven</i>	
14:48		
<b>C3L-J.2</b>	<b>A First Course in Electronics .....</b>	<b>2929</b>
	Bernhard E. Boser, <i>University of California, Berkeley</i>	
15:06		
<b>C3L-J.3</b>	<b>The Elegant Geometry of Fourier Analysis .....</b>	<b>2933</b>
	Babak Ayazifar, <i>University of California, Berkeley</i>	
15:24		
<b>C3L-J.4</b>	<b>From Van der Pol to Chua : an Introduction to Nonlinear Dynamics and Chaos for Second Year Undergraduates .....</b>	<b>2937</b>
	Scott Ambelang, Bharathwaj Muthuswamy, <i>Milwaukee School of Engineering</i>	
<b>C3L-K</b>	<b>Digital Circuit Design I</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 308A	
Chair(s)	Xinmiao Zhang, <i>Case Western Reserve University</i> Bah-Hwee Gwee, <i>Nanyang Technological University</i>	
14:30		
<b>C3L-K.1</b>	<b>A Pre-Emphasis Circuit Design for High Speed on-Chip Global Interconnect .....</b>	<b>2941</b>
	Jian-Fei Jiang, Wei-Guang Sheng, Zhi-gang Mao, Wei-feng He, <i>Shanghai Jiao Tong University</i>	
14:48		
<b>C3L-K.2</b>	<b>MRAM Crossbar Based Configurable Logic Block .....</b>	<b>2945</b>
	Yahya Lakys, Weisheng Zhao, Jacques-Olivier Klein, Claude Chappert, <i>Université Paris-Sud 11</i>	
15:06		
<b>C3L-K.3</b>	<b>A 275 MHz Quadrature Modulator in 0.18-<math>\mu</math>m CMOS .....</b>	<b>2949</b>
	Shilpa Agarwal, Tzu-Chieh Kuo, Alan N. Willson, Jr., <i>University of California</i>	
15:24		
<b>C3L-K.4</b>	<b>Adaptive Subthreshold Timing-Error Detection 8 Bit Microcontroller in 65 nm CMOS .....</b>	<b>2953</b>
	Erkka Laulainen, Matthew J. Turnquist, Lauri Koskinen, <i>Aalto University</i> ; Jani Mäkipää, <i>VTT National Research Centre of Finland</i>	

<b>C3L-L</b>	<b>Interface Circuits for Sensors</b>	
Time	Wednesday, May 23, 2012 (14:30 - 16:00)	
Place	Room 308B	
Chair(s)	Deuk Heo, <i>Washington State University</i>	
14:30		
<b>C3L-L.1</b>	<b>A Sub-1<math>\mu</math>W, 16kHz Current-Mode SAR-ADC for Single-Neuron Spike Recording .....</b>	<b>2957</b>
	Bård Haaheim, Timothy G. Constandinou, <i>Imperial College London</i>	
14:48		
<b>C3L-L.2</b>	<b>A Wide Dynamic Range and Fast Update Rate Integrated Interface for Capacitive Sensors Array .....</b>	<b>2961</b>
	Xu Zhang, Ming Liu, Hong Chen, Chun Zhang, Zhihua Wang, <i>Tsinghua University</i>	
15:06		
<b>C3L-L.3</b>	<b>Feed-Forward Output Swing Prediction AGC with Parallel-Detect Singular-Store Peak Detector .....</b>	<b>2965</b>
	Shang-Hsien Yang, Chua-Chin Wang, <i>National Sun Yat-Sen University</i>	
15:24		
<b>C3L-L.4</b>	<b>A 12-Bit 7 <math>\mu</math>W/Channel 1 kHz/Channel Incremental ADC for Biosensor Interface Circuits .....</b>	<b>2969</b>
	Chia-Hung Chen, Joseph Crop, Patrick Chiang, Gabor C. Temes, <i>Oregon State University</i> ; Jeongseok Chae, <i>Nextchip</i>	
15:42		
<b>C3L-L.5</b>	<b>An All-CMOS Low Supply Voltage Temperature Sensor Front-End with Error Correction Techniques .....</b>	<b>2973</b>
	Li Lu, Changzhi Li, <i>Texas Tech University</i> ; Jinghong Chen, <i>Southern Methodist University</i>	
<b>C4P-N</b>	<b>Calibration Techniques for Data Converters III</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Alyssa Apsel, <i>Cornell University</i>	
<b>C4P-N.1</b>	<b>A Self Calibration Technique for Tunable Continuous-Time Bandpass Delta-Sigma Modulators .....</b>	<b>2977</b>
	Mohamed Afifi, Ahmed Shahein, Michael Maurer, Matthias Keller, Yiannos Manoli, <i>University of Freiburg</i>	
<b>C4P-N.2</b>	<b>Joint Sampling-Time Error and Channel Skew Calibration of Time-Interleaved ADC in Multichannel Fiber Optic Receivers .....</b>	<b>2981</b>
	Benjamin T. Reyes, Mario R. Hueda, <i>Universidad Nacional de Cordoba</i> ; Venu Gopinathan, <i>Texas Instruments</i> ; Pablo S. Mandolesi, <i>Universidad Nacional del Sur</i>	
<b>C4P-N.3</b>	<b>Radix Based Digital Calibration Technique for Pipelined ADC Using Nyquist Sampling of Sinusoid .....</b>	<b>2985</b>
	Sounak Roy, Bibhudatta Sahoo, Swapna Banerjee, <i>Indian Institute of Technology, Kharagpur</i>	
<b>C4P-N.4</b>	<b>Current-Mode Reference Shifting Solution for MDAC-Based Analog-to-Digital Converters .....</b>	<b>2989</b>
	João Pacheco, Michael Figueiredo, Nuno Paulino, João Goes, <i>Universidade Nova de Lisboa</i>	
<b>C4P-N.5</b>	<b>Calibration Technique for SAR Analog-to-Digital Converters .....</b>	<b>2993</b>
	Tao Tong, Wenhuan Yu, Pavan K. Hanumolu, Gabor C. Temes, <i>Oregon State University</i>	

<b>C4P-P</b>	<b>Sigma-Delta Converters II</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Salvatore Pennisi, <i>Università di Catania</i>	
<b>C4P-P.1</b>	<b>Input Dependent Clock Jitter in High Speed and High Resolution ADCs .....</b>	<b>2997</b>
	Amin Chegeni, Reza Shayanfar, Khayrollah Hadidi, Abdollah Khoei, <i>Urmia University</i>	
<b>C4P-P.2</b>	<b>Approaches to Digital Compensation of Excess Loop Delay in Continuous-Time Delta-Sigma Modulators Using a Scaled Quantizer .....</b>	<b>3001</b>
	Chongjun Ding, Liang Zou, Matthias Keller, Yiannos Manoli, <i>University of Freiburg</i>	
<b>C4P-P.3</b>	<b>Interference Rejection in Delay Line Based Quadrature Band-Pass Sigma-Delta Modulators .....</b>	<b>3005</b>
	Nithin Kumar Y.B., Edoardo Bonizzoni, Franco Maloberti, <i>University of Pavia</i> ; Amit Patra, <i>Indian Institute of Technology, Kharagpur</i>	
<b>C4P-P.4</b>	<b>High Resolution Frequency-Based Delta-Sigma Modulator Utilizing Multi-Phase Quantizer .....</b>	<b>3009</b>
	Tuan-Vu Cao, Dag T. Wisland, Tor Sverre Lande, <i>University of Oslo</i>	
<b>C4P-Q</b>	<b>Digital Circuit Design II</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Izzet Kale, <i>University of Westminster</i> Vojin G. Oklobdzija, <i>New Mexico State University</i>	
<b>C4P-Q.1</b>	<b>State Encoding Watermarking for Field Authentication of Sequential Circuit Intellectual Property .....</b>	<b>3013</b>
	Li Zhang, Chip-Hong Chang, <i>Nanyang Technological University</i>	
<b>C4P-Q.2</b>	<b>Dual-Rail/Single-Rail Hybrid Logic Design for High-Performance Asynchronous Circuit .....</b>	<b>3017</b>
	Zhengfan Xia, Shota Ishihara, Masanori Hariyama, Michitaka Kameyama, <i>Tohoku University</i>	
<b>C4P-Q.3</b>	<b>Exploiting Negative Quantum Capacitance of Carbon Nanotube FETs for Low Power Applications .....</b>	<b>3021</b>
	Md. Sajjad Rahaman, Masud H Chowdhury, <i>University of Illinois at Chicago</i>	
<b>C4P-Q.4</b>	<b>An LDPC Decoding Method for Fault-Tolerant Digital Logic .....</b>	<b>3025</b>
	Yangyang Tang, Emmanuel Boutillon, <i>Université de Bretagne Sud</i> ; Chris Winstead, <i>Utah State University</i> ; Christophe Jégo, <i>Institut Polytechnique Bordeaux</i> ; Michel Jézéquel, <i>Institut TELECOM/TELECOM Bretagne</i>	
<b>C4P-Q.5</b>	<b>LCMOS: Light-Powered Standard CMOS Circuits .....</b>	<b>3029</b>
	Jordi Madrenas, Daniel Fernández, <i>Universitat Politècnica de Catalunya</i> ; Chunyan Wang, <i>Concordia University</i>	



<b>C4P-R</b>	<b>Arithmetic and Decoding Circuits</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Zhiyuan Yan, <i>Lehigh University</i> Jin-Gyun Chung, <i>Chonbuk National University</i>	
<b>C4P-R.1</b>	<b>GF(2<sup>n</sup>) Montgomery Multiplication Using Polynomial Residue Arithmetic .....</b>	<b>3033</b>
	Dimitrios Schinianakis, Thanos Stouraitis, <i>University of Patras</i> ; Alexander Skavantzios, <i>Louisiana State University</i>	
<b>C4P-R.2</b>	<b>High Speed Dual Mode Logic Carry Look Ahead Adder .....</b>	<b>3037</b>
	Itamar Levi, Ori Bass, Asaf Kaizerman, Alexander Belenky, Alexander Fish, <i>Ben-Gurion University of the Negev</i>	
<b>C4P-R.3</b>	<b>Low-Power LDPC Decoding Based on Iteration Prediction .....</b>	<b>3041</b>
	Xinmiao Zhang, Fang Cai, <i>Case Western Reserve University</i> ; C. J. Richard Shi, <i>University of Washington</i>	
<b>C4P-R.4</b>	<b>High-Frequency Sequential Decimal Multipliers .....</b>	<b>3045</b>
	Amir Kaivani, Li Chen, Seokbum Ko, <i>University of Saskatchewan</i>	
<b>C4P-R.5</b>	<b>Fast Scalable Radix-4 Montgomery Modular Multiplier .....</b>	<b>3049</b>
	Sheng-Hong Wang, Wen-Ching Lin, Jheng-Hao Ye, Ming-Der Shieh, <i>National Cheng Kung University</i>	
<b>C4P-S</b>	<b>DSP Circuit Design III</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Mladen Berekovic, <i>Technische Universität Braunschweig</i> Prasad Kumar Meher, <i>A-STAR, Institute for Infocomm Research</i>	
<b>C4P-S.1</b>	<b>FPGA-Based Real Time Extraction of Visual Features .....</b>	<b>3053</b>
	Merwan Birem, Francois Berry, <i>Universite Blaise Pascal</i>	
<b>C4P-S.2</b>	<b>Flexible IME Instruction and its Architecture for Various Fast ME Algorithms .....</b>	<b>3057</b>
	Tae Sun Kim, Myung Hoon Sunwoo, <i>Ajou University</i> ; Ho Il Bang, <i>LG Electronics</i>	
<b>C4P-S.3</b>	<b>ASIP-Based Control System for LED Matrix Display .....</b>	<b>3061</b>
	Joon Ho Hyun, Myung Jin Park, Young Hwan Kim, <i>Pohang University of Science and Technology</i> ; Hi-Seok Kim, <i>Cheongju University</i>	
<b>C4P-S.4</b>	<b>A Low-Complexity High-Throughput ASIC for the SC-FDMA MIMO Detectors .....</b>	<b>3065</b>
	Katayoun Neshatpour, Mojtaba Mahdavi, Mahdi Shabany, <i>Sharif University of Tehcnology</i>	
<b>C4P-S.5</b>	<b>A Systolic-Array Architecture for First-Order 4-D IIR Frequency-Planar Digital Filters .....</b>	<b>3069</b>
	Randeel Wimalagunaratne, Arjuna Madanayake, <i>University of Akron</i> ; Donald G. Dansereau, <i>University of Sydney</i> ; Len T. Bruton, <i>University of Calgary</i>	

<b>C4P-T</b>	<b>Digital Circuit Design III</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Bah-Hwee Gwee, <i>Nanyang Technological University</i> Izzet Kale, <i>University of Westminster</i>	
<b>C4P-T.1</b>	<b>Multi-Purpose Systems: a Novel Dataflow-Based Generation and Mapping Strategy .....</b>	<b>3073</b>
	J.-F. Nezan, <i>European university of Brittany</i> ; N. Siret, M. Wipliez, <i>Synow</i> ; F. Palumbo, L. Raffo, <i>University of Cagliari</i>	
<b>C4P-T.2</b>	<b>Low Power Digital Signal Processing Scheme via Stochastic Logic Protection .....</b>	<b>3077</b>
	Jienan Chen, Jianhao Hu, Shuyang Li, <i>University of Electronic Science and Technology of China</i>	
<b>C4P-T.3</b>	<b>Design for Cold Test Elimination - Facing the Inverse Temperature Dependence (ITD) Challenge .....</b>	<b>3081</b>
	Mohd Azman Abdul Latif, <i>Intel Corporation</i> ; Noohul Basheer Zain Ali, Fawnizu Azmadi Hussin, <i>Universiti Teknologi Petronas</i>	
<b>C4P-T.4</b>	<b>A Fast Wake-Up Power Gating Technique with Inducing a Balanced Rush Current .....</b>	<b>3086</b>
	Chao-Yang Chang, Pai-Cheng Tso, Chung-Hsun Huang, <i>National Chung Cheng University</i> ; Po-Hui Yang, <i>National Yunlin University of Science and Technology</i>	
<b>C4P-T.5</b>	<b>Coding for Jointly Optimizing Energy and Peak Current in Deep Sub-Micron VLSI Interconnects .....</b>	<b>3090</b>
	Eric P. Kim, <i>University of Illinois at Urbana-Champaign</i> ; Hun-Seok Kim, Manish Goel, <i>Texas Instruments</i>	
<b>C4P-U</b>	<b>Sensory Systems I</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Tim Constandinou, <i>Imperial College London</i>	
<b>C4P-U.1</b>	<b>80dB Dynamic Range 100KHz Bandwidth Inverter-Based Sigma Delta ADC for CMOS Image Sensor .....</b>	<b>3094</b>
	Fang Tang, Bo Wang, Amine Bermak, <i>Hong Kong University of Science and Technology</i>	
<b>C4P-U.2</b>	<b>Evidence of the Lateral Collection Significance in Small CMOS Photodiodes .....</b>	<b>3098</b>
	B. Blanco-Filgueira, P. López, M. Suárez, <i>University of Santiago de Compostela</i> ; J. Döge, <i>Fraunhofer Institute for Integrated Circuits</i> ; J. B. Roldán, <i>University of Granada</i>	
<b>C4P-U.3</b>	<b>Close-Proximity, Real-Time Thermoacoustic Sensors: Design, Characterization, and Testing .....</b>	<b>3102</b>
	Michael Choi, Jie Chen, <i>University of Alberta</i> ; Woon Ang, <i>IntelligentNano Inc.</i>	
<b>C4P-U.4</b>	<b>Direction-of-Arrival Estimation Using Sparse Variable Projection Optimization .....</b>	<b>3106</b>
	Ji-an Luo, Xiao-Ping Zhang, <i>Ryerson University</i> ; Zhi Wang, <i>Zhejiang University</i>	
<b>C4P-U.5</b>	<b>Addressable Current Reference Array with 170dB Dynamic Range .....</b>	<b>3110</b>
	Minhao Yang, Shih-Chii Liu, Chenghan Li, Tobi Delbruck, <i>University of Zurich and ETH Zürich</i>	

<b>C4P-V</b>	<b>Sensory Systems II</b>	
Time	Wednesday, May 23, 2012 (09:40 - 11:10)	
Place	Poster Area	
Chair(s)	Tim Constandinou, <i>Imperial College London</i>	
<b>C4P-V.1</b>	<b>A Sub-1V BJT-Based CMOS Temperature Sensor from -55 °C to 125 °C .....</b>	<b>3114</b>
	Bo Wang, Fang Tang, Amine Bermak, <i>Hong Kong University of Science and Technology</i> ; Man Kay Law, <i>University of Macau</i>	
<b>C4P-V.2</b>	<b>Process Compensated CMOS Temperature Sensor for Microprocessor Application .....</b>	<b>3118</b>
	Yaesuk Jeong, Farrokh Ayazi, <i>Georgia Institute of Technology</i>	
<b>C4P-V.3</b>	<b>Power-Efficient Focal-Plane Image Representation for Extraction of Enriched Viola-Jones Features .....</b>	<b>3122</b>
	Jorge Fernández-Berni, Laurentiu Acasandrei, Ricardo Carmona-Galán, Ángel Barriga-Barros, Ángel Rodríguez-Vázquez, <i>Universidad de Sevilla</i>	
<b>C4P-V.4</b>	<b>A 0.02 nJ Self-Calibrated 65nm CMOS Delay Line Temperature Sensor .....</b>	<b>3126</b>
	Shuang Xie, Wai Tung Ng, <i>University of Toronto</i>	
<b>C4P-V.5</b>	<b>Fabrication of a Dual-Layer Aluminum Nanowires Polarization Filter Array .....</b>	<b>3130</b>
	Viktor Gruev, <i>Washington University in St. Louis</i>	
<b>C5P-N</b>	<b>Voltage Regulator and Data Converter</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Hoi Lee, <i>University of Texas at Dallas</i>	
<b>C5P-N.1</b>	<b>Peaking Reduced STF Design for CT Sigma-Delta Modulators with Selective Pole Compensation .....</b>	<b>3134</b>
	Christoph Zorn, Christian Widemann, Wolfgang Mathis, <i>Leibniz University of Hanover</i> ; Timon Brückner, Maurits Ortmanns, <i>University of Ulm</i>	
<b>C5P-N.2</b>	<b>A Power Efficient MDAC Design with Correlated Double Sampling for a 2-Step-Flash ADC .....</b>	<b>3138</b>
	Rudolf Ritter, John G. Kauffman, Maurits Ortmanns, <i>University of Ulm</i>	
<b>C5P-N.3</b>	<b>Design of a Curvature-Corrected Bandgap Reference with 7.5ppm/C Temperature Coefficient in 0.35µm CMOS Process .....</b>	<b>3142</b>
	Pinar Basak Basyurt, Devrim Yilmaz Aksin, <i>Istanbul Technical University</i>	
<b>C5P-N.4</b>	<b>A Compact Resistorless 1.5-V CMOS Current Mirror with a 30-ppm/°C Temperature Coefficient .....</b>	<b>3146</b>
	Carlos Quemada, Travis L. Cochran, Dong Sam Ha, <i>Virginia Polytechnic Institute and State University</i>	
<b>C5P-N.5</b>	<b>Fast Transient Response CFA-Based LDO Regulator .....</b>	<b>3150</b>
	Alireza Saberhari, <i>University of Guilan</i>	

<b>C5P-P</b>	<b>Time-to-Digital Converter</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Sameer Sonkusale, <i>Tufts University</i>	
<b>C5P-P.1</b>	<b>Fast and Accurate Estimation of Gain and Sample-Time Mismatches in Time-Interleaved ADCs Using on-Chip Oscillators .....</b>	<b>3154</b>
	E. Santin, L. B. Oliveira, J. Goes, <i>Universidade Nova de Lisboa</i>	
<b>C5P-P.2</b>	<b>A High-Resolution Time-to-Digital Converter Based on Parallel Delay Elements .....</b>	<b>3158</b>
	Chen Yao, Fredrik Jonsson, Jian Chen, Li-Rong Zheng, <i>Royal Institute of Technology</i>	
<b>C5P-P.3</b>	<b>A Compressed Sensing Analog-to-Information Converter with Edge-Triggered SAR ADC Core .....</b>	<b>3162</b>
	Michael Trakimas, Sameer Sonkusale, <i>Tufts University</i> ; Timothy Hancock, <i>MIT Lincoln Laboratory</i>	
<b>C5P-P.4</b>	<b>A 22-Bit 110ps Time-Interpolated Time-to-Digital Converter .....</b>	<b>3166</b>
	Jian Guo, Sameer Sonkusale, <i>Tufts University</i>	
<b>C5P-P.5</b>	<b>A 51-dB SNDR DCO-Based TDC Using Two-Stage Second-Order Noise Shaping .....</b>	<b>3170</b>
	Toshihiro Konishi, Keisuke Okuno, Shintaro Izumi, Masahiko Yoshimoto, Hiroshi Kawaguchi, <i>Kobe University</i>	
<b>C5P-Q</b>	<b>Digital Filters</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Hakan Johansson, <i>Linköping University</i> Raija Lehto, <i>Tempere University of Technology</i>	
<b>C5P-Q.1</b>	<b>Design of Variable Fractional Order Differentiator Using a Modular Cascade Structure .....</b>	<b>3174</b>
	Chien-Cheng Tseng, <i>National Kaohsiung First University of Science and Technology</i> ; Su-Ling Lee, <i>Chung-Jung Christian University</i>	
<b>C5P-Q.2</b>	<b>Transfer Functions of Second-Order Digital Filters with Two Equal Second-Order Modes .....</b>	<b>3178</b>
	Shunsuke Yamaki, Masahide Abe, Masayuki Kawamata, <i>Tohoku University</i>	
<b>C5P-Q.3</b>	<b>Design of Variable Linear Phase FIR Filters Based on Second Order Frequency Transformations and Coefficient Decimation .....</b>	<b>3182</b>
	S. J. Darak, A. P. Vinod, <i>Nanyang Technological University</i> ; E. M-K. Lai, <i>Massey University</i>	
<b>C5P-Q.4</b>	<b>Reconfigurable Two-Stage Nyquist Filters Utilizing the Farrow Structure .....</b>	<b>3186</b>
	Amir Eghbali, Håkan Johansson, <i>Linköping University</i>	
<b>C5P-Q.5</b>	<b>Delta Operator Based 2-D VLSI Filter Structures Without Global Broadcast and Incorporation of the Quadrantal Symmetry .....</b>	<b>3190</b>
	I-Hung Khoo, <i>California State University Long Beach</i> ; Hari C. Reddy, <i>National Chiao-Tung University</i> ; Lan-Da Van, Chin-Teng Lin, <i>National Chiao-Tung University</i>	

<b>C5P-R</b>	<b>DSP Algorithm and Applications I</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Izzet Kale, <i>University of Westminster</i> Oscar Gustafsson, <i>Linköping University</i>	
<b>C5P-R.1</b>	<b>Issues in Enhanced Narrow-Band Signal Attenuation in DSSS BPSK Receiver Systems .....</b>	<b>3194</b>
	Michael A. Soderstrand, <i>University of California</i>	
<b>C5P-R.2</b>	<b>Circle Fitting Using Semi-Definite Programming .....</b>	<b>3198</b>
	Zhenhua Ma, K.C. Ho, <i>University of Missouri</i> ; Le Yang, <i>Jiangnan University</i>	
<b>C5P-R.3</b>	<b>Automatic Music Genre Classification Based on Wavelet Package Transform and Best Basis Algorithm .....</b>	<b>3202</b>
	Shih-Hao Chen, Trieu-Kien Truong, <i>I-Shou University</i> ; Shi-Huang Chen, <i>Shu-Te University</i>	
<b>C5P-R.4</b>	<b>A Novel Analog-to-Residue Conversion Scheme Based on Clock Overlapping Technique .....</b>	<b>3206</b>
	Qi Huang, Di Zhu, Liter Siek, <i>Nanyang Technological University</i>	
<b>C5P-R.5</b>	<b>Efficient Multidimensional Sampling Scheme for Fourier Transform Estimation .....</b>	<b>3210</b>
	Mustafa Al-Ani, Andrzej Tarczynski, <i>University of Westminster</i>	
<b>C5P-S</b>	<b>DSP Algorithm and Applications II</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	David Tay, <i>La Trobe University</i> Bah-Hwee Gwee, <i>Nanyang Technological University</i>	
<b>C5P-S.1</b>	<b>Linear-Prediction Whitening with Convex Combining in Constant Modulus Equalizers .....</b>	<b>3214</b>
	Tokunbo Ogunfunmi, David Hardell, <i>Santa Clara University</i>	
<b>C5P-S.2</b>	<b>Using a Scaling Factor in <math>O(1/N)</math> for the Fixed-Point Implementation of the Second-Order Goertzel Filter .....</b>	<b>3218</b>
	Modesto Medina-Melendrez, <i>Technological Institute of Culiacan</i> ; Miguel Arias-Estrada, Albertina Castro, <i>National Institute for Astrophysics</i>	
<b>C5P-S.3</b>	<b>Active Noise Control with Bias Free Pre-Inverse Adaptive System .....</b>	<b>3222</b>
	Yusaku Tanaka, Naoto Sasaoka, Yoshio Itoh, <i>Tottori University</i> ; Masaki Kobayashi, <i>Chubu University</i>	
<b>C5P-S.4</b>	<b>Stack Memory Design for a Low-Cost Instruction Folding Java Processor .....</b>	<b>3226</b>
	Zi-Gang Lin, Han-Wen Kuo, Zi-Jing Guo, Chun-Jen Tsai, <i>National Chiao Tung University</i>	

<b>C5P-T</b>	<b>Digital Signal Processing</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	M.N.S. Swamy, <i>Concordia University</i> Yong Lian, <i>National University of Singapore</i>	
<b>C5P-T.1</b>	<b>Estimating Dither Thresholds from the Average of Halftone Dots .....</b>	<b>3230</b>
	Ken-Chung Ho, <i>National United University</i>	
<b>C5P-T.2</b>	<b>Feasibility Study of FPGA-Based Equalizer for 112-Gbit/s Optical Fiber Receivers ..</b>	<b>3234</b>
	Fredrik Toft, Niclas Rousk, Per Larsson-Edefors, <i>Chalmers University of Technology</i> ; Jonas Mårtensson, Marco Forzati, <i>Acreo AB</i> ; Bengt-Erik Olsson, <i>Ericsson AB</i>	
<b>C5P-T.3</b>	<b>Evaluation of F0 Estimation Using ZFR Based on Time-Varying Speech Analysis ...</b>	<b>3238</b>
	Keiichi Funaki, Takehito Higa, <i>University of the Ryukyus</i>	
<b>C5P-T.4</b>	<b>DCE3 - an Universal Real-Time Clustering Engine .....</b>	<b>3242</b>
	Andreas Wassatsch, Rainer Richter, <i>Max-Planck-Institute für Physik/HLL</i>	
<b>C5P-T.5</b>	<b>The Enhancement Net Power Control for Lifetime Improvement of AMOLED .....</b>	<b>3246</b>
	Kyounghoon Jang, Hosang Jo, Jihong Yuk, Hyunjung Kang, Bongsoon Kang, <i>Dong-A University</i>	
<b>C5P-U</b>	<b>New Directions in Computer-Aided Design</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Shih-Hsu Huang, <i>Chung Yuan Christian University</i> Mineo Kaneko, <i>Japan Advanced Institute of Science and Technology</i>	
<b>C5P-U.1</b>	<b>Logic Gates Dynamic Modeling by Means of an Ultra-Compact MOS Model .....</b>	<b>3250</b>
	Elio Consoli, Gianluca Giustolisi, Gaetano Palumbo, <i>Università degli Studi di Catania</i>	
<b>C5P-U.2</b>	<b>Efficient Assignment of Inter-Die Signals for Die-Stacking SiP Design .....</b>	<b>3254</b>
	Jin-Tai Yan, Chia-Han Kao, Ming-Chien Huang, Zhi-Wei Chen, <i>Chung-Hua University</i>	
<b>C5P-U.3</b>	<b>Identification of Soft Error Glitch-Propagation Paths: Leveraging SAT Solvers .....</b>	<b>3258</b>
	Ghaith Bany Hamad, Otmane Ait Mohamed, <i>Concordia University</i> ; Syed Rafay Hasan, <i>Tennessee Technological University</i> ; Yvon Savaria, <i>Ecole Polytechnique de Montréal</i>	
<b>C5P-U.4</b>	<b>A Novel Methodology for Power Delivery Network Optimization in 3-D ICs Using Through-Silicon-Via Technology .....</b>	<b>3262</b>
	Bongki Lee, Byunggyu Ahn, Jaehwan Kim, Minbeom Kim, Jongwha Chong, <i>Hanyang University</i>	
<b>C5P-U.5</b>	<b>PyCO: a Parallel Genetic Algorithm Optimization Tool for Analog Circuits .....</b>	<b>3266</b>
	Taimur G. Rabuske, Renan B. Pinheiro, Cesar R. Rodrigues, <i>Federal University of Santa Maria</i> ; Jorge Fernandes, <i>INESC-ID / Instituto Superior Técnico - Universidade Técnica de Lisboa</i>	

<b>C5P-V</b>	<b>Nanoelectronics and Gigascale Systems</b>	
Time	Wednesday, May 23, 2012 (11:30 - 13:00)	
Place	Poster Area	
Chair(s)	Chih-Wei Liu, <i>National Chiao Tung University</i> Robert Chen-Hao Chang, <i>National Chung Hsing University</i>	
<b>C5P-V.1</b>	<b>Fabrication of a Low Power CMOS-Compatible ZnO Nanocomb-Based Gas Sensor</b> .....	<b>3270</b>
	Xiaofang Pan, Amine Bermak, Zhiyong Fan, <i>The Hong Kong University of Science and Technology</i> ; Xiaojin Zhao, <i>Shenzhen University</i>	
<b>C5P-V.2</b>	<b>Substrate Noise Suppression Technique for Power Integrity of TSV 3D Integration</b> .....	<b>3274</b>
	Po-Jen Yang, Po-Tsang Huang, Wei Hwang, <i>National Chiao-Tung University</i>	
<b>C5P-V.3</b>	<b>Optimum Biasing and Design of High Performance Double Gate MOSFET RF Mixers</b> .....	<b>3278</b>
	Soumyasanta Laha, Michael Lorek, Savas Kaya, <i>Ohio University</i>	
<b>C5P-V.4</b>	<b>Accurate Modeling of Low Actuation Voltage RFMEMS Switches Using Artificial Neural Networks</b> .....	<b>3282</b>
	Amin Pak, Hooman Nabovati, Khalil Mafinezhad, <i>Sadjad Institute for Higher Education</i> ; Yasser Mafinejad, Abbas Kouzani, <i>Deakin University</i>	